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Recurrent Abdominal Pain in Primary and Tertiary Care: Differences and Similarities

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INTRODUCTION

Pediatric researchers have been exploring the topic of recurrent abdominal pain for 40 years since Apley (1975) first described the condition. Refinements in medical assessment and treatment, as well as methodological rigor have shaped and focused this research. No longer is the question "What causes the pain?" because the answer to that is clearly multifaceted. More targeted questions such as "What factors are associated with increased pain and disability?" and "For what portion of the abdominal pain population are these factors relevant?" are the kinds of questions that continue to expand our knowledge of recurrent abdominal pain (Walker, 1999).

The vast majority of studies of children with RAP have been conducted with tertiary care patients. Though differences in patient characteristics among community, primary, and tertiary treatment sites are seen in other diagnostic groups (Drossman, 1994; Labbe, 1998), little attention has been focused on the potential differences between children with recurrent abdominal pain treated in primary care versus tertiary care. The one identified study (Robins, Smith, & Proujansky, 2002) that sought to compare these two groups likely diminished group differences by recruiting through the newspaper and therefore selecting for those who were seeking psychological intervention related to RAP.

Potential differences between abdominal pain treated in primary care versus specialty care are particularly salient given recent recommendations by the American Academy of Pediatrics Subcommittee on Chronic Abdominal Pain (2005). The committee determined that chronic abdominal pain without alarm symptoms or signs (such as unexplained weight loss, persistent vomiting, blood in the stool, family history of inflammatory bowel disease), and with a normal

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physical exam could be worked up within primary pediatric care. Further, the committee recommended that the abdominal pain be "evaluated and treated in a biopsychosocial model of care." The treatment model would include assurance of no serious underlying organic condition underlying the pain, explanation of the ubiquity of functional pain (i.e., stress headache), and the primary treatment goal of "return to normal function rather than the complete disappearance of pain." Children seen by a pediatrician who are then referred to or seek specialty evaluation likely seek further reassurance about the causes/seriousness of the condition as well as complete pain relief. Escalation to tertiary care results in additional financial and time burden, reinforces a focus on the medical via additional testing, delays efforts to return to normal function, and may reinforce the sick role and begin a pattern of frequent health seeking for functional pain (Jarrett, Heitkemper, Czyzewski, & Shulman, 2003) Thus, understanding potential differences between those children seen only by pediatricians versus those seen by pediatric gastroenterologists may help further tailor RAP care.

Research on adults with medically unexplained symptoms has sought to identify characteristics that differentiate persons who seek treatment from those who do not. Higher distress, especially anxiety, and higher somatization (often defined as distress arising from perceived bodily dysfunction) predicts more frequent health care seeking in a variety of populations (Henningsen, Zimmerman, & Sattel, 2003; Koloski, Talley, & Boyce, 2003; Vandvik, Wilhelmsen, Ihlebaek, & Farup, 2004; Whitehead, Bosmanjian, Zonderman, Costa, & Shuster, 1988). These same constructs have been found to differentiate children with RAP from those without RAP (Campo et al., 2004; Walker, Garber, & Greene, 1991, 1993) and to characterize children with more chronic RAP (Ernst, Routh, & Harper, 1984; Walker et al., 1991). However it is not known whether child anxiety and somatization prompt more specialty health care utilization in children with RAP.

Parents typically initiate pediatric health care visits; therefore parent characteristics along with perceptions of their child's symptoms and functional disability may be determinants of healthcare seeking. Parents of children with high levels of health care use are believed to be more anxious (Janicke & Finney, 2001; Kinsman, Wildman, & Smucker, 1999). Further, there is evidence that parents with high personal somatic focus frequently take their children to the pediatrician and are likely to seek tertiary care consultations (Gulhati & Minty, 1998; Levy, Whitehead , Von Korff , & Feld , 2000). Although some evidence suggests that parents of children with RAP seen in tertiary care have high levels of general somatic complaints (Routh & Ernst, 1984; Walker, Garber, & Greene, 1994), it is unclear if this same pattern exists for parents of children with RAP seen in primary care.

