


Slide
1



NeurAbilities Healthcare


Improving Social Outcomes for Children with Neurodevelopmental Disorders

Azlen O. Theobald, Psy.D.
February 12, 2020

Slide
2

Objectives

- Outline diagnostic criteria for Tourette's Syndrome, Autism Spectrum Disorder, and ADHD
- Discuss influence of stigma and rejection among children with varying neurodevelopmental presentations
- Children's' perceptions of others
- Interventions considered to help improve peer acceptance




NeurAbilities
Healthcare

©NeurAbilities Healthcare, 2020.

Slide
3

Tourette's Syndrome DSM-5 Criteria

- Tourette's Syndrome (TS)
 - Heritable, neurodevelopmental disorder
 - 2 or more motor tics (blinking, shrugging)
 - At least 1 vocal tic (humming, clearing throat)
 - Tics must be present at least 12 months
 - Onset prior to age 18
 - Symptoms not due to medication, other drugs, or to another medical condition (e.g. Epilepsy, Huntington's Disease, postviral encephalitis)



NeurAbilities
Healthcare


©NeurAbilities Healthcare, 2020.

Slide

4

Autism Spectrum Disorder DSM-5 Criteria

- Autism Spectrum Disorder (ASD)
 - Persistent deficits in social communication and social interaction across multiple contexts
 - Manifested by deficits in social-emotional reciprocity, nonverbal communicative behaviors used for social interaction (pointing, gesturing), or deficits in developing, maintaining, or understanding relationships
 - Restricted, repetitive pattern of behavior, interests, or activities
 - Symptoms present in early developmental period and cause functional impairment




Slide

5

ADHD DSM-5 Criteria

- Attention-Deficit/Hyperactivity Disorder (ADHD)
 - 6 or more symptoms INATTENTION for children up to 16 years; 5 or more for adolescents/adults age 17+
 - Symptoms of inattention present for at least 6 months; inappropriate for developmental level
 - 6 or more symptoms HYPERACTIVITY/IMPULSIVITY for children up to 16 years; 5 of more for adolescents/adults age 17+
 - Symptoms of inattention present for at least 6 months; inappropriate for developmental level
 - Symptoms present before age 12
 - Present in 2 or more settings
 - Symptoms interfere with social, school, or work functioning




Slide

6

Prevalence – Tourette’s Syndrome

(CDC’s “A National Profile of Tourette Syndrome, 2012)

- Estimates of diagnosed and undiagnosed TS include 1 of every 162 children (0.6%) have TS
- Parent data shows 1 in every 360 (0.3%) of children ages 6 to 17 in the U.S. have received a TS diagnosis
- Suggests that about half of children with TS are NOT diagnosed
- Worldwide = 1% of population
- Boys are three to five times as likely to have TS compared to girls
- Non-Hispanic white children 2x more likely to have TS



Slide

7

Parents' Perspectives

- First noticed tics in children at 6 years of age on average
- Average time from noticing tics to getting diagnosed was 2 years
- Average of tic severity was 9 years of age
- Most parents reported tics were noticeable to strangers
- Tic severity linked to impairment in daily functioning
- Nearly 70% of parents reported stress such as starting a new school, moving classes, made symptoms worse



©NeurAbilities Healthcare, 2020

Slide

8

Comorbidity with Tourette's Syndrome

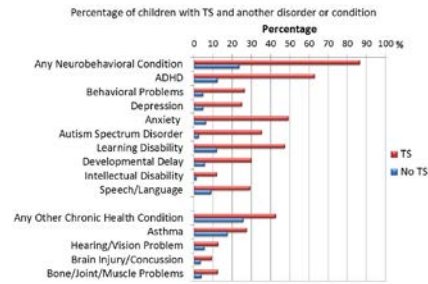


©NeurAbilities Healthcare, 2020

Slide

9

Comorbidity with Tourette's Syndrome



Data on 65,540 US children aged 6-17 years from the 2011-2012 National Survey of Children's Health



©NeurAbilities Healthcare, 2020

Slide
10

Children with Disabilities

- Preschool peers notice differences in others, often as young as three years of age (Aboud, 2003)
- Students with disabilities encounter negative social interactions with peers – even mainstreamed (Eddy et al., 2011)
- Physical vs. neurodevelopmental disabilities bias (Pittet, Akré, Michaud, & Suris, 2010)
 - Both experience social difficulties
 - Less peer acceptance toward children with neurodevelopmental disabilities
 - Causal attribution

©NeurAbilities Healthcare, 2020




Slide
11

Are Behaviors On Purpose or Not?

