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Behavioral Issues of Children with DCC: An Update

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Behavioral Issues of Children with DCC: An Update

Glena L. Andrews, Ph.D.
NODCC 2010 Conference
Santa Clara, CA

Earlier Research Findings

- Lower capacity for somatosensory information processing
 - Schieffer, 1999
- Lower ability for tactile-spatial functioning
 - Brown et al, 1999
- Perform within average range on mental flexibility tests
 - Schieffer, 1999

Earlier Research Findings

- Difficulty with inductive reasoning
- Deficits in fluid intelligence:
 - Problem solving
 - Memory encoding
 - Concept formation
 - Sequential reasoning
- Difficulty learning new rules
 - Schieffer, 1999

Earlier Research Findings

- Trouble processing complex social interactions
 - Schieffer, 1999, Paul, 1998
- Unaware of subtle interpersonal information
- Unaware of subtle emotional information
- Struggle to process emotions

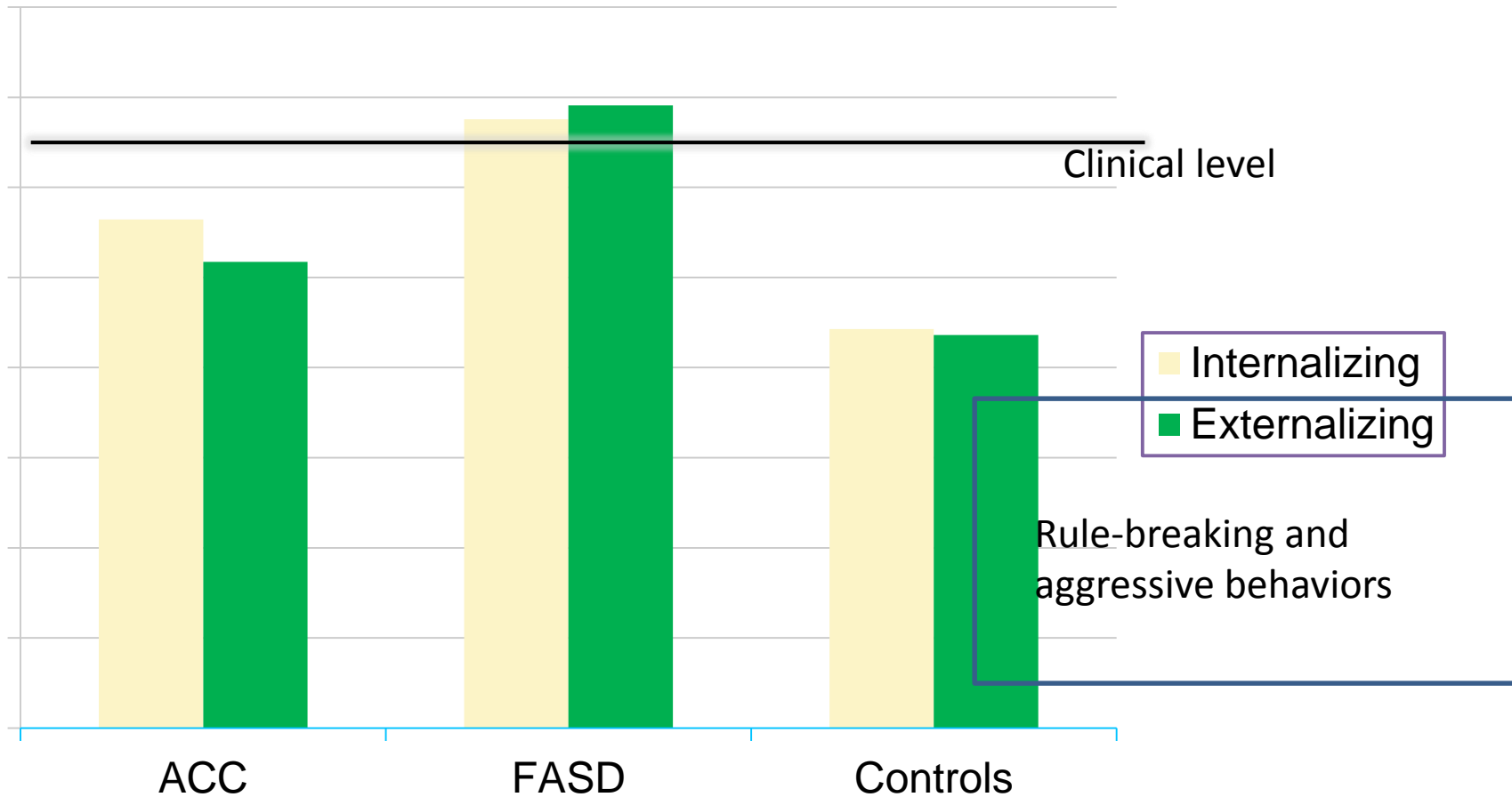
Earlier Research Findings

- Less likely to use feeling words in describing events
 - Khatchikian, 2001
- Socially naïve
- Poor self-awareness
- More difficulty with emotional processing
 - Brown & Paul, 2000