Given the paucity of information regarding the characteristics of children with RAP who remain in the care of their pediatrician and how they may differ from those who see a pediatric gastroenterologist, we carried out the current study. We hypothesized that children seen by a gastroenterologist (RAP-GI) would exhibit greater disability due to abdominal pain, as well as more somatic complaints and internalizing symptoms than children with RAP seen by pediatricians (RAP-Peds), and that both groups would score higher on these constructs than controls. Additionally we hypothesized that mothers of RAP children seeing a gastroenterologist would report higher personal levels of anxiety and somatization compared with mothers of RAP children seen by their pediatricians, again with both groups scoring higher than mothers of control children.

MATERIALS AND METHODS

Participants

Seven- to ten-year old children with and without chronic abdominal pain and their mothers were recruited from a large pediatric health care network, which serves a large metropolitan

area and accepts both public and private insurance. In order to identify the vast majority of pediatric gastroenterology referrals in the city subjects also were recruited from two large, academically affiliated private pediatric gastroenterology practices. The continuum of care within the network and the private practices was such that access to tertiary pediatric GI care was available to anyone in the network.

Subject Selection and Recruitment Procedures

All recruitment and study procedures were approved by the institutional review board. Informed consent was obtained from parents and assent from children. Subjects were paid for their participation in the study.

Identification of RAP/Control Subjects—Participants with RAP were identified through a medical billing code search of all seven- to ten- year old children in the health care network. Pediatric and pediatric gastroenterology charts with the ICD-9 codes 789.0 (abdominal pain) and 564.00 (irritable bowel syndrome) were screened by trained research assistants to ascertain that no identified organic illness (e.g., gastroesophageal reflux, inflammatory bowel disease) or condition (e.g., constipation, lactose intolerance) accounted for the pain. Additionally, all chart reviews were examined by one of the authors (RJS, a pediatric gastroenterologist) to confirm that no known organic diagnosis remained a potential. Thus, RAP subjects met criteria outlined by von Baeyer and Walker (1999) for stage 2 classification of RAP (i.e., RAP without identified organic etiology). Similarly, they met the criteria outlined by the Pediatric Rome II criteria for functional abdominal pain or irritable bowel syndrome (i.e., subgroups of RAP (Rasquin-Weber et al., 1999)).

To prevent inadvertent recruitment of those pediatric patients who were seeking a pediatric GI consultation, RAP-Peds criteria required they had no more than two visits to the pediatrician for abdominal pain within the past year and none within the past three months. We reasoned that patients with more than two pediatric visits for abdominal pain with no organic findings within a short period of time might be actively seeking a tertiary care referral or would be sent to the gastroenterologist by the pediatrician. Disqualification on this criterion (> 2 pediatric visits for abdominal pain) was rare, with only 2.8 % (17/616) of the potential RAP-Peds charts being disqualified for this reason.

Control patients were recruited through the same pediatric offices. These children were active patients in that they had had a health care visit within the last year. Their charts reflected no complaints of chronic abdominal pain.

In addition to the previous disqualification criteria, RAP children and Control children also were disqualified if they had any other significant health condition requiring daily medication (e.g., diabetes) and/or specialty care follow-up (e.g., congenital heart disease). Children with mild chronic illness such as asthma were not excluded. Girls were required to be premenarchal. Criteria for subjects in the three groups are summarized in Table 1.

Parents of patients who met eligibility criteria after chart review were sent a letter by their physician (pediatrician or pediatric gastroenterologist) inviting them to participate in the study. Parents then were contacted by phone to describe the study further. Those who expressed interest were screened further for eligibility, specifically to establish that the child's pain complaints were current and of sufficient frequency, duration, and intensity to meet enrollment criteria. Subjects meeting eligibility criteria were scheduled for a home visit.

Testing Procedures—The measures were administered in the home by two research assistants trained in standard administration procedures. The mother and child completed the instruments independently. Mothers read the questionnaires themselves but a research assistant

was available for clarification of instructions. Due to differential reading levels a second research assistant read the questionnaires to all children and allowed them to answer independently on the response sheets.

Measures

Functional Disability Inventory—The Functional Disability Inventory (FDI) assesses the difficulty completing tasks due to impairments in physical health (Walker & Greene, 1991). Both the child (FDI) and the mother (P-FDI) rate on a 5- point scale (0- "no trouble" to 4- "impossible") the child's difficulty completing 15 activities (e.g. walking up stairs, doing homework, running the length of a football field) during previous two weeks. Total scores are calculated.

