Spina Bifida, Anxiety, & Anxiety Disorder

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Plano Conference Center

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Let’s be clear: there is “anxiety” and there are “anxiety disorders”

Describe the relationship between anxiety and Spina Bifida

Identify core concepts of intervention

Explain how symptoms of anxiety disorders can go unrecognized in children with Spina Bifida.

Approaches to care
Vachha B, Adams RC, Rollins NK. Limbic Tract anomalies in pediatric myelomeningocele and Chiari II malformation
Vachha B, Adams RC. Myelomeningocele, Temperament Patterns, and Parental Perceptions
Vachha B, Adams RC. A temperament for learning: limbic system in myelomeningocele
Etc.
Etc.
Anxiety

- “Future-oriented emotion”
- Perceptions of lack of control &
- Unpredictability over potentially aversive events
- Rapid shift of attention to the focus of potentially “dangerous” events
**Spina Bifida and Anxiety Issues**

**Worry**
- Involves thoughts / images that cause anxiety
- Content of concern differs from time to time

**Fear**
- Part of the bodily response system
- Essential in focusing on escaping *immediate* situations / threats

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**Anxiety**

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<thead>
<tr>
<th>Disorder</th>
<th>Prevalence</th>
<th>Age</th>
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<td>Generalized anxiety</td>
<td>3-12 %</td>
<td>&gt; In adolescents</td>
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<td>4-13 %</td>
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Chorpita, 2007
**Generalized Anxiety Disorder**

A. Excessive anxiety / worry more days than not for at least 6 months about a number of events or activities

B. Sense of lack of control

C. 1 or more:
   - Restlessness {Keyed up}
   - Easily fatigued  •  Sleep Disturbance
   - Difficulty concentrating
   - Irritability
   - Muscle Tension

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### Differential Diagnoses

- Pervasive Dev Disorders (PDD)
- Oppositional Defiant Disorder
- ADHD
- “Normal” anxiety

Spina Bifida – specific.
Example: Shunt issues

### Co-Existing Conditions

- Other anxiety disorders
- Depression *
- Disruptive Behavior Disorders
- Tic Disorders

### Anxiety - - - Why Should We Talk About This?

1. Longitudinal studies: association between anxiety disorders & educational underachievement

2. Occurrence of Anxiety Disorders precede depressive disorders / substance abuse disorders

3. Anxiety disorders can be related to difficulties in social and peer relations which can contribute to feelings of loneliness, low self-esteem → depression.
Spina Bifida and Anxiety Issues

Anxiety --- “Why”

1. Genetics / Temperament
2. Attachment to Caretakers
3. Parenting Styles
4. Life Experiences

Spina Bifida

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Anxiety --- Genetics / Temperament

“behavioral inhibition” –

child’s tendency to approach unfamiliar or new situations with distress, restraint, avoidance”

Kagan 1999

* “enduring temperament trait”
“Myelomeningocele, Temperament Patterns, and Parental Perceptions”

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Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas, Texas

Temperament in children with SB

- Activity: * less
- Predictability: * cautious
- First Reaction: * gradual
- Adaptability: * gradual
- Sensory Reaction: * less
- Intensity: * often
- Mood: * rare
- Distractibility: * often
- Persistence: * p < 0.01
**Anxiety --- “Why”**

1. Genetics / Temperament
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**Anxiety --- Attachment**

Warren et. al Longitudinal Study

Follow-up at 12 months & through 17 years

High-risk attachment:

* predicted anxiety disorders in adolescence
* in scientific analysis – stronger even than maternal anxiety or infant’s temperament

It’s the dynamic interaction
Anxiety --- “What can impact (up or down)?”

1. Genetics / Temperament
2. Attachment to Caretakers

3. Parenting Styles
4. Life Experiences

Anxiety --- Parenting Styles

Parental Control
Siqueland et al

Parents of children with anxiety disorders were rated by independent observers as less granting of autonomy than parents of control children

{Study among typically developing children}
**Anxiety --- Parenting Styles**

Parental Control *Observational studies*

Parents of anxious children were

More involved in directing the child’s moment to moment activities

More “intrusive” – answering on their behalf, making decisions for them, etc

More negative – fearful of potential harm

*More likely to agree with and encourage the child’s avoidance*

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**Anxiety --- “Why”**

1. Genetics / Temperament
2. Attachment to Caretakers
3. Parenting Styles
4. **Life Experiences** {Plus: Spina Bifida-specific}
Anxiety --- Life Experiences

Anxiety can be related to exposure to negative life events

Research reviewed... supports the conclusion that

- temperament (style of response to stimuli)
- attachment issues
- parental clinical anxiety (diagnosed)
- parenting styles

all play a part in the development of anxiety in children

Bernstein & Layne, 2006; etc

Temperament profile in Osteogenesis Imperfecti

Anxiety --- What to do?

- Exposure
- Modeling
- Cognitive-Behavioral Therapy

In review of over 200 investigations, the protocols that consistently demonstrate strongest results in children/adolescents include these 3 components:

Anxiety → Exposure

Strategy:
real or imagined confrontation with a feared stimulus

Variations in Approach:
- Intensity
- Order of stimuli
- Relaxation
- Rewards

> 35 RCT’s
Exposure shown effective in reducing childhood fears/anxieties
Anxiety → Modeling

**Strategy:**
Child's observation of another person interacting successfully with a feared stimulus

**Variants:**
- Live Model
- Symbolic
- Participant
- Rewards

Modeling has been shown more effective compared to no treatment

Anxiety → Cognitive- Behavioral Therapy (CBT)

EXPOSURE is a central component in CBT
Summary

What Your Spina Bifida Team Can Do To Help

1. Help identify list of fears  {Listen}
2. Education about Anxiety
3. Cognitive processing of fears:
   - ideas & accuracy; coping; control techniques
4. Practice feared situations {real or imagined}
5. Support over time to help new skills
6. Dev Peds: Medications management if needed