Behavioral Issues Research

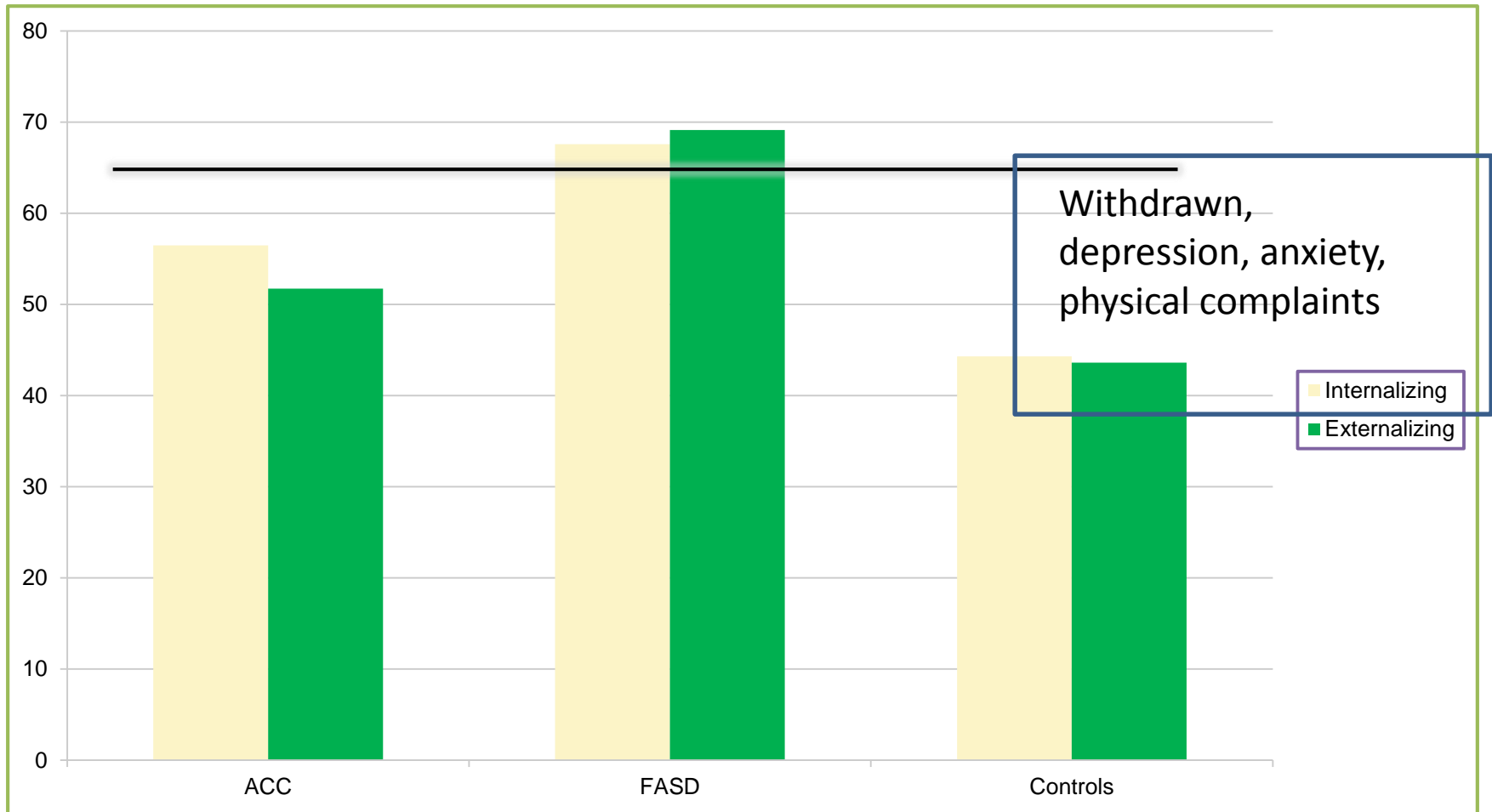
- Children and teens (Mean age = 11 years)
- 28 with complete ACC
- 2 with partial ACC
- Comparison groups
 - Fetal alcohol syndrome
 - Prenatal exposure to alcohol
 - Children with no diagnosis