Behavior Assessment System for Children—The Behavior Assessment System for Children (BASC) is an integrated assessment to evaluate a wide range of behaviors and personality dimensions in children (Reynolds & Kamphaus, 1998). The BASC has both a parent-report and a child self-report form. Each form has a number of dimensions and scales that are normed with a large reference sample. For the analyses we used the *t*-scores on the Anxiety Scale and Depression Scale for both the parent and child reported forms.

Children's Somatization Inventory—The Children's Somatization Inventory (CSI; Garber, Walker, & Zeman , 1991) measures the frequency and severity of somatic symptoms taken from DSM-III-R criteria for somatization disorder and the somatization factor for the Hopkins Symptoms Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). Examples of items include "headaches," "feeling low in energy", and "muscle aches." Both the child (CSI) and mother (P-CSI) rate on a 5-point scale (0- "not at all" to 4- "a whole lot") the extent to which 35 symptoms have "bothered" the child during the last 2 weeks. Total scores are calculated.

Symptom Checklist 90-R (SCL-90-R)—The Symptom Checklist 90-R (SCL-90-R; Derogatis, 1994) was used to assess the mother's psychological adjustment. The SCL-90-R is a self-report measure of psychological symptoms with multiple subscales, including Anxiety and Somatization, which were used in this study. *T*-scores are calculated.

Data Analyses

Statistical analyses were conducted using SPSS version 13.0. Chi-square tests and *t*-tests compared groups on demographic characteristics. Because the measures of psychological functioning are correlated, two multivariate analyses of variance (MANOVAs) using group as a between subjects factor were performed with child report of child's psychological functioning in one analysis and mother report of both her own psychological symptoms and her perception of her child's psychological functioning in the other. Wilks' lambda was examined to determine if the dependent variables in combination were able to significantly discriminate the three groups. Multivariate pairwise contrasts were then examined to determine which groups were significantly differentiated from each other. Finally, examination of the standardized discriminant function coefficients and structure coefficients identified which of the dependent variables were predominantly accounting for group differences. Because previous research has largely examined these constructs independently, univariate ANOVAs using Tukey post-hoc tests also were conducted to facilitate comparability of results and to clarify group differences on specific constructs. Effect sizes were examined in addition to evaluating the statistical significance of analyses; benchmarks for η^2 indicate that a value of .01 reflects a small effect, .06 a medium effect, and .14 a large effect.

RESULTS

Several checks were made to ensure that pediatric practice patterns did not account for the differences between RAP-GI and RAP-Peds subjects. As stated earlier, insurance plans accepted in the pediatricians' offices did not restrict access to pediatric gastroenterology. A check was made of the pediatric chart reviews to assess whether there was evidence of disproportionate referral or nonreferral of children with RAP to a pediatric gastroenterologist. The 47 children in the RAP-GI group had been referred by 43 pediatricians. No pediatrician referred more than two subjects in the RAP-GI group. Further, all pediatric practices (and all but four physicians) represented in the RAP-Peds group were found to have referred children with RAP to a pediatric gastroenterologist.

Demographics and Clinical Characteristics

The participants were 123 children and 120 of their parents; five fathers were excluded from analyses and two children whose data were outside the valid range acceptable for interpretation were omitted from analyses. A complete description of the sample is included in Table 2. The mean age of the children was 8.6 ± 1.1 years with 66.7% girls. There were no significant differences across groups with respect to gender, age, ethnicity, or insurance status. Groups did differ on mother's level of education, χ^2 (6, N = 118) = 14.37, $p < .05$. Examining the standardized residuals indicated that the RAP-GI group had a lower than expected number of participants with a graduate or professional degree.

Examination of Data Fidelity

An examination of the data indicated that 7 parents and 4 children had omitted a single item on either the CSI or FDI. The mean of the participant's other items on that measure was imputed for each missing value so that a scale score could be calculated. One parent had a missing value for the BASC anxiety scale and one for the two SCL-90 scales; group means were imputed for these two values.

The validity scales on the BASC were examined for both the child and parent report. A significant group difference on the BASC parent report F scale (F = (2, 117) = 9.55, $p < 0.01$) indicated a tendency for mothers in the RAP-GI group to respond in the extreme. Post-hoc tests found that the RAP-GI group was significantly higher than RAP-Peds and Controls while there were no differences between RAP-Peds and the Control group. There were no other significant differences between groups on other measures of validity in either the mother or child report.