- Children in early elementary ages often associate one's behaviors to be within their control (e.g. tics, hyperactivity)
- Children make inferences that behaviors are purposeful, even when the child is exhibiting symptoms from a disorder not physical in nature
- Children better understand physical differences (e.g. blindness, using a cane) than those that are neurodevelopmental

©NeurAbilities Healthcare, 2020




Slide
12

Stigma and Rejection Among Children With Disabilities

- Peer rejection
 - Predictive of wide range of externalizing problems in adolescence (Kupersmidt & Coie, 1990)
 - Delinquency
 - Conduct disorder
 - Attention difficulties
 - Substance use

©NeurAbilities Healthcare, 2020



Slide
13

Stigma and Rejection Among Children With Disabilities

- Children with neurodevelopmental disorders at risk for:
 - Limited friendships
 - Exclusion from socialization experiences
 - Few opportunities to refine social skills
 - Persists into adulthood
- Acceptance by peers (Rubin, Bukowski, & Parker 2006; Rubin Coplan, Chen, Bowker, & McDonald, 2011)
 - School adjustment
 - Higher-quality friendships
 - More cooperative
 - Initiate and maintain friendships

©NeurAbilities Healthcare, 2020.




Slide
14

Bullying Toward Children

- Behavior that must occur repeatedly
- Becomes dreaded by the victim
- Involves a power differential
- Encompasses:
 - Aggression
 - Teasing
 - Gossiping
 - Shunning/rejection

©NeurAbilities Healthcare, 2020.




Slide
15

Bullying Toward Children with Disabilities

- Higher rate of bullying, particularly during middle school years
- Typically-developing children experience 10.6% rate of bullying
- Children with ASD, TS, ADHD experience bullying at a much higher rate
- Vicious cycle involves depression, social anxiety, etc.

©NeurAbilities Healthcare, 2020.




Slide
16

Long-Term Effects of Bullying/Rejection

- Lose self-confidence
- School refusal
- Emotional upset
- Reversion to more introverted personality style
- Lose trust in others
- Persists into adulthood

©NeurAbilities Healthcare, 2020




Slide
17

Creating Interventions Designed to Improve Peer Relations

- Necessary to first understand the context in which children make assumptions about peers' behaviors
- Attribution Theory = how children make sense of an individual's behavior
- Depends highly on a child's cognitive skills
- A child's exposure or familiarity to the illness or disability is a significant factor

©NeurAbilities Healthcare, 2020




Slide
18

Interventions to Improve Peer Attitudes

- Explanatory (factual) Information:
 - Designed to increase **knowledge** about a particular disorder
 - "Tourette Syndrome is not something I can control."
 - Positively associated with improving attitudes of younger but not older children

©NeurAbilities Healthcare, 2020




Slide
19

Interventions to Improve Peer Attitudes

- Similarities Information (descriptive)
 - Highlights similarities between peers
 - ☐ *“Robby likes going to the movies, just like other kids in his class.”*
 - ☐ Sameness effects; perceived similarity

©NeurAbilities Healthcare, 2020




Slide
20

What Hasn't Been Considered?

- A child's developmental process of social cognition
 - Theory of Mind
 - Empathy
 - Emotion understanding (Ornaghi, Brockheimer, & Grazzani, 2014)
- Empathy training enhances empathetic feelings and understanding of others → increase prosocial behavior (Findlay, Giraldi, & Coplan, 2006)
- Greater baseline empathy = more prosocial behaviors

©NeurAbilities Healthcare, 2020




Slide
21

Age Considerations for Empathic Intervention Development

- Why create an empathic intervention?
 - Empathy and its role in prosocial behavior
 - Early adolescents' improved perspective-taking skills, and emotional concern
 - Cognitive social learning theory; moral development (Bandura, 1986; Kohlberg, 1984)

©NeurAbilities Healthcare, 2020



Slide
22


Empathy and Prosocial Behavior

- Determinants of positive peer attitudes:
 - 1) Child's ability to take perspectives of another
 - 2) Child's capacity to imagine what others are thinking and feeling

WHY THESE AGES for EMPATHY?