Behavioral Issues Research: Achenbach



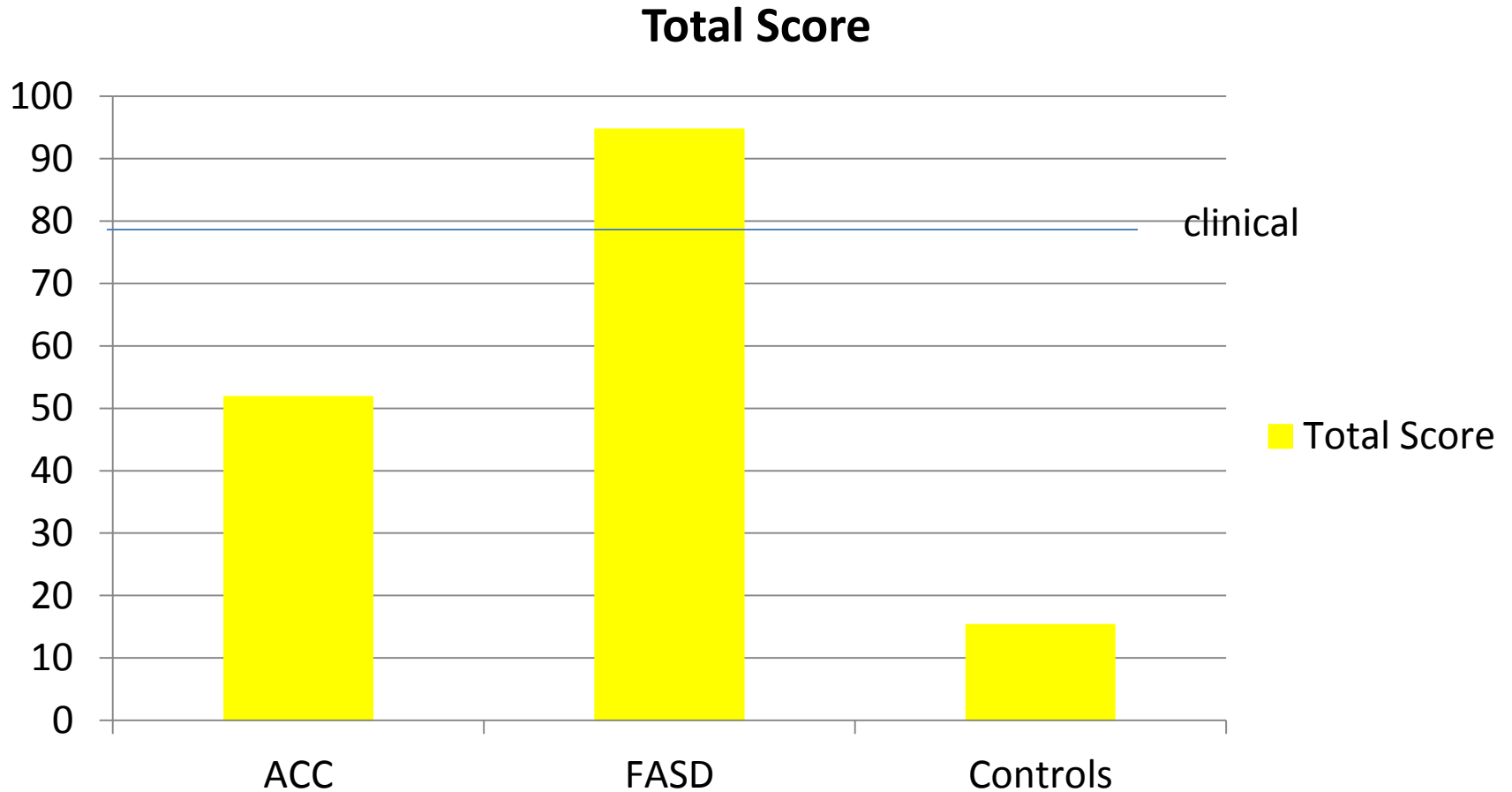
$p > .001$

Behavioral Issues Research : Achenbach



$p > .005$

Behavioral Issues Research: Behavioral Traits Survey



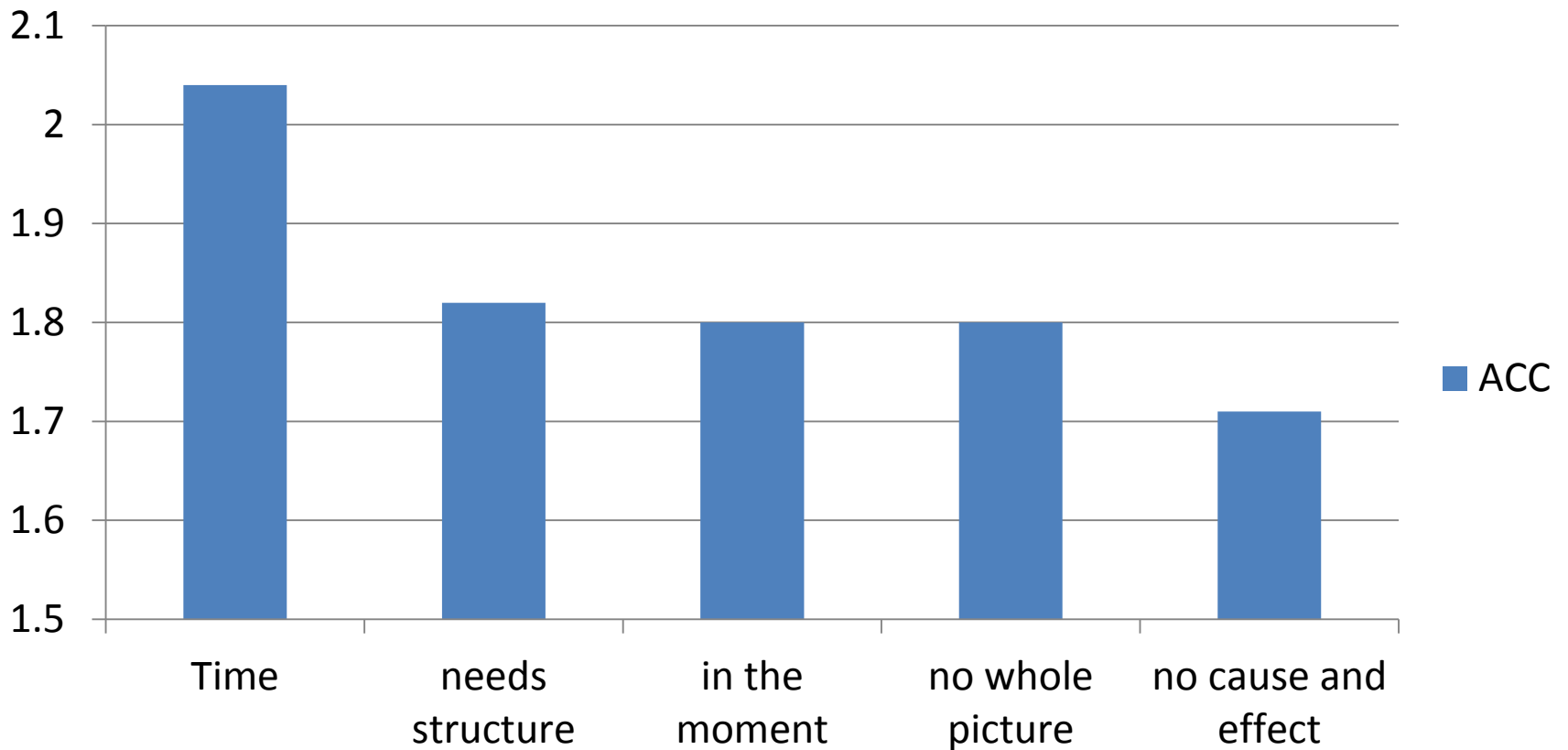
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Behavioral Traits Survey

- Sample = 85
- 30 participants with ACC or partial ACC
- Ages 1 ½ to 28 years

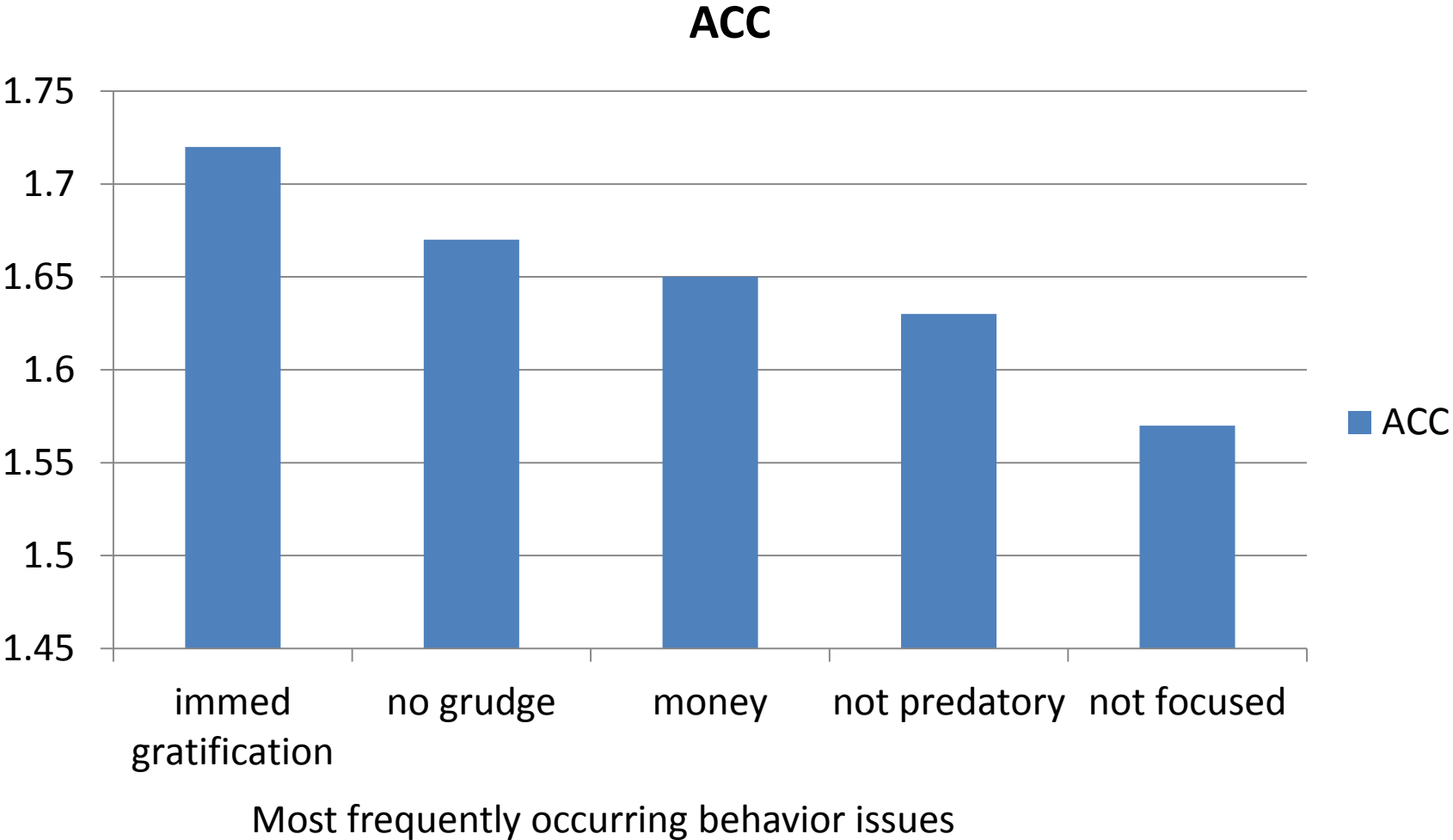
Behavioral Traits Survey: Item Evaluation