Child's Report

A MANOVA with the dependent variables of child report of their anxiety, depression, functional disability, and somatic symptoms found no significant multivariate effect for group (F(8, 234)=0.70, p=0.69, λ=0.95) indicating that the maximally weighted combination of those variables did not discriminate between the three groups. Group means on each measure are provided in Table 3.

Mother's Report

A significant multivariate effect of child disability, child somatic symptoms, child anxiety, child depression, mother's anxiety, and mother's somatization was obtained for group (F(12, 224)=5.78, p<0.001, λ=0.58, ηp^2=.24) with all groups being significantly discriminated from each other. Child somatization, parent somatization, and child functional disability were the constructs predominantly differentiating the groups.

Univariate ANOVAs demonstrated significant differences among the three groups on the measures of child depression (F(2,117)=5.02, p<0.01, η^2=.08), child functional disability (F

(2,117)=15.03, $p<0.001$, $\eta^2=.20$), child somatic symptoms ($F(2,117)=21.03$, $p<0.001$, $\eta^2=.26$), and parent somatization ($F(2, 117)=11.45$, $p < 0.001$, $\eta^2=.16$). No significant univariate group differences existed for child anxiety or parent anxiety. Pair wise comparisons are given in Table 3. The RAP-GI group was significantly higher on parent-reported child functional disability than the RAP-Peds and Control groups, which did not differ significantly from each other. Controls reported significantly lower ratings of child somatic symptoms and parent somatization than both RAP groups with no differences between the two RAP groups. RAP-Peds reported significantly higher ratings of child depression than the Controls.

Post hoc analysis: Mother 's Report Compared with Child Report of Somatic Symptoms and Disability

Although group differences did not exist for child-report of somatic symptoms or functional disability, observation of the data suggested that children generally reported more somatic symptoms and functional disability than parents reported for them on the same measures (see Table 3). Children in both RAP groups as well as the Control children reported that in the "past two weeks" they experienced many somatic symptoms and had been disabled in several ways by physical symptoms. *T*-tests were conducted to evaluate the difference between child and parent-report for somatic symptoms and functional disability and to compare effect size across groups. For somatic symptoms, child-report was significantly higher than parent-report for all three groups, and the effect size was notably larger for the Control group ($d = 1.07$) than for the RAP-Peds ($d = .81$) or the RAP-GI ($d = .76$) groups. For functional disability, children reported significantly higher disability than their parents reported for them in the RAP-Peds group ($d = .78$) and the Control group ($d = 1.22$), however child- and parent-report did not significantly differ in the RAP-GI group ($d = .24$).

DISCUSSION

This study presents a refinement in the study of characteristics of children with RAP with no identifiable organic etiology and their caregivers. By studying children with RAP followed by their pediatricians and comparing them to those seen by a pediatric gastroenterologist, as well as Control children without abdominal pain, we have extended the findings of previous studies. With the long-term goal of preventing escalation to tertiary care, the objective of this study was to identify those characteristics that differentiate children/families who see a pediatric gastroenterologist from those who only consult a pediatrician. Our results indicate that the three groups were differentiated primarily on the basis of the mother's perception of the child's disability and general somatic symptoms as well as the mother's somatization tendencies. The children's self-reports did not differentiate groups. Parent perceived functional disability was the only variable which univariately differentiated primary and specialty care RAP groups, and the effect size was quite large.

Overall differences between the RAP groups and Controls were found on the variables that have been implicated in other RAP studies: parent and child somatization (Dorn et al., 2003; Ernst et al., 1984; Walker et al., 1991;Walker, Garber, VanSlyke, & Greene, 1995), child internalizing symptoms (Campo, 2004; Garber, Zeman & Walker, 1990; Robins, Schoff, Glutting, & Abelkop, 2003; Scharff, 1997; Walker et al., 1993; Walker & Greene, 1989; Wasserman, Whittington, & Rivara , 1988;) and functional disability (Campo et al., 2004; Walker et al., 1995). In this study, for both maternal report of the child's somatic symptoms and the maternal psychological characteristic of somatization, the RAP groups were elevated above controls but did not differ from one another. This tendency for mothers to over endorse diverse vague somatic symptoms in both themselves and their children represented is a strong effect differentiating the RAP groups from Controls.

