CHD and Mental Health

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Kids at Heart Family Dinner

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Overview

- Part I: Assessment
  - A very brief summary of the research about psychosocial functioning (mental health) in CHD
  - Defining psychosocial functioning
  - How to monitor psychosocial functioning as a parent
- Part II: Intervention
  - Treatment for common mental health problems
    - Anxiety
    - Depression
    - ADHD
    - ASD
  - How to manage problem behavior as a parent

What is psychosocial functioning?
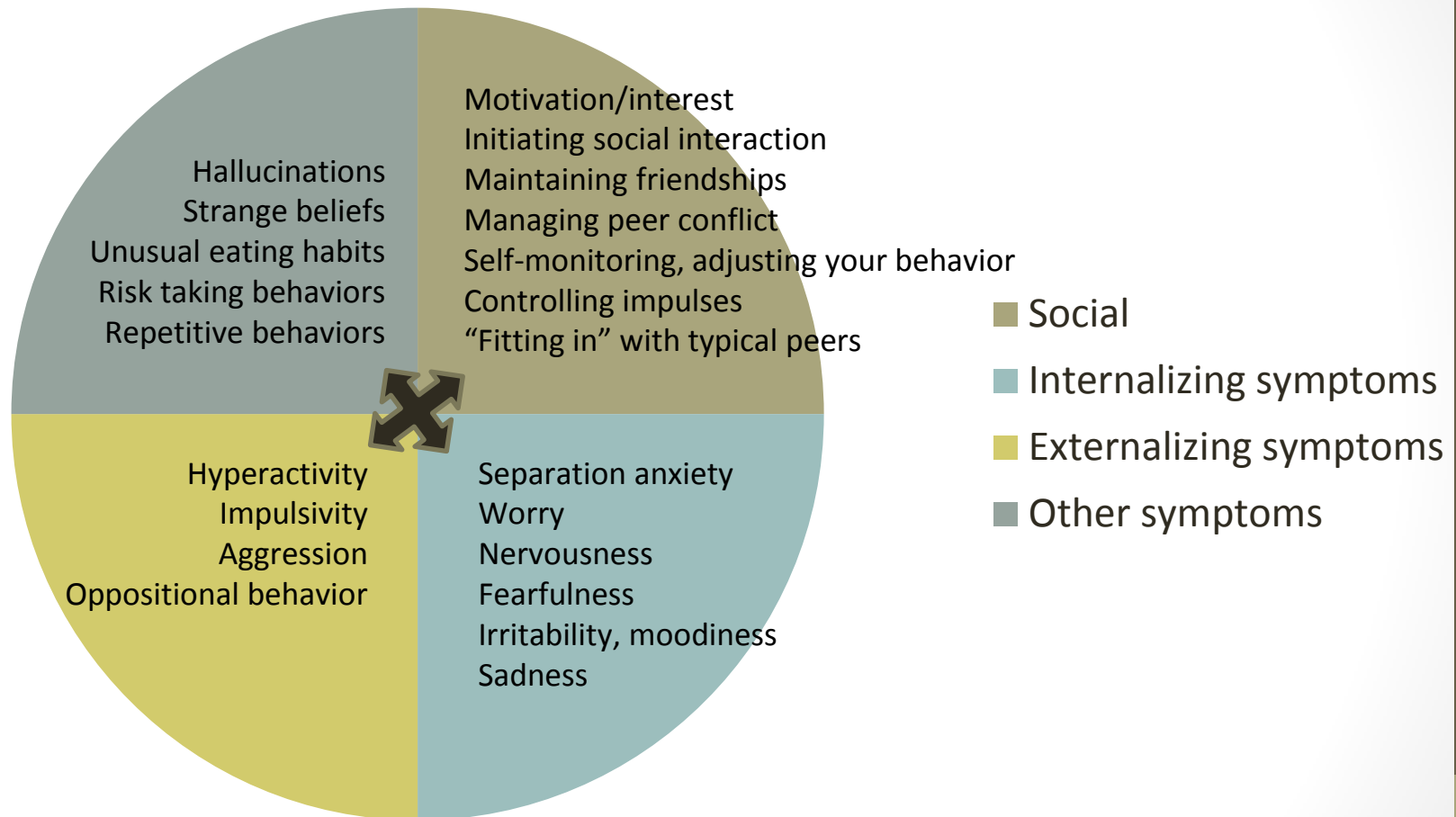
Research assessment of symptoms

- Parent rating scales
- Teacher rating scales
- Self-report rating scales
- Structured diagnostic clinical interview

(*Other clinical tools* – parent/child interview, behavioral observations)

Research with the *young* child

- Infants can have poor state regulation and more reactivity (irritability, lethargy, ability to sooth)

- Preschool parents and teachers report higher internalizing (worry, mood) and externalizing symptoms (hyperactivity, aggression) than children without CHD

- In some studies, CHD severity is related to worse symptoms

Research with the *older* child

- Parents report higher internalizing symptoms (e.g., anxiety, depression, social withdrawal, physical complaints)

- Mixed results for self-report; some lower than parents, some higher for internalizing symptoms (e.g., anxiety, depression)

- Disease severity, pacemakers/ICD may increase risk

- Emotional symptoms are affecting transition to adulthood

- Overall quality of life related to family resources, social support, depressed mood, and executive functioning.

