Psychosocial Aspects of Chronic GI Illness

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No conflicts of interest or disclosures

Learning Objectives
1. Describe the bidirectional nature of physical and psychological functioning in pediatric patients with chronic GI disorders.
2. List common areas of psychosocial concern across pediatric GI disorders.
3. Explain the value of incorporating psychosocial assessment and treatment into care for patients with chronic GI disorders.
Biopsychosocial Model

- Biological:
  - GI disease
  - disability
  - temperament
  - emotion regulation
  - IQ

- Psychological:
  - coping
  - social skills

- Social:
  - family engagement
  - support
  - school
  - insurance coverage
  - stress response

Health Status

Integrated behavioral health

- Medicine
- Psychology

Pediatric GI Healthcare

Psychosocial Issues to acknowledge

“Insight there is the unseen, and as we even acknowledge me.”

Psychosocial Issues

- Chronic GI Illnesses
  - Constipation & Encopresis
  - Abdominal Pain
  - Inflammatory bowel disease
- Mental Health Screening

<table>
<thead>
<tr>
<th>Domain</th>
<th>GI group (n = 100)</th>
<th>HC matched group (n = 100)</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internalizing problems- BASC-P</td>
<td>55.48 (11.51)</td>
<td>46.29 (9.33)</td>
<td>1.86*</td>
</tr>
<tr>
<td>Adaptive Skills- BASC-P</td>
<td>48.75 (11.12)</td>
<td>52.32 (9.68)</td>
<td>2.19**</td>
</tr>
<tr>
<td>Somatization- BASC-P</td>
<td>60.96 (11.35)</td>
<td>47.49 (10.89)</td>
<td>3.81**</td>
</tr>
<tr>
<td>Social Skills- BASC-P</td>
<td>48.97 (10.30)</td>
<td>52.09 (9.87)</td>
<td>2.01*</td>
</tr>
<tr>
<td>Parent Depression- SCL-90-R</td>
<td>52.35 (10.29)</td>
<td>51.08 (8.65)</td>
<td>1.63*</td>
</tr>
<tr>
<td>Parent Phobic Anxiety- SCL-90-R</td>
<td>47.78 (7.06)</td>
<td>46.28 (5.25)</td>
<td>1.99**</td>
</tr>
<tr>
<td>Symptoms- SCL-90-R</td>
<td>51.18 (10.39)</td>
<td>49.30 (8.71)</td>
<td>1.29*</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01

Constipation & Encopresis

- Behavioral Treatment
  - 83% success at 3.5-5 years vs. 36-58% with medical management alone (McGrath, Mellon, & Murphy, 2000)
- Retentive
  - Anxiety specific to toileting
- Nonretentive
  - ADHD
  - Oppositionality
- Psychosocial Factors Contributing to Treatment Success

Abdominal Pain

- Impact on functioning
- What factors reinforce pain behaviors?
- What factors could we rely on to reinforce healthy behaviors?
- Functional Pain
  - Attentional bias towards pain (Compas & Boyer, 2001; Beck et al., 2011)
  - Coping
    - Self-isolation, behavioral disengagement, catastrophizing (van Tilburg et al., 2015)
  - Daily stress somatic complaints (AAP, 2005)

Abdominal Pain

- Anxiety Lifetime
  - Shelby et al., 2013
- Depression Lifetime
  - Campo et al., 2004
Inflammatory bowel disease

• Emotional functioning
  – Compared to healthy children:
    • More symptoms of anxiety/depression (internalizing symptoms)
      – Separately, symptom domains not higher
    – Higher risk for diagnosis of depression
      – Rates up to 25%
  – Adults
    • Higher risk for anxiety disorders (OR = 2.18)


Inflammatory bowel disease

• Psychosocial functioning and adherence
  – Symptoms of depression, anxiety, and behavioral/emotional problems associated with worse adherence
  – High depression/anxiety – barriers predict much worse adherence


Psychosocial functioning and IBD outcomes

• How do psychosocial factors relate to IBD outcomes?
  – Disease activity ratings
  – Relapse