ACC



Most frequently occurring behavior issues

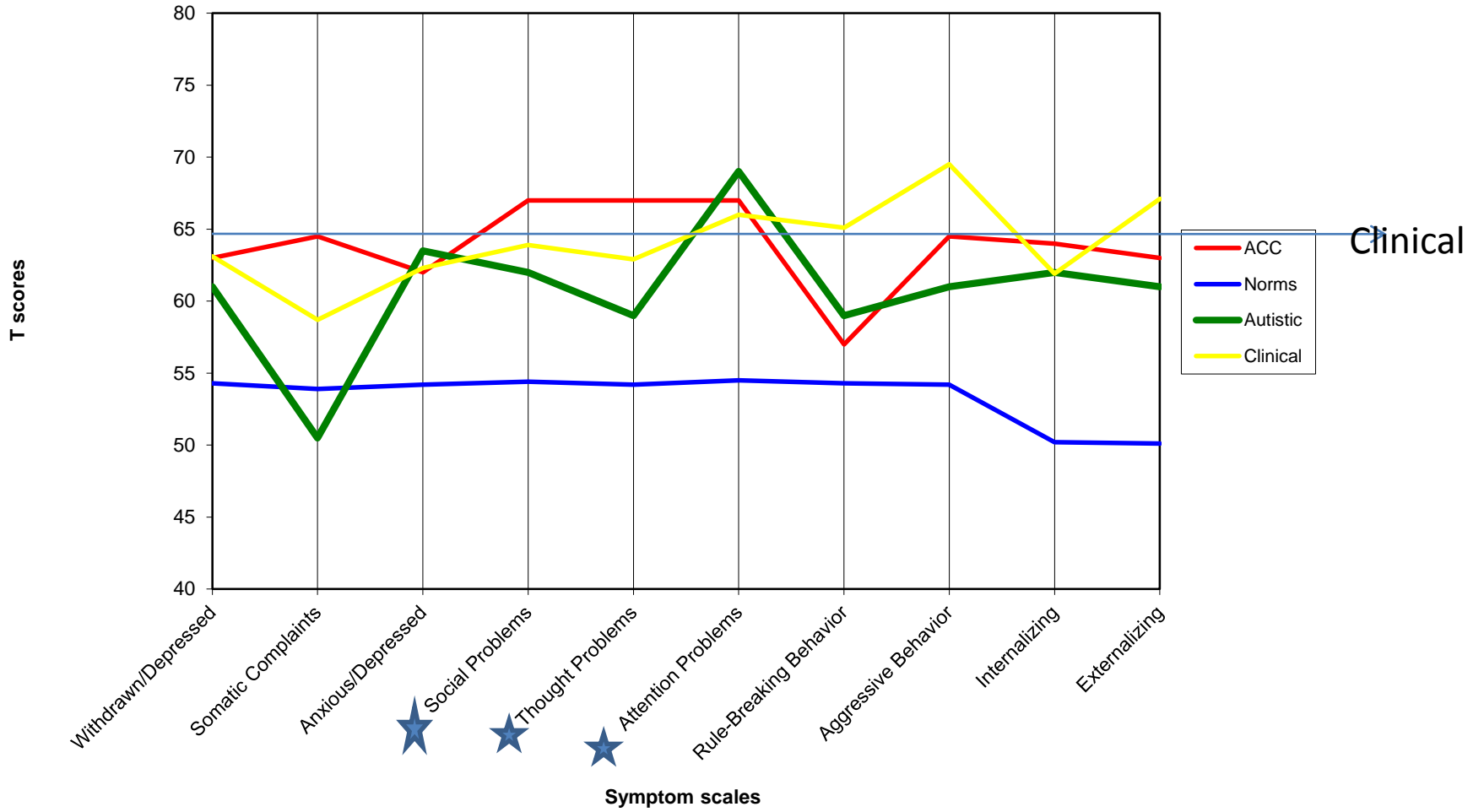
Behavioral Traits Survey: Item Evaluation



Social and Emotional Research: Children 6-11 years

- Sample of 61
- All met age appropriate developmental milestones
 - Sat without support by 10 mo
 - Walked independently by 20 mo
 - According to parent report
 - Andrews & Badaruddin 2006

CBCL Comparison for 6-11 year olds



Social and Emotional Research: Children 6-11 years

- CBCL Social Problems
 - Overly dependent
 - Lonely
 - Does not get along with others
 - Jealous of others
 - Feels others are out to get her or him
 - Accident-prone
 - Is teased by others
 - Not liked by others
 - Clumsy
 - Prefers to be with younger children
 - Problems with speech