- Adult transition is impacted

Psychological Disorders

Attention-deficit/hyperactivity disorder (ADHD/ADD)
- 19% for d-TGA
- 19% for TOF without genetic condition
- 39% for TOF with a genetic condition
- 53% for single ventricle, post Fontan

Anxiety disorder
- 12% for d-TGA
- 15% for TOF without genetic condition
- 43% for TOF with a genetic condition
- 35% for single ventricle, post Fontan

Autism Spectrum Disorder (ASD)
- Increased rates with severe heart disease, history of medical complications, and with genetic disorder
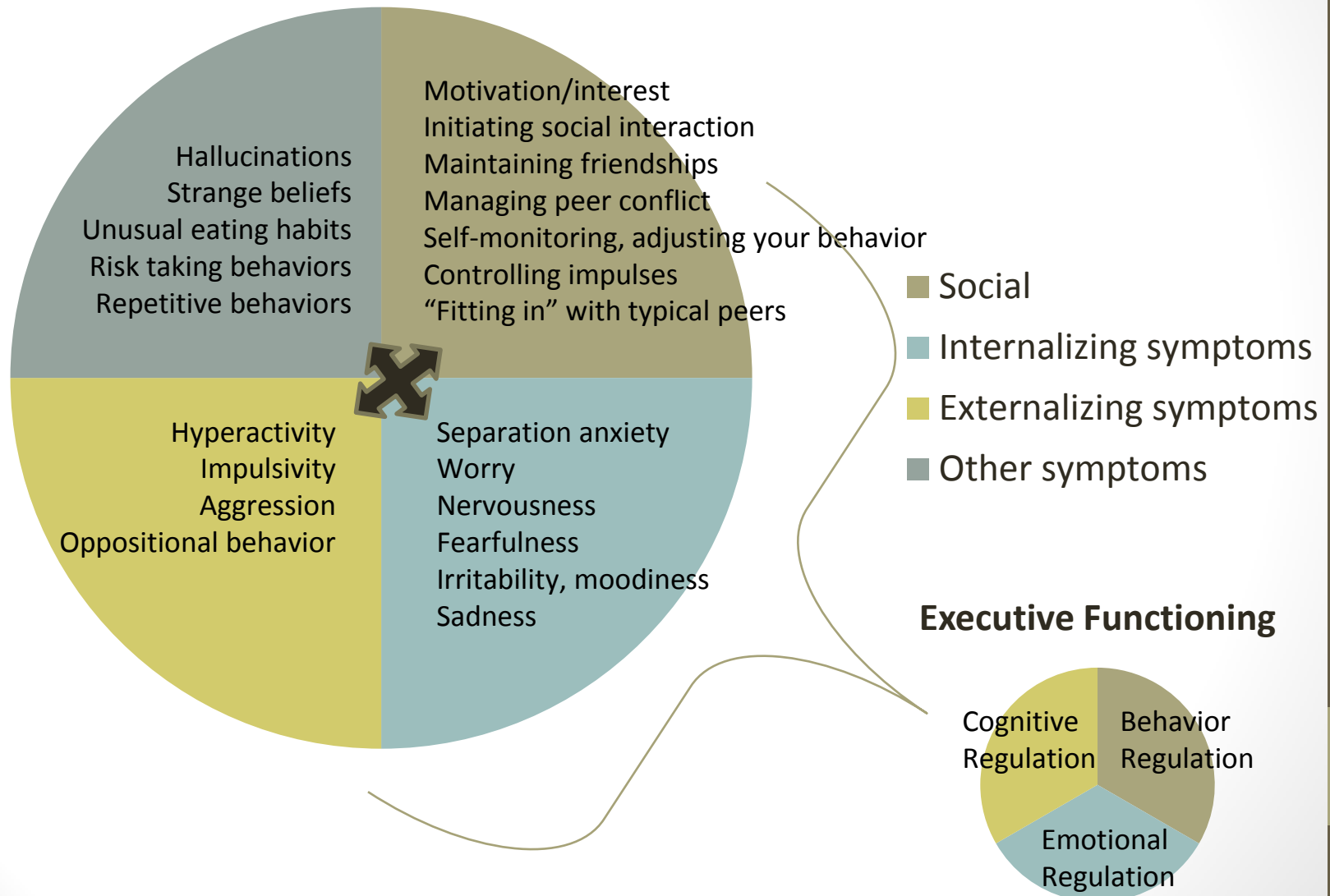
NOTE: For other psychological disorders, symptom elevations rather than diagnosis have been the focus of research (e.g., depression, post traumatic stress).

