CHNOLA JumpStart Pain Program

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Biomedical vs the Biopsychosocial Model

BM?  BPS?
Disease
Objective anatomic abnormalities and/or pathophysiology

Illness
Suffering, decreased capacity for functioning in life’s activity
Medical Model

Disease
- pus
- blood

Not Disease
Medical Model

<table>
<thead>
<tr>
<th>Disease</th>
<th>Not Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>pus</td>
<td></td>
</tr>
<tr>
<td>blood</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good patient</th>
<th>Bad patient</th>
</tr>
</thead>
</table>

- In the Disease column, there are images showing pus and blood, suggesting inflammation or infection.
- In the Not Disease column, there is an image showing a healthy mucosal lining, suggesting no infection.

- The Good patient image shows a normal mucosal surface, indicating a healthy condition.
- The Bad patient image shows a mucosal surface with inflammation or infection, marked by pus and blood.
Clinician’s Response to Bad Patient

Irritation
Anxiety
Helplessness
Anger
Avoidance
Biopsychosocial Model

Disease

Development

Illness

Mental Disorder

Functional

Culture and Society
Functional Gastrointestinal Disorders

... Chronic or recurrent symptoms not explained by structural, biochemical or psychiatric abnormalities...
CHRONIC FUNCTIONAL ABDOMINAL PAIN DISORDERS

• Irritable bowel syndrome
• Functional dyspepsia
• Functional abdominal pain
• Functional abdominal pain syndrome
Disability associated with functional gastrointestinal disorders is proportional to co-existing psychological distress.
Psychological Issues are Common in **Disabled** Youth with FGIDs

- Anxiety
- Depression
- Sleep impairment
In preteens and teens with an FGID, disability is proportional to the patient’s perception of their own academic or social incompetence.
FGIDs: IMPACT ON QOL

- Impaired school and social life
- Poor coping
- Physical and psychological co-morbidity
FGID TREATMENT HIERARCHY

- INTERdisciplinary approach
- Psychological treatments
- Rehabilitation

- Manage stress
- Pharmacotherapy

- Diet, lifestyle
- FGID diagnosis
Pathogenesis

Physical Trauma

Autonomic arousal

Pain

Nausea

Motility

Emotional Trauma

Passive Coping

Developmental Challenge

Functional Gastro-intestinal Disorders

Febrile Illness
e.g. Gastroenteritis
For children disabled by a FGID, treatments such as CBT, hypnosis, and psychotropic drugs improve coping and resolve psychological distress and symptoms. Treatment targeting the CNS is often more successful than treatment targeting the GI tract.
Treatment

Autonomic arousal

Exercise

Tricyclics

Pain

Nausea

Motility

Regulate Sleep

Hypnosis

Relaxation

Cognitive Behavioral Therapy

Alosetron

Prucalopride

Mirtazapine

Gabapentin

Domperidone

Anticholinergics

Calcium Channel Blockers
Why JumpStart?

• Referral patterns for unexplained pain/nausea/vomiting lead to neuro-gastroenterologists like Dr Hyman

• We’ve acquired the requisite skills for a successful program after years of managing complex patients and families

• There is a need for this niche
JumpStart Pain Program Goals

• Change a family’s expectation that a doctor will do something to cure the disease to a model in which the patient gets themselves better. We transition from an acute care model to rehab model.

• Shift the treatment goal from pain reduction to improved functioning in daily activities.

• Identify factors that cause or maintain symptoms and provide targeted treatment.

• Develop, and modify, an individualized plan based on patient’s response during admission.
Admission Criteria

– Ages of 9 and 19 y
– Symptom-based diagnostic criteria for one or more functional gastrointestinal disorders
– Failed standard community care
– Family must express willingness to participate in treatment

Exclusion Criteria

– Malignant or inflammatory bowel disease
– Self injurious behavior or suicide attempts in the past three months
– Current substance abuse
– Current narcotics dependence
– Current eating disorder
JumpStart Pain Program: Personnel

- Neurogastroenterologist
- Clinical Psychologist
- Physical Therapist
- Occupational Therapist
- Child Life Specialist
- Family Therapy
- Inpatient Nursing
- GI Nurse Coordinator
JumpStart Pain Program: Outpatient Assessment

• Rigorous four hour pre-admission outpatient assessment
  – (medical, psychological, physical and occupational therapy)

• Education: Answer the 4 Questions:
  What is wrong with my child? It’s an FGID
  Is it dangerous? No
  Will it go away? Yes
  What can we do about it? We’ll show you!!!
Creating an Expectation for Success

• Signing a contract with child and family
• No testing necessary or desirable
• Absolutely no pain experiences
• No sleep interruptions; facilitating restful sleep
• Comfort a priority...they wear their own clothes
• Emphasis on improved functioning rather than reduction in pain
JumpStart Program Structure

• Staffing with team on week prior to admission
• 5 day inpatient hospitalization on our 3rd floor
• Scheduled treatments fill the day; patient participation is required
• Mid-week staffing
• Discharge meeting with family on Friday afternoon
What Does Dr Hyman Do?