(Biological

Psychological

Social)
Psychosocial factors and IBD outcomes (adults)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Psychosocial predictors</th>
<th>Disease predictors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernstein et al. 2010</td>
<td>Relapse</td>
<td>Major life stress, general stress, depression, social support</td>
</tr>
<tr>
<td>Bitton et al. 2008</td>
<td>Time to relapse</td>
<td>General stress, coping, overall psychological distress, depression, anxiety</td>
</tr>
<tr>
<td>Langhorst et al. 2013</td>
<td>Relapse</td>
<td>General stress, depression</td>
</tr>
<tr>
<td>Mardini et al. 2004</td>
<td>Disease activity</td>
<td>Major life stress, depression, anxiety</td>
</tr>
<tr>
<td>Mittermaier et al. 2004</td>
<td>Relapse frequency</td>
<td>General stress, depression, anxiety, CRP, ESR, CDAI/CAI, disease duration</td>
</tr>
<tr>
<td>Vilad et al. 2006</td>
<td>Relapse</td>
<td>Major life stress</td>
</tr>
<tr>
<td>Targownik et al. 2015</td>
<td>Disease activity</td>
<td>Perceived stress, FCAL, UC only</td>
</tr>
</tbody>
</table>

Mackner, L. Psychosocial issues and health in pediatric IBD. Presented at Spring Improve Care Now Community Conference, 2015.

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Psychosocial factors in pediatric outcomes

• Prospective study: QOL and healthcare utilization in the next 12 months

<table>
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<th>Outcomes</th>
<th>Psychosocial predictors</th>
<th>Disease predictors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryan et al. 2013</td>
<td>Hospitalizations, ED visits, psych visits, phone contacts, GI clinic visits, pain referral</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Psychosocial factors in pediatric outcomes

• Research like the adult research doesn’t exist (yet)
• Several studies have investigated relationships between depression/anxiety and disease activity at one point in time
  • Most of these were not specifically focusing on these relationships
  • Very little research on stress
### Psychosocial factors and IBD outcomes (kids)

<table>
<thead>
<tr>
<th>Clark et al. 2014</th>
<th>Depression symptoms</th>
<th>PCDAI score, ESR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondersma et al. 1997</td>
<td>Negative mood</td>
<td>ESR, health care utilization, subjective health</td>
</tr>
<tr>
<td>Mackner et al. 2005a</td>
<td>Overall behavioral/emotional problems</td>
<td>PCDAI score, PCDAI severity category, co-morbidity, symptoms, age at diagnosis, family history, steroids, duration, diagnosis</td>
</tr>
<tr>
<td>Mackner et al. 2005b</td>
<td>Internalizing, externalizing, overall problems</td>
<td>PCDAI score</td>
</tr>
<tr>
<td>Reigada et al. 2015</td>
<td>Anxiety symptoms</td>
<td>HBI score, symptoms</td>
</tr>
<tr>
<td>Srinath et al. 2014*</td>
<td>Depression, anxiety</td>
<td>Abdominal pain</td>
</tr>
<tr>
<td>Szigethy et al. 2004</td>
<td>Depression symptoms</td>
<td>PCDAI score, PCDAI category, age at diagnosis, duration, steroids</td>
</tr>
</tbody>
</table>

### What to do?

**Mental health screening**

- **Goals**
  - Identify patients at risk for clinically elevated symptoms
  - Provide forum for discussion of psychosocial issues
  - Track families over time for changes
  - Circumvent functionally incapacitating mental illness
    - Evidence of stability with time, not improvement
  - Incorporate PROs

- **Evidence**
  - Reed-Knight et al. (2014). Stability of emotional and behavioral functioning in youth with IBD. Children’s Health Care, 43, 151–168.

### What to do?

**Mental health screening**

- **Mental health screening in pediatrics is effective**
  - Without screening, rates of detection shown to range 17-50% (Wildman et al., 1999)
  - Screening effective at increasing detection and communication

- **Evidence**
How to do it?
Mental health screening

• Screening Considerations
  – Depth and Breadth
    • Depression and Anxiety
    • Broader emotional functioning
    • Psychosocial issues for entire family system
  – Incorporation into clinical practice
    • Administration and Scoring, Frequency
    • Cost
    • Child vs. Parent-report
    • Disposition for Positive Screens

How to do it?
Mental health screening

• Screening Options
  – Children’s Depression Inventory, Beck Depression Inventory
  – BASC-2 (Behavior Assessment System for Children)
  – Pediatric Symptom Checklist (PSC-35 and PSC-17)
    • Brief, parent-completed checklist
    • Validated for use in pediatric GI
    • 3 Subscales
      – Internalizing (sad, spends time alone, afraid, trouble sleeping)
      – Externalizing (blames others, fights, irritable)
      – Attention (trouble concentrating, acts younger, school trouble)

http://www.massgeneral.org/psychiatry/services/psc_home.aspx