It is not until middle childhood (ages 8-11) that these advances are seen in children's developmental skills (Izard, Ackerman, Fine, & Schoff, 2000; Malti, Chaparro, Zuffiano, & Colasante, 2016)

©NeurAbilities Healthcare, 2020




Slide
23

Sex Differences and Attitudes Toward a Peer with Disabilities

- Most children prefer friends of the same sex, particularly in elementary and into middle school
- Girls → more positive attitudes and behavioral intentions compared to boys (Bell & Morgan, 2000; Friedrich, Morgan, & Devine, 1996; Rosenbaum, Armstrong, & King, 1988)
- Across the literature, **OLDER GIRLS**, compared to boys, rated children with externalizing (ADHD) and internalizing (depression) disorders more favorably (e.g. Campbell, Ferguson, Herzinger, Jackson, & Marino, 2004; Gary & Rodrigue, 2001)

©NeurAbilities Healthcare, 2020



Slide
24

Purpose of Proposed Study

- Compare 3 video interventions
 - Factual (explanatory)
 - Empathic awareness (emotional)
 - Combination of factual and empathic awareness

Help to inform disability awareness trainings in schools

GOAL: Improve peer acceptance and behavioral intentions toward children with differences

©NeurAbilities Healthcare, 2020

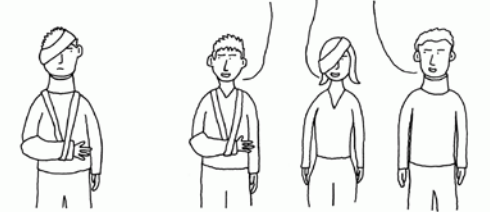


Slide
25

Empathy - It's Catching!

EMPATHY

WE KNOW EXACTLY
HOW YOU FEEL



©NeurAbilities Healthcare, 2020

NeurAbilities
Healthcare

Slide
26

Evaluating Different Interventions

- Philadelphia Empathy and Social Cognition (PESC) Videos – Tourette Syndrome version (Montague & Theobald, 2016)
 - 1) Explanatory (factual) information
 - 2) Empathy (emotional awareness) information
 - 3) Combination of explanatory and empathy

©NeurAbilities Healthcare, 2020

NeurAbilities
Healthcare

Slide
27

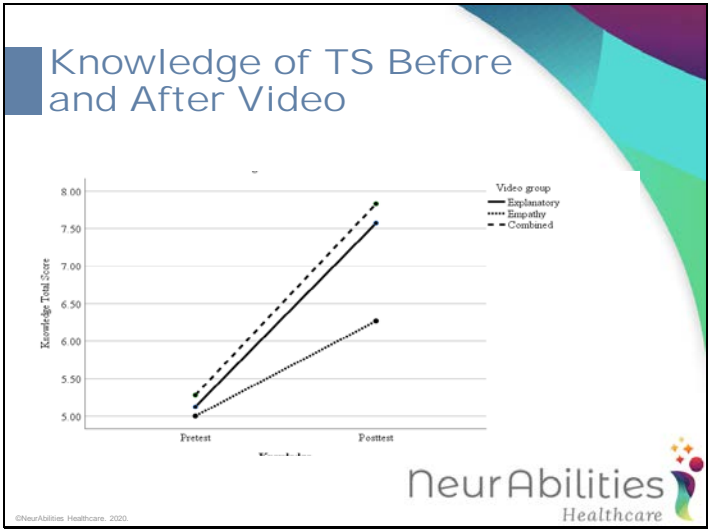
Evaluating Different Interventions

- Studied 200 children
- Demographically consistent
- Little to no prior knowledge or understanding of TS
- 3rd and 6th graders

