Siblings of Children with Inflammatory Bowel Disease

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**Background**

- The family environment of a child with inflammatory bowel disease (IBD) is impacted by the unpredictability of flare-ups, nature of symptoms, rigorous medication regimen, and untoward medication side effects
- One in ten children has a brother or sister with a chronic illness
- “Healthy” siblings are two to three times more likely than peers to experience psychological adjustment problems
- There are only four studies, to date, which focused on siblings (sibs) of children with IBD. Only one had a control group of healthy siblings. None of the studies examined sibs’ physical and psychological symptoms in relation to knowledge of IBD or severity of IBD

**Aims**

- Assess and compare psychological and physical symptoms among IBD sibs and sibs of healthy controls
- Examine the association among sibs’ symptoms, knowledge of IBD and severity of IBD
- Examine the associations between sibs’ physical symptoms, school absences and health care utilization

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**Participants**

Healthy sibs and parents of children with IBD (n=10) and healthy controls (n=10) were matched for sib age, gender and relative birth order

<table>
<thead>
<tr>
<th>Participants (n)</th>
<th>Mean Age</th>
<th>Gender</th>
<th>IBD Type</th>
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</thead>
<tbody>
<tr>
<td>IBD Group</td>
<td>10</td>
<td>12.1 yrs</td>
<td>Male 70%</td>
</tr>
<tr>
<td>Control Group</td>
<td>10</td>
<td>11.3 yrs</td>
<td>Male 70%</td>
</tr>
</tbody>
</table>

**Measures**

- **Independent Measures**
  1. Family Demographics
  2. Severity of Illness
    - IBD Medical History
    - Last Physical Exam
  3. Knowledge of IBD
    - IBD Knowledge Questionnaire

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**Study Design**

**Dependent Measures**

1. Sibling Physical Symptoms
   - Children’s Somatization Inventory
2. Sibling Psychological Symptoms
   - Behavioral Assessment System for Children
3. Sibling School Absences & Health Care Utilization
   - Sibling Physical Health Questionnaire

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**Results**

- IBD sibs experience more psychological and physical symptoms than peers
- IBD sibs’ physical symptoms correlate with IBD knowledge. With more knowledge sibs show fewer psychological symptoms and more physical symptoms
- Sib’s knowledge is greater when IBD is more severe, sib is older and parents have more knowledge of IBD
- Sibs with increased physical symptoms miss more school and visit health care providers more often

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**Conclusions**

- This study indicates that sibs of children with IBD are at risk for physical and psychological symptoms
- Sibs’ symptoms are associated with increased knowledge, disease severity and health care utilization
- Future studies are needed that involve a larger and more diverse participant sample and examine the effects of birth order and gender on sibs’ symptoms