While we anticipated that RAP-GI children would have more internalizing symptoms, in fact the mothers of RAP-Peds children reported more depressive (but not anxiety) symptoms in their children as compared to Controls. RAP-GI children did not differ from Controls on this dimension. Depression scores were in the normal range for all three groups and the effect size for the group difference was moderate. However, the results do suggest a tendency for the RAPPeds mothers to describe their children a little more globally--in psychological as well as somatic terms. This tendency may have implications for escalation of care. In a study with hospitalized children with RAP, Crushnell et al., (2003) found that parents who accepted some level of psychological cause for RAP, in contrast to those who rejected psychological cause, had children who were more likely to be pain free after hospitalization for RAP. Thus, a more global appreciation of RAP may obviate the need for more intense medical assessment or intervention.

It is not clear why we did not find elevated child reports of child internalizing symptoms as has been found in other studies of RAP (Campo et al., 2004; Garber et al., 1990; Walker et al., 1993; Walker et al., 1995; Walker & Greene, 1989). The children in our study represent the young end of the RAP age continuum (7-10 years) in contrast to the wider ages and developmental stages enrolled in most other studies (6-18 years of age). The failure to report psychological distress by the children in our study may reflect the manifestation of abdominal pain in younger children or may reflect the early development of a chronic syndrome. Specifically, younger children may experience just abdominal pain. Over time children with ongoing RAP may endorse psychological concerns that are secondary to their abdominal pain and treatment, independent of their abdominal pain, and/or shaped by parental focus and concern. Further studies will be needed to explore these issues.

Child-reported endorsement of somatic symptoms and functional disability were generally higher than the parents' reports of the same symptoms. While parents overall reported fewer child symptoms and less disability than did the children themselves, examination of parent-child differences by group suggested another potentially important difference between parents of children with recurrent abdominal pain, especially those who seek specialty care. Control parents were most different from their children (generally reporting less symptoms/disability), whereas RAP-GI mothers did not differ from their children on report of child disability. While further study of this preliminary finding is necessary, this result may suggest a less refined ability of RAP parents, especially RAP-GI parents, to reflect upon the significance (or lack thereof) of physical symptoms and their consequences.

In order to make valid comparisons, we were careful to differentiate those families whose children had been seen by their pediatrician and were not seeking further consultation about the abdominal pain from families whose children had been seen by the pediatrician and were then seen by a pediatric gastroenterologist. Identifying how families in the RAP-GI group decided to seek a tertiary care consult is not known and would prove very difficult to assess accurately. Numerous permutations of parent, child, and pediatrician actions coalesce to determine this outcome (e.g., cautious pediatrician recommends referral, pediatrician frustrated with family suggests referral, distressed parent requests/demands referral or initiates tertiary care visit, less concerned parent rejects referral, etc.). However, we can eliminate some factors. None of the children in RAP-GI had an "alarm" sign that would suggest organic illness (American Academy of Pediatrics, 2005) and the need for further workup. We also know that access to pediatric gastroenterology was available to all children in the RAP-Peds group regardless of geography or insurance. Indeed, all of the pediatric practices had referred some RAP children to pediatric gastroenterologists. The fact that the 47 children in the RAP-GI grouped were referred by 43 pediatricians further supports the idea that there was no obvious bias in referral pattern.

In summary, the picture of the RAP group as a whole is that of children whose mothers are concerned with their own physical complaints and who perceive their children to be suffering from more physical symptoms than the average child. Escalation into tertiary care is likely when the mother is concerned about the child's disability despite (we speculate) the pediatrician's likely assurance that the condition is not serious. While parents' perception that their children are more impaired is an obvious reason to escalate care, increased disability is not a good prognosticator of long term adaptation. Research on children with chronic medical conditions suggests that children with less "uptime" and higher reported disability have worse adaptational outcomes (Gil, Williams, Thompson, & Kinney , 1991; Rudolph, Dennig, & Weisz, 1995).

IMPLICATIONS

These results suggest that healthcare providers need to be aware of and address parental perceptions of disability and approaches to management of children with RAP. Specifically, staying out of school or other activities because of abdominal pain is not only medically unnecessary, it is most likely counter productive through decreasing distraction from the pain, increasing stress by missing school, as well as potentially rewarding the sick role and focusing on the pain. Encouraging parents to help children cope by maintaining functionality is consistent with multiple studies of coping with illness that have suggested that increasing active and/or decreasing passive approaches to pain results in less pain and disability (Geisser, Robinson, & Riley, 1999; Gil et al., 1991; Smith, Lumley, & Longo , 2002; Walker, Smith, Garber, & Claar, 2005), and, that parents are critical in prompting and supporting adaptive pain management strategies in their children (Allen & Shriver, 1998; Gil et al., 1991; Jamison & Walker, 1992; Peterson & Palermo, 2004). This approach is also consistent with the American Academy of Pediatrics recommendation on the treatment of chronic abdominal pain (American Academy of Pediatrics, 2005). We speculate that when parents are instructed and supported to return children to normal function early in the course of their children's pain, unnecessary escalation to tertiary care may be avoided.

