

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 sibs. 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

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

	Participants (n)	Mean Age	Gender		IBD Type	
IBD Group	10	12.1 yrs.	Male	70%	UC	60%
			Female	30%	CD	40%
Control Group	10	11.3 yrs.	Male	60%	N/A	
			Female	40%		

Study Design

Measures

Independent Measures

- Family Demographics
- Severity of Illness
 - IBD Medical History
 - Last Physical Exam
- Knowledge of IBD
 - IBD Knowledge Questionnaire

Dependent Measures

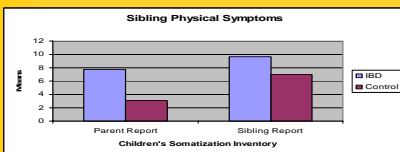
- Sibling Physical Symptoms
 - Children’s Somatization Inventory
- Sibling Psychological Symptoms
 - Behavioral Assessment System for Children
- Sibling School Absences & Health Care Utilization
 - Sibling Physical Health Questionnaire

Results

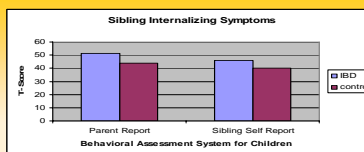
- IBD sibs experience more psychological and physical symptoms than peers
- IBD sibs’ physical symptoms correlate with IBD knowledge. With more knowledge sibs show fewer psychological symptoms and more physical symptoms
- Sib’s knowledge is greater when IBD is more severe, sib is older and parents have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

Conclusions

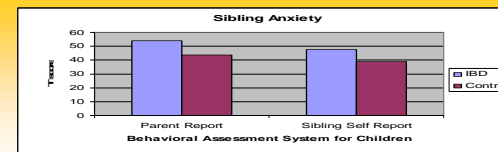
- This study indicates that sibs of children with IBD are at risk for physical and psychological symptoms
- Sibs’ symptoms are associated with increased knowledge, disease severity and health care utilization
- Future studies are needed that involve a larger and more diverse participant sample and examine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



IBD parents and sibs report more sib physical symptoms than control parents (p<.05) and sibs (n.s.)



IBD parents & sibs report more sib internalizing symptoms than control parents (p<.05) and sibs (p<.05)



IBD parents & sibs report more sib anxiety than control parents (p<.05) and sibs (p<.05)

	Parent IBD Knowledge	IBD Severity	IBD Sib Age
Sib IBD Knowledge	.57	.54	.42

Correlations among sib knowledge, parent knowledge, IBD severity, & sib age

	School Absences	Health Care Utilization
Sib Physical Symptoms	.62	.32

Correlates of physical symptoms

	Sibling Knowledge	IBD Severity	Sib Anxiety	Sib Internalizing	Sib Physical Symptoms
Sibling Knowledge	1.0	.54	-.47	-.57	.35
IBD Severity	.54	1.0	-.10	.13	.004

Correlations among sib knowledge, IBD severity, & sib symptoms