• Meet with patient and family 30 min daily to answer questions (“Don’t you think she needs a scope?” “No. We know what is wrong. No testing is necessary or desirable.”)
• Assess and adjust medications to assure restful night of sleep
• Re-iteration the brains and guts are connected
• Prevent medicalization
What Does Dr Lewis Do?

• Meet with patient individually for 1 hour each day
• Cognitive behavioral therapy
• Exposure and response prevention
• Relaxation training
  – PMR, diaphragmatic breathing, imagery, hypnosis
• Coordinating care between team members
• Planning for transition home and to outpatient services
• Reinforce healthy behaviors, instill hope
Cognitive Behavioral Therapy

• Understanding and utilizing the relationships between thoughts, feelings, and behaviors to promote positive change

• Listen Listen Listen and Listen some more
  – Why did your pain start?
  – What is causing your pain?
  – What will happen if you go to school hurting?
  – Is it possible for your pain to get better?
Cognitive Restructuring

• All or nothing / black and white thinking

“ My tummy hurts so bad, I CANNOT go to school”

“If my tummy hurts at school I can practice my breathing exercises. If that doesn’t work I can take a 15 minute rest in the nurses office.”

“Even if my tummy hurts, I am excited to go to school and see my friends. I am lonely staying at home.”

“I noticed yesterday at grandma’s birthday party I felt less bothered by my tummy when I was playing with my cousins. I think the same thing could happen when I am school with my friends.”
What Does Physical Therapy Do?

• 1.5 hours of daily therapy
• Improve endurance
• Increase strength and flexibility
• Moving your body regardless of pain
• Reinforce healthy behavior, instill hope
What Does Occupational Therapy Do?

• 1.5 hours of daily therapy
• Improve functioning in activities of daily living
• Activity planning and pacing
• Sensory desensitization
• Relaxation training

• Reinforce healthy behaviors, instill hope
What Does Child Life Do?

• Meet with patient for 1 hour each day
• Provide opportunities to engage in enjoyable activities that promote independent functioning and improve self-confidence
• Problem solve and provide rewards for progress
• Plan outings to practice skills in real life
• Reinforce healthy behaviors, instill hope
What Does Family Therapist Do?

• Meet with parents, without patient, for 1 hour each day
• Reinforce tenants of treatment
• Uncover and problem solve stressors at home
• Trouble shoot financial barriers
• Plan for transition back to home and school
• Reinforce healthy behaviors, instill hope
What Does Nursing Do?

• Support the daily and nightly schedule
• Use our language
• Refrain from vitals & disturbing sleep
• Provide feedback to team on patient and family progress
• Reinforce healthy behavior, instill hope
Case Example

• 11 y AA M with 24 y mother with SS disease, low income from rural Ms
• Abdominal pain, leg pain, progressive weakness, lack of appetite, insomnia and 10 kg weight loss beginning 3 m prior to admission
• No disease found after huge medical work-up and several hospitalizations
Case 1 Treatment week

• Day 1 & 2... Participated as requested; pain persisted
• Day 3 Mother disclosed belief that son’s disability and pain was caused by voodoo curse by maternal grandmother
• Day 4 Hospital lawyers stated that we do not discriminate by religious preference; Mom was permitted counsel from a voodoo priestess.
• Day 5 Voodoo priestess works with family; child runs up 3 flights of stairs;
Case Resolution

• Mother and child felt wonderful after the JumpStart Treatment week.
• They recognized the biopsychosocial factors that lead to symptoms and symptom resolution.
• Staff felt proud about the outcome, and excited to take on the next challenging family
Next Steps

• Follow-up on long term responses for JumpStart graduates
• Opportunity for prospective clinical research trials
• JumpStart day program for local kids with chronic pain
Questions

Suggested Reading: Conquering Your Child’s Chronic Pain
Lonnie Zeltzer, MD