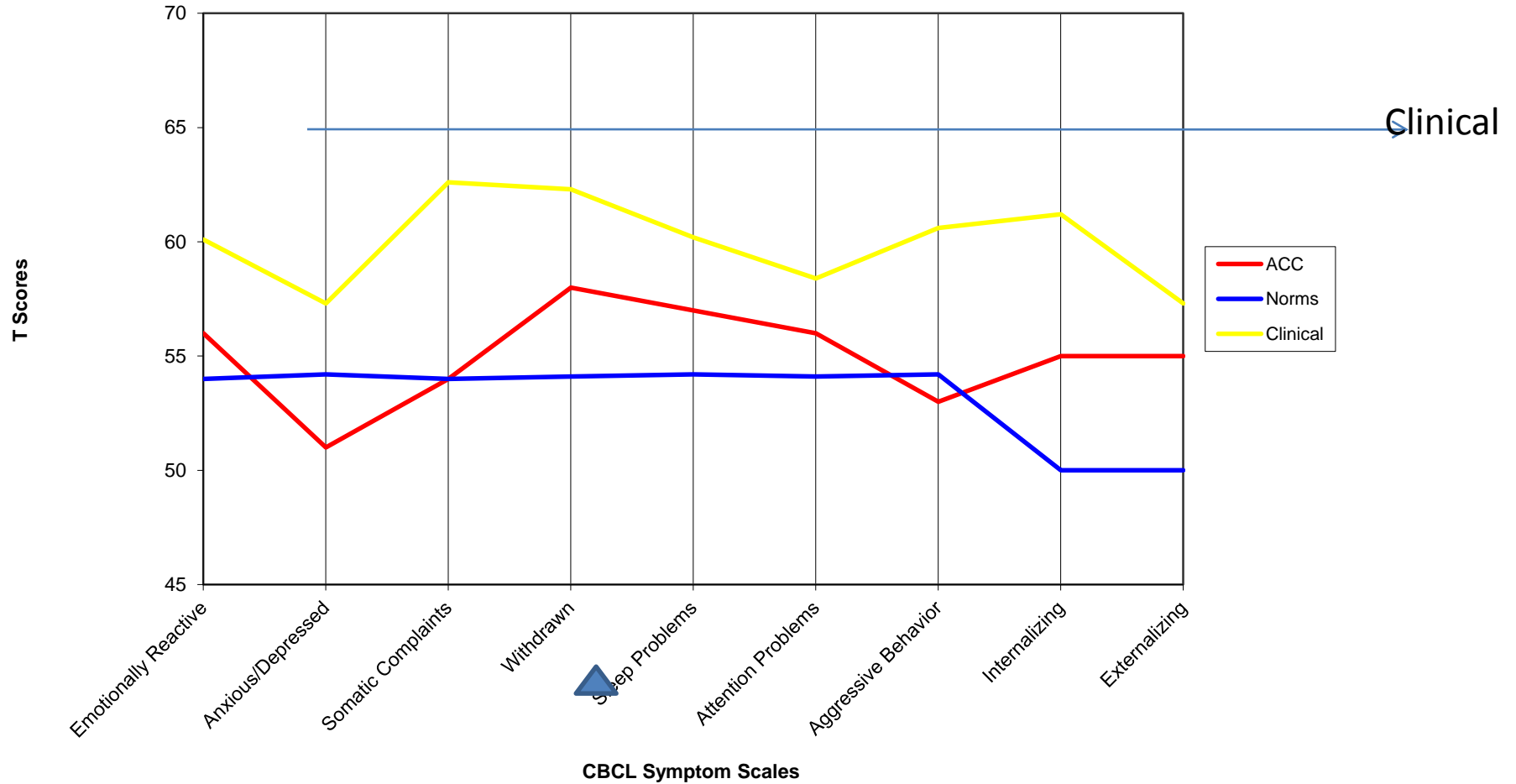
Social and Emotional Research: Children 6-11 years

- CBCL Thought problems
 - Ruminates
 - Harms self
 - Hears and/or sees things (others don't)
 - Twitches
 - Picks skin
 - Repeats behaviors or acts
 - sleeps less
 - Stores things
 - Unusual behavior/ideas
 - Sleep talks/walks
 - Trouble sleeping

Social and Emotional Research: Children 6-11

- CBCL Attention Problems
 - Acts younger than age
 - Fails to finish tasks
 - Unable to concentrate
 - Confused
 - Daydreams
 - Impulsive
 - Poor schoolwork performance
 - Inattentive
 - stares

CBCL Comparison for 2-5 year olds



Social and Emotional Research: Children 2-5 years

- CBCL Withdrawn
 - Acts younger than age
 - Avoids eye contact
 - Does not answer
 - Refuses active games
 - Unresponsive to affection
 - Shows little affection
 - withdrawn

Why the difference between 2-5 and 6-11 year olds?

- Increased social and academic demands with age
- Increased disparity in the myelination (maturation) of the corpus callosum

Comparison Group: Autism

- Confusion between children with DCC and those on the Autism Spectrum
 - Some similar behaviors
 - 23% of children with ACC would qualify for a diagnosis of Autism
 - 7% of children with ACC would qualify for a diagnosis of Asperger's disorder

Badaruddin &
Andrews, 2006

Diagnostic Criteria for Autism Spectrum Disorders

- Deficits in Social Interaction
 - ✓ Nonverbal behavior
 - ✓ Developing peer relationships
 - ✓ Sharing interests with others
- Deficits in Social Communication
 - ✓ Delay in spoken language
 - ✓ Initiating & sustaining conversation
 - ✓ Repetitive or idiosyncratic language
 - ✓ Lack of make-believe or symbolic play
- Repetitive/Restricted Behavior
 - ✓ Preoccupation with interest
 - ✓ Nonfunctional routines or rituals
 - ✓ Repetitive motor mannerisms
 - ✓ Preoccupation with part of objects

ACC vs. Autism vs. Asperger's Syndrome

| Diagnosis | Social Interaction Deficits | Social Communication Deficits | Repetitive and/or Restricted Behavior |
|------------------|-----------------------------|-------------------------------|---------------------------------------|
| <i>ACC</i> | X | X | |
| <i>Autism</i> | X | X | X |
| <i>Aspergers</i> | X | | X |