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Abbreviations

RAP-GI	patient with recurrent abdominal pain seen by a pediatric gastroenterologist
RAP-Peds	patient with recurrent abdominal pain seen by a pediatrician
FDI	Functional Disability Inventory
BASC	Behavior Assessment System for Children
CSI	Children's Somatization Inventory
SCL-90	Symptom Checklist-90

Table 1

Inclusion/Exclusion Criteria by Group

RAP-GI	RAP-Peds	Control
At least 1 pediatric visit and 1 GI visit for recurrent abdominal pain in past year	At least 1, but not more that 2 pediatric visits in past year, but none within the past 3 months	No visits for abdominal pain with acute organic findings; no chronic GI illness
Pain current	Pain current	
Paining occurring at least one time per month for 3 consecutive months	Paining occurring at least one time per month for 3 consecutive months	
Pain resulting in interference with activity or moderate to severe (3/10) or prompting medication use	Pain resulting in interference with activity or moderate to severe (3/10) or prompting medication use	
No identifiable organic illness to account for pain	No identifiable organic illness to account for pain	
No significant chronic illness or condition	No significant chronic illness or condition	No significant chronic illness or condition
Parent and child fluent in English	Parent and child fluent in English	Parent and child fluent in English
No child learning difficulty precluding responding to read questionnaires	No child learning difficulty precluding responding to read questionnaires	No child learning difficulty precluding responding to read questionnaires

Table 2

Description of Study Sample

	RAP-GI (n=47)	RAP-Peds (n=35)	Control (n=38)
Female	35	26	21
Race/Ethnicity			
White, non-Hispanic	30	20	24
Black, non-Hispanic	4	5	2
Hispanic	9	4	5
Asian	0	1	1
Information not available	4	5	6
Educational level of the mother			
Less than High School, High School diploma, or GED	8	4	2
Vocational school or some college	24	13	10
College Graduate or some graduate school	13	12	19
Graduate/Professional Degree	1	5	7
Other	1	0	0
Information not available	0	1	0
Insurance Status			
Medicaid/CHIPS	7	5	4
HMO/PPO	37	19	23
Other	3	2	0
Information not available	0	9	11

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Table 3

Measures by Group (Means ±SD)

	Group			F-Value	P-Value
Measure	**RAP-GI (*n*=47)**	**RAP-PEDS (*n*=35)**	**CONTROL (*n*=38)**		
Child report					
Child Somatization (CSI)	24.3 ± 18.6	27.5 ± 26.4	20.3 ± 22.8		
Child Functional Disability (FDI)	8.0 ± 7.1	9.4 ± 11.3	8.5 ± 9.5		
Child Anxiety (BASC)	49.3 ± 10.0	48.9 ± 9.8	46.7 ± 9.9		
Child Depression (BASC)	47.1 ± 7.9	46.5 ± 7.7	46.5 ± 7.1		
Parent report					
Child Somatization (CSI)	13.2 ± 8.4^{a}	11.34 ±9.8^{a}	2.8 ± 3.2^{b}	21.03	<.001
Child Functional Disability (CSI)	6.3 ± 7.2^{a}	2.7 ± 4.3^{b}	0.3 ±0.7^{b}	15.03	<.001
Child Anxiety (BASC)	51.4 ± 12.0	52.7 ± 10.1	47.0 ±9.3	3.01	.05
Child Depression (CDI)	48.2 ± 12.3^{a,b}	50.1 ± 10.5^{a}	42.9 ±6.4^{b}	5.02	.008
Parent Anxiety (SCL-90)	48.4 ± 11.1	47.9 ± 8.6	44.3 ± 7.8	2.26	0.11
Parent Somatization (SCL-90)	55.4 ± 9.8^{a}	54.8 ± 8.0^{a}	46.6 ± 9.3^{b}	11.45	<.001

NOTE:

a, b Pair= Pair wise comparison is significant across different letters