Research outcomes include a statistical summary from large samples.

Large samples can identify risk, but they DO NOT guide individualized care.

What is psychosocial functioning?

Hallucinations
Strange beliefs
Unusual eating habits
Risk taking behaviors
Repetitive behaviors

Motivation/interest
Initiating social interaction
Maintaining friendships
Managing peer conflict
Self-monitoring, adjusting your behavior
Controlling impulses
"Fitting in" with typical peers

Hyperactivity
Impulsivity
Aggression
Oppositional behavior

Separation anxiety
Worry
Nervousness
Fearfulness
Irritability, moodiness
Sadness

■ Social
■ Internalizing symptoms
■ Externalizing symptoms
■ Other symptoms

Executive Functioning

Cognitive
Regulation

Behavior
Regulation

Emotional
Regulation

Worries about what others think

Has extreme fear of medical procedures

Is very particular about things

Worries about safety of self or others

ANXIETY

Avoids new situations

Doesn't do well under pressure, including tests

Gets upset about unexpected change

Very shy or avoidant with new people

Context matters

- I don't know if this is typical for age/gender
- I thought she would grow out of it
- The teacher says he's fine at school
- I worry this will be a big problem later
- It's worse with one parent
- There were no problems until recently
- She has trouble keeping friends, and does better with younger/older kids
- He can do better if he really tries
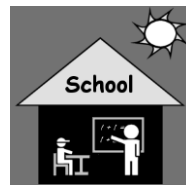
How to measure?
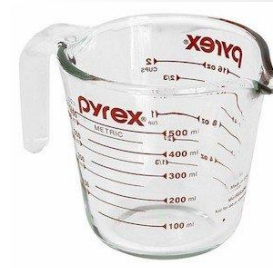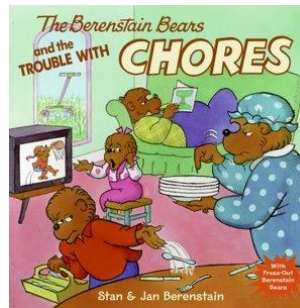
How much and what's the impact?
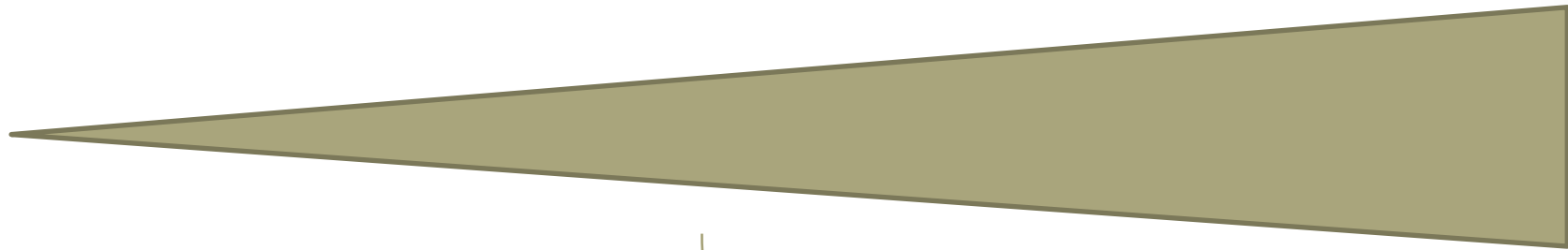
Never/rare   Moderate   Severe

Parent monitoring

- Identify the problem area
- Keep a simple log -- note the behavior, date/time, what happened before/during/after
- Talk to teachers, extended family, other adults who know your child – what do they observe? Are there differences across settings and people?
- Reach out for help from a counselor or psychologist

Treatment of Anxiety

- Exposure to feared stimulus while providing children with ways of coping
  - Graduated Exposure
    - Gradual exposure using SUDS
- Systematic Desensitization
  - Teaching relaxation
  - Constructing anxiety hierarchy
  - Present anxious stimuli and use relaxation
- Flooding
  - Prolonged and repeated exposure
    - Used with response prevention (no avoidance/escape)
- Modeling and reinforced practice (in vivo)