Implications from this study

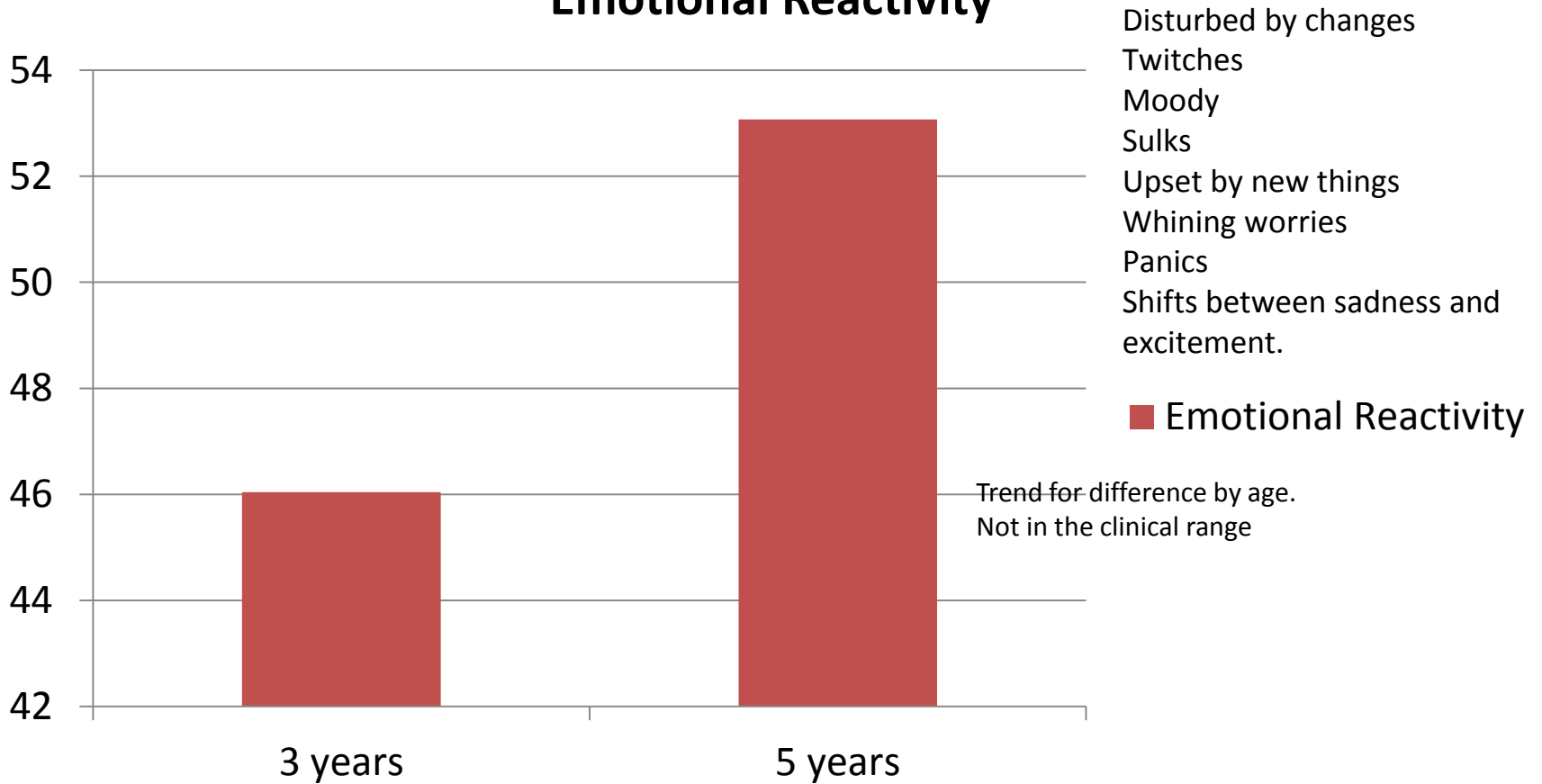
- Behavioral problems may become more pronounced with increasing social & academic demands
- With age, the disparity between corpus callosum functioning increases
- Autism interventions may be useful
- Autism diagnosis may be appropriate & useful (though ACC & Autism are *not* the same)

Infant-Toddler Study

- Sample = 134
- Complete ACC
 - 54 females
 - 35 males
- Partial ACC
 - 21 females
 - 21 males

