PARENT-ONLY INTERVENTION REDUCES SYMPTOMS AND DISABILITY IN ABDOMINAL PAIN PATIENTS

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First Randomized Controlled Trial to experimentally test efficacy of intervention for children with *functional abdominal pain*

Two conditions:

1. SLCBT: Social Learning and Cognitive Behavior Therapy (working with children and parents)
   - Goals: alter parental responses to pain, increase adaptive cognitions and coping strategies in parents and children related to symptoms
   - Content: Parental response, Relaxation, Cognitive Behavior Therapy
2. ES: Education/Support
   - Goal: Control for therapist time and attention
   - Content: GI system, food pyramid, food labeling

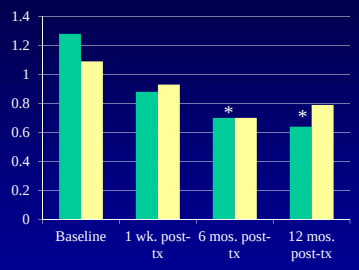
Format of Conditions in *Prior* Study

Three Sessions 1 week apart

Each session approximately 45 min-1 hr

- Most of the time parent and child together
- Some of the time with child alone ~10 mins
- Some of the time with parent alone~10 mins

Child-Reported GI Symptom Severity



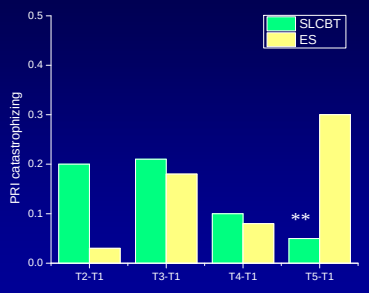
Gastrointestinal symptoms (child report) improved significantly more from baseline among children in the SLCBT group than children in the ES group.

* p<.05

Levy, R. L., et al. (2010). Cognitive-behavioral therapy for children with functional abdominal pain and their parents decreases pain and other symptoms, *American Journal of Gastroenterology*, 105, 946-56

Levy, R. L., et al. (2013). Twelve Month Follow-up of Cognitive Behavioral Therapy for Children with Functional Abdominal Pain. JAMA Pediatrics.

Pain Response Inventory (PRI)- catastrophizing subscale Change from baseline: Child Report



** P = .009

Catastrophizing (i.e., believing pain will never stop, thinking something might be very wrong) was reduced significantly more from baseline among children in the SLCBT group than in the ES group at 12 months post-treatment.

A major Goal of Current Study:
Test a Similar Intervention conducted through remote delivery/the telephone

Rationale for doing remote:

✓more efficient and
✓potentially reach more participants

Current Randomized Controlled Trial to experimentally test efficacy of intervention for children with functional abdominal pain

Three conditions:

1) Remote Social Learning and Cognitive Behavior Therapy (SLCBT_R/working with parents *only*).
Goals: alter parental responses regarding child pain behaviors to decrease catastrophizing and solicitousness, and increase adaptive cognitions, coping and encouragement of well behaviors. Also alter modeling of responding to pain behaviors

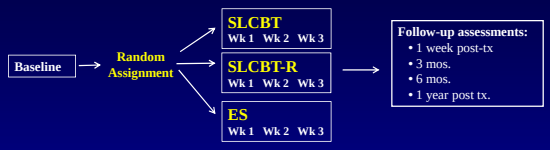
2) Remote Education/Support (ES-R/working with parents *only)*
Goal: Control for therapist time and attention with content on the GI system, food pyramid, food safety and labeling)

3) In-person SLCBT (SLCBT/working with parents *only)*
Goals: Same as SLCBT-R above, but delivered in person

Remote delivery

Some challenges: Multitasking, distraction

Study Design



Process Variables:

- Adult Responses to Child's Symptoms (ARCS) (Parent)
- Pain Beliefs Questionnaire (PBQ) (Parent)
- Pain Response Inventory (PRI) (Child)
- Pain Catastrophizing Scale (PCS) (Child and Parent)

Outcomes:

- GI Symptom Scale (Parent and Child)
- Faces Pain Scale (Child and Parent)
- Abdominal Pain Index (API) (Parent)
- Pediatric Quality of Life Inventory (PedsQL) (Parent and Child)
- Functional Disability Inventory (FDI) (Parent)
- School Attendance (Parent)
- Medical Visits (Parent)

Preliminary Results: Participant numbers

Treatment group		Follow-up*		
		1 wk Post tx	3 mos Post tx	6 mos Post tx
SLCBT	105	84 (80%)	81	76
SLCBT-R	100	75 (75%)	68	66
ES-R	107	83 (78%)	75	76
All	312	242 (78%)	224 (71%)	218 (70%)

***Note that follow-up is not completed and was similar among the three groups (p > 0.6)**

Preliminary Results: Baseline Characteristics

Demographics	Parents	Child
	95% female	46% female
Age		
M(SD)	40.3(7.2)	9.5(1.6)
Range	27-69	7-12
Ethnicity		
non-Hispanic	92%	91%
Race		
Caucasian	85%	79%
Marital Status	79% married	
Education		
< High school	4%	
High school graduate	5%	
Some college	43%	
College graduate	25%	
Post-college education	23%	
Number of days parent was disabled because of bowel symptoms in the past 3 months	Mean (SD) Range SLCBT 0.40 (1.31) 0-10 SLCBT-R 1.10 (4.88) 0-46 ES 0.64 (2.44) 0-15	
Child missed school days in past 3 months due to abdominal pain		Mean (SD) Range SLCBT 7.0 (14.4) 0-90 SLCBT-R 6.0 (12.2) 0-90 ES 7.4 (14.3) 0-90

There were no significant differences among groups on baseline characteristics.

Process Measures

Summary of Preliminary Results: Process Measures

- There were no significant group differences for primary child-report process measures.
- For every process measure except ARCS-Minimize, parent-report scores at follow-up for the SLCBT and SLCBT-R groups were significantly better than scores for the ES group).
- For nearly every process measure, we observed significant improvement in scores from baseline for all groups, particularly for parent-report.

Outcome Measures

Summary of Preliminary Results: Outcome Measures

- Pain:
  - Baseline pain levels were very low for all groups
  - For most follow-up time periods, pain reports by parents and children were not reduced significantly more in the intervention conditions than the comparison condition and all groups had significant decreases in pain reports post-treatment
- Other Outcomes:
  - Parent reported outcomes of functional disability and quality of life were significantly improved more in one or both of the intervention conditions than the comparison conditions
  - Missed school days and health care utilization were significantly improved more in one or both of the intervention conditions than the comparison conditions

Thank you for your attention!