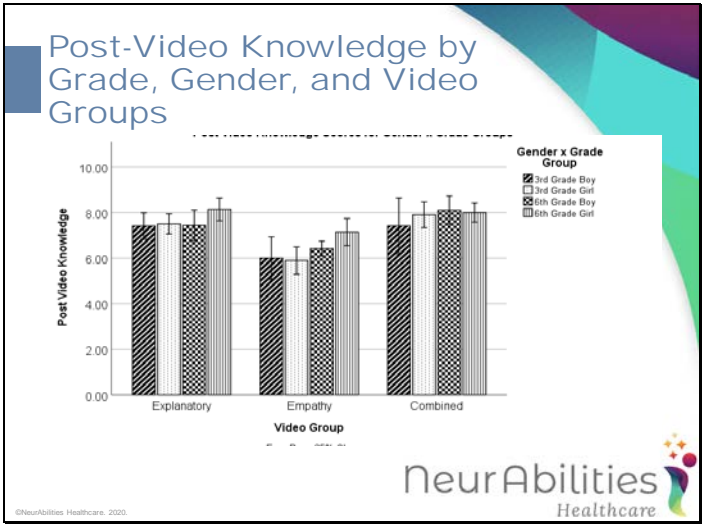
©NeurAbilities Healthcare, 2020

NeurAbilities
Healthcare

Slide
28



Slide
29



Slide
30

Improving Beliefs

- Positive relationship existed between post-video knowledge and more favorable beliefs toward boy in video
- Participants who **LEARNED** more, had **IMPROVED** beliefs toward children with TS
- BUT** – there’s a difference between **beliefs** and **attitudes**, and therefore knowledge does not often translate into positive social interactions

©NeurAbilities Healthcare, 2020.

Slide
31

Social Desirability



NeurAbilities
Healthcare

©NeurAbilities Healthcare, 2020

Slide
32

Role of Sex Effects

- Boys had better attitudes when shown the video of the male actor
- Girls had better attitudes when shown the female actor

NeurAbilities
Healthcare

©NeurAbilities Healthcare, 2020

Slide
33

Role of Empathy

- Empathy scores significantly and positively related to more favorable **Beliefs, Attitudes, AND Behavioral Intentions**
- Not only did kids in the empathy group improve their attitudes toward the child in the video...they **ALSO** were **MORE** likely to interact socially with them

NeurAbilities
Healthcare

©NeurAbilities Healthcare, 2020

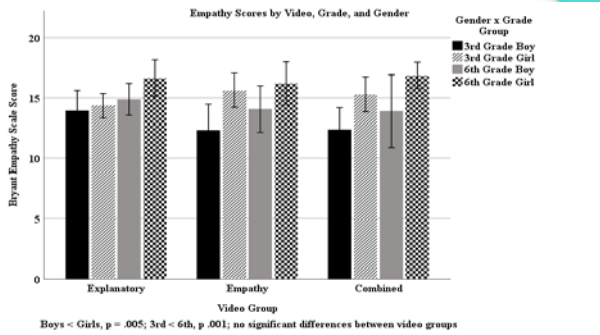
Slide 34

Role of Empathy

- Older children had higher levels of empathy and reported they were more likely to interact socially with the child with TS
- Children who had the greatest positive change (increase) in empathy were MORE likely to interact socially with the child with TS

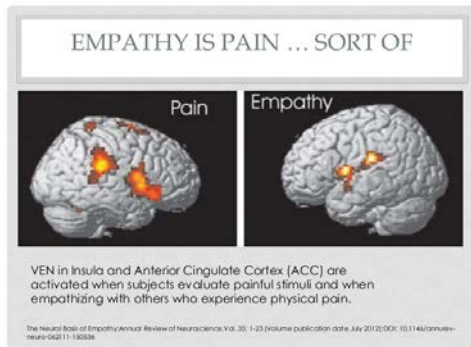
Slide 35

Empathy, Grade, and Gender by Video Group



Slide 36


Empathy Matters



Slide
37

Discussion


- Compared to previous research, this study used novel element of first-person perspective of TS, knowledge change, and empathy
- Children had an increase in knowledge overall – empathy video group least changes in knowledge
- Older children had more empathy than younger children
- Clear relationship between higher knowledge of TS and more positive beliefs

©NeurAbilities Healthcare 2020. 

Slide
38

Discussion


- Clear relationship between higher knowledge of TS and more positive beliefs about a peer with TS
- **BUT** – the leap isn't made between a better BELIEF about a child with TS and their likelihood to interact socially with them
- Social desirability effects

©NeurAbilities Healthcare 2020. 

Slide
39

Discussion

- Regarding outcome measures of beliefs, attitudes, and behavioral intentions toward child with TS
 - Empathy was a novel element and accounted for a considerable portion of participants' positive beliefs, attitudes and willingness to engage socially with a peer with TS


©NeurAbilities Healthcare 2020. 

Slide
40

How Can We Increase Empathy?

- Special = Separate; stop using “*Special Needs*”
- Differences are the basis by which we marginalize and stigmatize
- Emotional literacy
- Relating to one another

©NeurAbilities Healthcare, 2020



Slide
41

How Can We Increase Empathy?

- Start with good examples at home
- Model that you prioritize caring
- Be your child’s emotion coach
- Encourage compassionate perspective taking
- Expand childrens’ “circle of concern”
- Practice patience
- Stop, Rest, Reflect

(Harvard’s Making Caring Common project)

©NeurAbilities Healthcare, 2020




Slide
42

How Can We Increase Empathy?