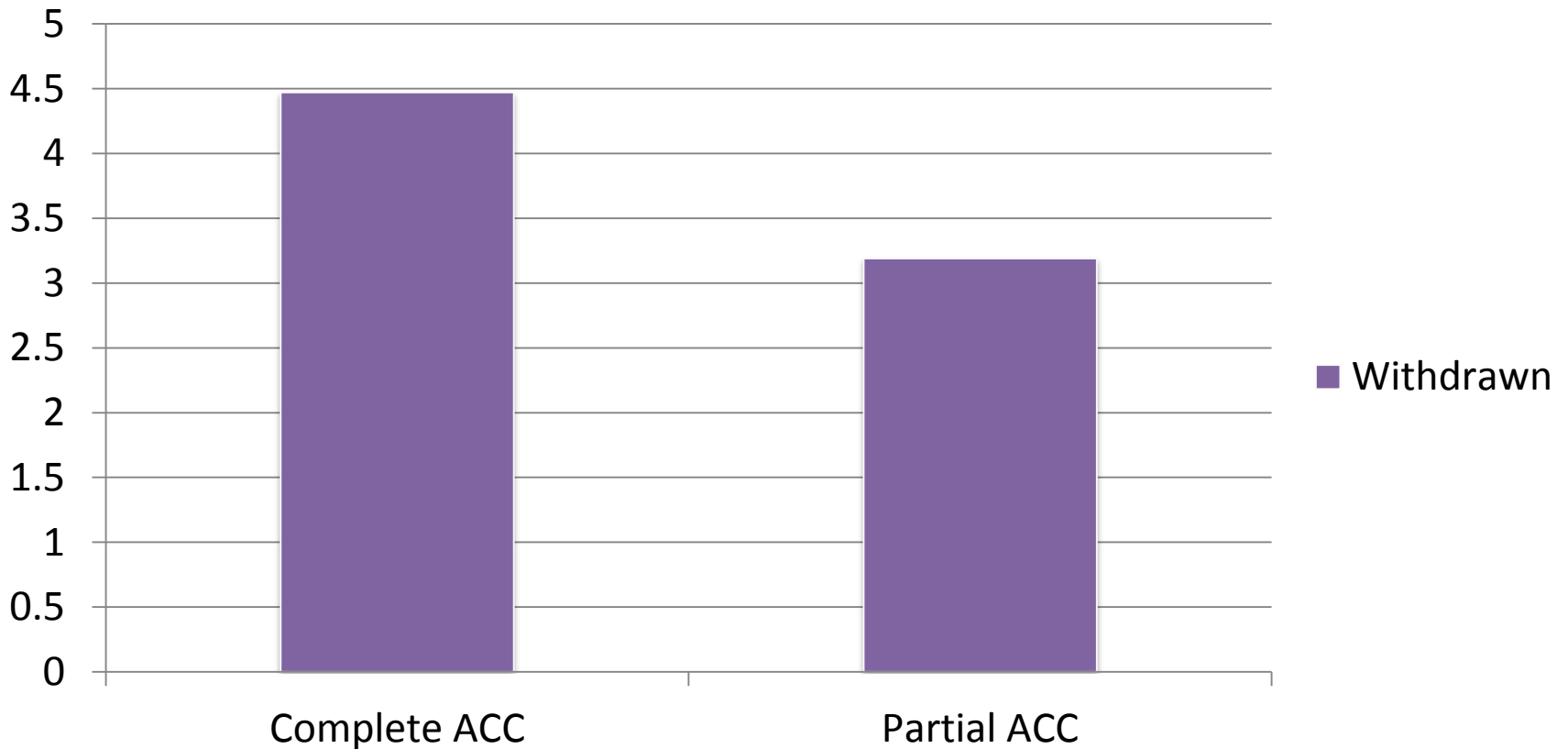
Infant-Toddler Study: CBCL

Emotional Reactivity



Infant-Toddler Study

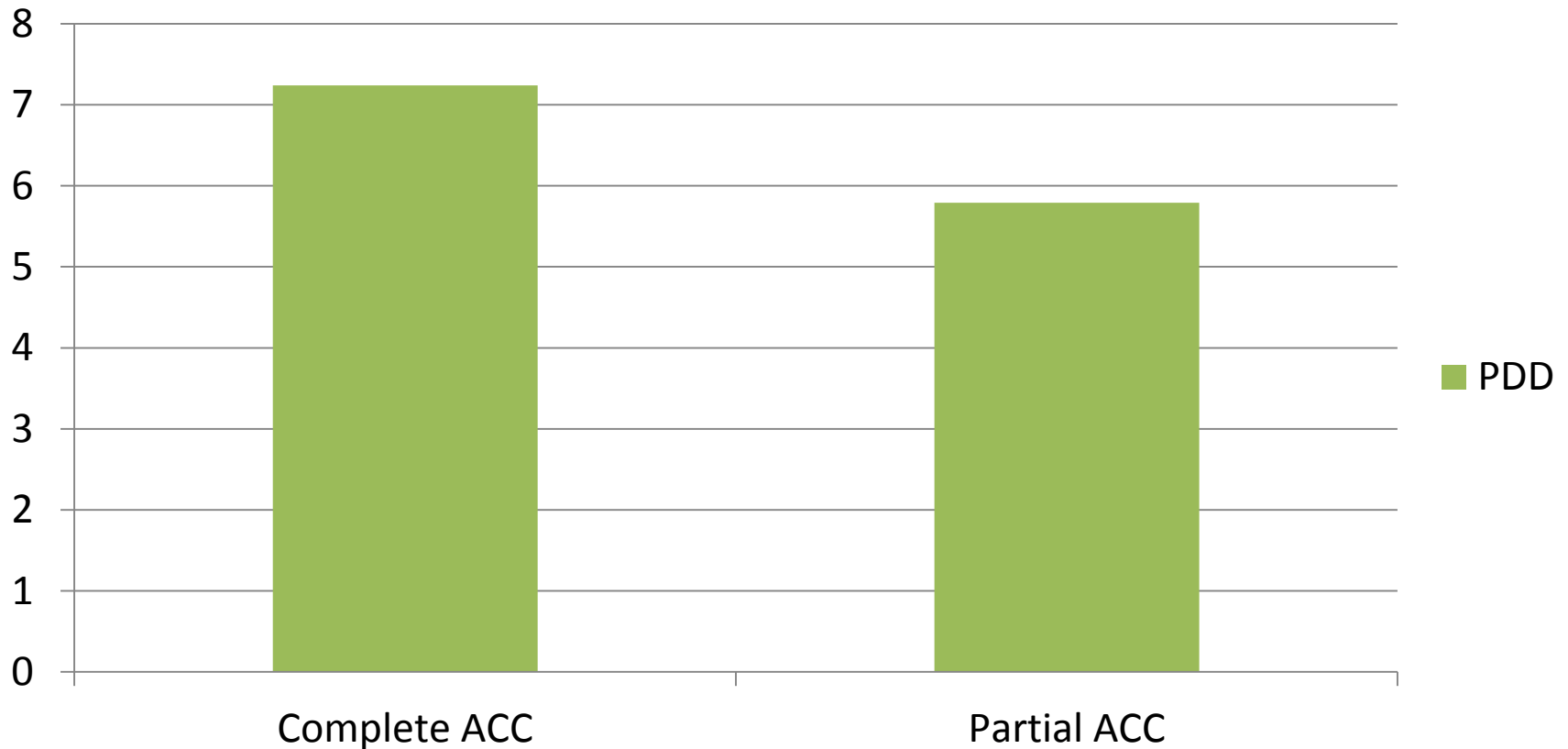
Withdrawn



Trend, both within average range

Infant-Toddler Study: CBCL

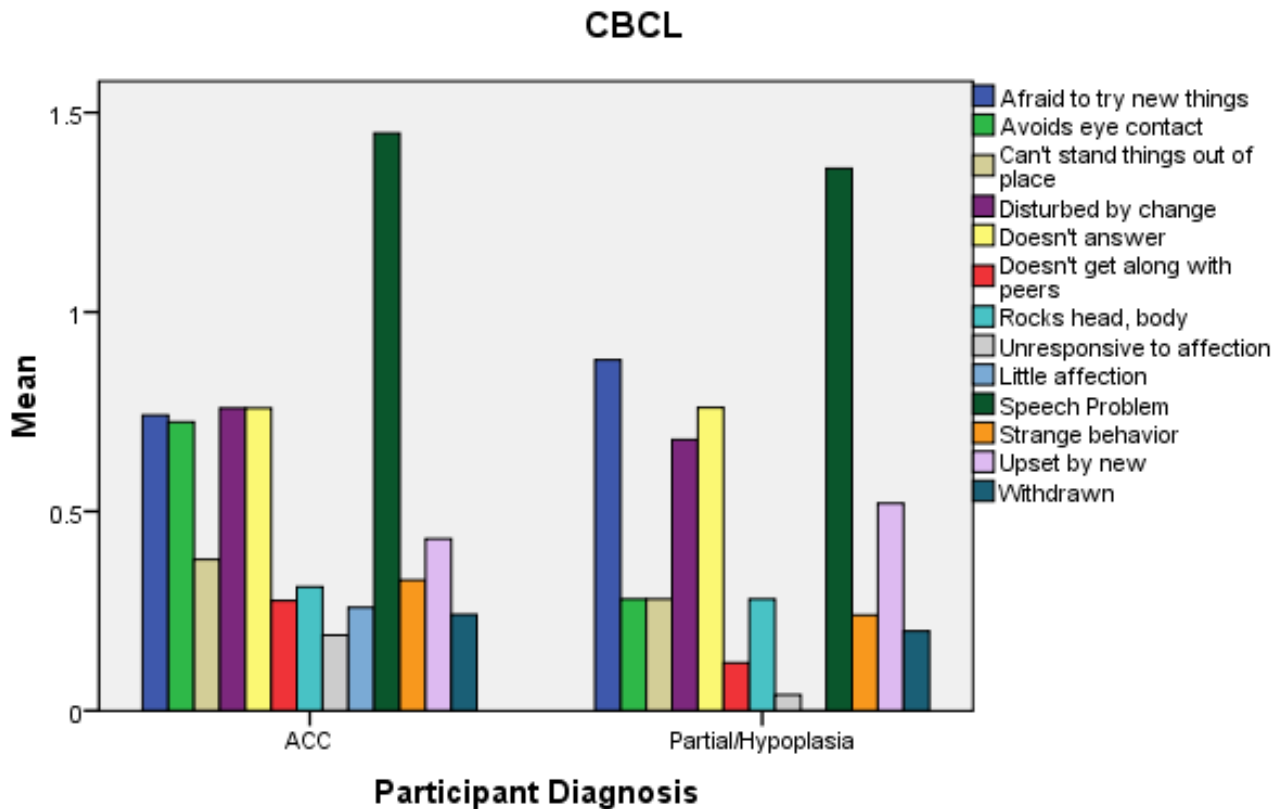
Pervasive Developmental Disorder



$p < .05$ complete ACC in borderline clinical range

Infant-Toddler Study

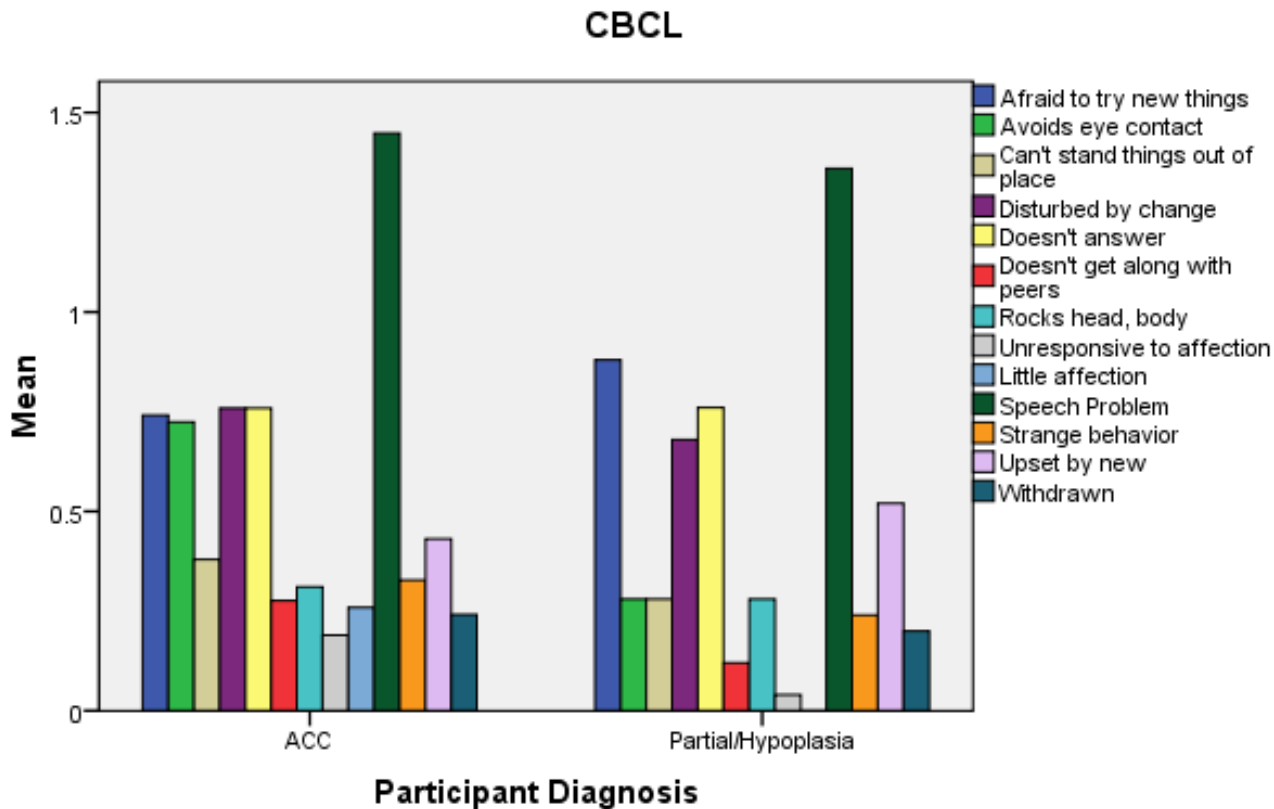
Item Ratings for Pervasive Development Problems



Speech problems are the most frequently occurring issue, but may go unnoticed as the problems are not in the clinical range.

Infant-Toddler Study

Item Ratings for Pervasive Development Problems



Positive Behaviors:

- *Affectionate toward others
- *not withdrawn
- *do not display “strange” behaviors
- *gets along with others

Infant-Toddler Study

- Implications
 - Children with DCC begin to demonstrate emotional difficulties around age 5
 - Children with complete ACC appear to demonstrate more withdrawn behaviors even before age 5 years
 - Children with complete ACC fall in the borderline clinical range with behaviors similar to PDD
 - Speech problems appear to be the most frequent issue

Making the Information Practical

- We know there are issues that must be addressed
 - Find your child's strengths
 - Help others (family members, teachers, etc) to also find the strengths
 - Keep records
 - “star” books

Making the Information Practical

- Find a support network that is informed about your child's challenges
 - Family
 - School personnel
 - Medical professionals
 - Mental health professionals
 - Paraprofessional services
 - Psychosocial rehabilitation
 - Case management

Making the Information Practical