Treatment of Anxiety

- Uses behavior components and addresses cognitions
  - How thinking contributes to anxiety
  - How to modify maladaptive thoughts to decrease symptoms
- Coping Cat
  - Role-play, exposure, modeling, and relaxation training
  - Fear Plan
    - F-feeling frightened (physical symptoms)
    - E-expecting bad things to happen (anxious thoughts)
    - A-attitudes and actions that will help (coping-self talk and behavior)
    - R-results and rewards (evaluate performance)
- Family Interventions
  - Context of parental anxiety and problematic family relationships

Treatment of Depression

- Cognitive-behavioral therapy (CBT)
  - Cognitive
    - Identify, challenge, and modify negative thought processes
  - Behavioral
    - Increasing pleasurable activities
    - Providing with the skills necessary to obtain more reinforcement
      - Social skills training
- Interpersonal Psychotherapy (IPT)
  - Improving interpersonal communication

Treatment of ADHD

- Stimulant medication
  - Most effective and common
- Parent Management Training
  - Taught to understand biological basis of ADHD
  - Taught behavior management principles and techniques
  - Encouraged to spend time sharing enjoyable activity
  - Taught how to reduce own levels of arousal
- Educational Intervention
  - Focus on managing symptoms that interfere with learning
  - Set realistic goals and objectives
  - Implement response-cost procedures

Treatment of ASD

- Goals: minimize core problems, maximize independence and quality of life, and help cope
  - Most benefit:
    - Early intervention
    - Community-based education
    - Developmental oriented
- Focus on specific social, communication, cognitive, and behavioral deficits
  - Engage children in treatment, decreasing disruptive behaviors, teaching appropriate social behavior, increasing communication promoting cognitive and adaptive skills

Treatment of ASD

- Initial Stages
  - Building rapport and teaching child learning-readiness skills
  - Discrete trial training- step by step approach presenting a stimulus requiring a specific response
  - Incidental training- capitalizing on naturally occurring opportunities
- Reducing Disruptive Behavior
  - Reward competing behaviors, ignoring, mild punishment
- Teaching Appropriate Social Behavior
- Teaching Appropriate Communication Skills
  - Operant speech training

ABC's of Problem Behavior

- A = Antecedent
  - Events that precede and trigger the problem behavior

- B = Behavior
  - The problem behavior itself

- C = Consequence
  - Events occurring as a result of the behavior that reinforce it in the future

Common Antecedents

- Frustration
  - Not knowing what to do
  - Wanting something
  - Interrupted activity
- Under stimulation
  - Bored
  - Being ignored
- Over stimulation
  - Too much noise, too hot, too crowded, etc.
  - Expectations too high

Common Antecedents

- Behavior of Others
    - Seeing others do what the child cannot
    - Seeing others get away with misbehavior
- Internal states
    - Feeling embarrassed
    - Hungry/thirsty
    - Not enough sleep
    - Pain
- General environment
    - Too many distractions
    - Not enough structure
    - Not enough supervision

Manipulation of Antecedent & Consequence

- Antecedent Manipulation

  - Prevent the undesired behavior by removing the trigger for the behavior

- Consequence Manipulation

  - Reinforcement: Adding (positive) or removing (negative) something to increase the behavior

  - Punishment: Adding (positive) or removing (negative) something to decrease the behavior

Differential Attention

- Paying attention to the child's good behavior
  - Provide nonverbal signs of approval (e.g., hug, pat on the shoulder, high five)
  - Provide verbal approval (e.g. "Great job", "Nice going", "Fantastic")
    - Labeled praise: Identify the behavior that you want to see more of (e.g., "I like it when you…", "That was terrific the way you…")

- Ignoring the child's misbehavior
  - Remove all attention (verbal and nonverbal) for displays of minor, nondestructive misbehavior
  - Immediately return attention and provide approval when child exhibits good behavior

Rewards

- Token Economy/Sticker Charts
  - Clearly identify behaviors for change
  - Identify the reward ahead of time
  - Identify how many tokens/stickers need to be saved up for the reward
  - Make the rewards achievable and meaningful
  - Give token/sticker immediately following targeted behavior
  - Use visual reminders
  - BE CONSISTENT!

- Older Children
  - Allowances
  - Behavioral contracts for privileges

Punishments

- Time out
  - Issue a warning
  - Send to time out if child does not begin to comply
  - Select a quiet and safe area away from other stimuli
  - Tell the child how long the time out will be (recommend 1 min per year and use of a timer)
  - Ignore the child's behavior while in time out
  - Have child remain quiet before leaving time out (recommend at least the final 30 sec)
  - Reissue the command and praise compliance OR implement time out again for noncompliance

- Removal of privileges
  - Determine a specific plan for the child to earn back privileges