- Teachers are first-line defense during the day
 - Model empathy
 - Reflection
 - Be aware of students’ non-verbal cues and follow up on them
 - Ask for students’ feedback when setting rules in the classroom or generating ideas for group projects
 - Practice empathy
 - Create opportunities to practice taking another’s perspective
 - Charades, role play, read storybooks

©NeurAbilities Healthcare, 2020




Slide
43

How Can We Increase Empathy?

- Set clear ethical expectations
 - Expect students to care about one another
 - Establish guidelines for unacceptable language and behaviors
 - Enlist students in establishing rules
 - Check in with students

©NeurAbilities Healthcare, 2020




Slide
44

How to Improve School Climate

- Educating school community about Tourette's Syndrome, ASD, etc.
- Training school staff is critical
 - Recent study of 70 school-based speech-language pathologists found (Ofe, Plumb, Plexico, & Haak, 2016)
 - 85% viewed bullying of children with ASD as "serious" or "somewhat of a" problem
 - All agreed they should intervene in acts of bullying but not all felt comfortable doing so
 - 78% were in a district with an anti-bullying campaign, but only 20% in a district where that campaign focused on children who are uniquely at-risk

©NeurAbilities Healthcare, 2020




Slide
45

How to Improve School Climate

- Increase supervision in high-risk areas (Heinrichs, 2003)
- Ongoing teacher discussions about what they are seeing
- Evaluate anti-bullying programs to see if they're working
- Studies are showing that bullying may be decreasing over time, so policy/cultural shifts can make a difference (Renshaw, Hammons, & Roberson, 2016; Chester et al., 2015)

©NeurAbilities Healthcare, 2020



Slide
46

How to Address Bullying Behaviors

- Know the bullying policy for your school district, but understand these programs are not often evaluated to see if it is effective.
- Contact the teacher and then go up the line to the principal, superintendent, and school board.
- Know the state law or policy for your state
- U.S. Office of Civil Rights

Slide
47

Resources



Slide
48


Resources

- U.S. Department of Health and Human Services
 - <https://www.stopbullying.gov/resources/laws/federal>
- U.S. Department of Education
 - <https://www2.ed.gov/about/offices/list/ocr/frontpage/pr-o-students/issues/roi-issue06.html>
- Guide to the IEP process
 - <https://www2.ed.gov/parents/needs/speced/iepguide/index.html>

Slide
49

Seeking an Evaluation

- Child Study Team at your child's school
- Speak to pediatrician or neurologist
- Licensed provider for neuropsychological evaluation
- www.NeurAbilities.com 1-856-346-0005



©NeurAbilities Healthcare 2020

Slide
50

Questions




©NeurAbilities Healthcare 2020

Slide
51

Terms of Use

- The recipient and/or possessor of this electronic file agrees not to present and/or disseminate this material in any lecture, educational, or other format, and will use this electronic file solely for the information and education of the recipient and/or possessor. The recipient and/or possessor will not rename the electronic file or save as an alternative file format.
- The recipient and/or possessor of this electronic file understands that the intellectual property and all contents of this electronic file, and any print out, reproduction, copy, upload, download, modification, adaptation, publication, broadcast, post, transfer or other form of this electronic file, and/or any derivative works, in whole or in part, are the sole property of NeurAbilities Healthcare.
- The recipient and/or possessor of this electronic file agrees that this file cannot be copied, distributed, reproduced and/or transmitted by any means, including electronic or other forms of transmission, or creation of a printed document.
- The information contained in this electronic file is solely for educational and general informational purposes and should not be used or construed as direct medical or clinical assessment and/or treatment for an individual and/or group. Always consult a physician or other qualified health care professional for any assessment, diagnostic, medical, clinical and/or treatment advice, interventions or other assistance.
- This Agreement shall be governed by and interpreted in accordance with the laws of the State of New Jersey, without regard to conflict of laws principles.
- This Agreement does not create any agency, partnership, joint venture, employment, or independent contractor relationship between NeurAbilities Healthcare and/or the recipient and/or possessor.
- This Agreement shall be binding upon the recipient and/or possessor, and their successors and assignees. This Agreement is personal to, and may not be assigned or transferred by, the recipient and/or possessor.
- This Agreement shall continue in full force and effect indefinitely.



©NeurAbilities Healthcare 2020