- Be prepared to educate others (for years!)
 - About the diagnosis
 - About subtle differences between DCC and other diagnoses
 - About your child's needs
 - About your child's strengths

Making the Information Practical

- Be proactive in working with your child
 - Teach social skills
 - Modeling
 - Age appropriate explanations
 - Peer social skills groups
 - Role playing
 - Repeatedly if your child needs to learn behaviors by rote
 - Adjust methods as your child ages

Making the Information Practical

- Be proactive in working with your child
 - Learn warning signs
 - When your child is becoming overwhelmed
 - When your child is frightened
 - When changes are triggering behaviors
 - When your child is confused
 - Social settings
 - Emotions of others
 - New situations

Making the Information Practical

- Be proactive in working with your child
 - Learning how to work with school personnel
 - Know your state laws
 - Know your advocates (local and state)
 - Expect to educate professionals repeatedly
 - DCC is rare
 - Understand a 504 and IEP
 - Explore whether your child might benefit from one or the other

Making the Information Practical

- Some behaviors may not be learned
 - Time management
 - Money management
 - Social cues
 - Certain types of humor
 - Cause and Effect
 - Looking at the whole picture
- Decide alternative methods for helping your child manage the issues

Infant-Toddler Current Research

- Ages birth-3 ½ years
- Bayley Development Scales –III
 - Cognitive
 - Motor
 - Communication
 - Emotional
 - Social

References

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Thank you for
coming and
listening!

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