


Autism and ADHD...

What Every Orthodontist Should Know!

Heather Whitney Sesma, Ph.D., L.P.
Assistant Professor of Pediatrics
Division of Clinical Neuroscience

With new thinking, more is possible.





Objectives

- Review the core features of autism and ADHD
- Understand how autism/ADHD can affect a child's participation and cooperation during the orthodontist visit
- Understand how autism/ADHD can affect a child's adherence to self-care regimens at home


With new thinking, more is possible.



Age of Onset

<p><u>Autism</u></p> <ul style="list-style-type: none"> • Symptoms evident prior to age 3 	<p><u>ADHD</u></p> <ul style="list-style-type: none"> • Symptoms evident prior to age 7 
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

With new thinking, more is possible.



Autism Spectrum Disorders (ASD)

- Autism
- Asperger's Disorder
- Rett's Disorder
- Childhood Disintegrative Disorder
- Pervasive Developmental Disorder, NOS

With new thinking, more is possible.




ASD: Social Interaction

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000)

- Impaired use of nonverbal behaviors
- Failure to develop age-appropriate peer relationships
- Lack of spontaneous seeking to share enjoyment & interests
- Lack of social or emotional reciprocity

With new thinking, more is possible.



ASD: Communication

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000)

- Delay/absence of development of spoken language
- Impaired ability to initiate/sustain conversation
- Stereotyped, repetitive, or idiosyncratic use of language
- Lack of spontaneous pretend play or social imitative play

With new thinking, more is possible.



ASD: Restricted & Repetitive Behavior

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000)

- Abnormal preoccupation with stereotyped or restricted interest
- Inflexible adherence to nonfunctional routines or rituals
- Stereotyped, repetitive motor mannerisms
- Persistent preoccupation with parts of objects

With new thinking, more is possible.



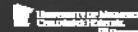
ASD Prevalence

2007 National Survey of Children's Health

Kogan et al. (2009). Pediatrics – published online 10/5/09

- 110 per 10,000 US children ages 3-17 had both a past and current ASD diagnosis – ~673,000
- Nearly 40% of children diagnosed in the past did not currently have ASD
- 4 times more common in boys than girls

With new thinking, more is possible.



ASD Impact on Visit Cooperation

Adapted from My Healthy Smile (2007). Fraser and Delta Dental

- Difficulty tolerating novel clinic environment
- Extreme sensitivity to noise, smell, taste, tactile sensation
- Difficulty communicating needs to provider
- Poor impulse control



With new thinking, more is possible.



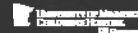
Improving Visit Cooperation

Adapted from My Healthy Smile (2007). Fraser and Delta Dental

- Allow child to be an active participant
- Use a picture schedule to give an overview of the visit
- Build trust by telling & showing child what you're going to do before you do it
- Go at child's pace
- Provide nonverbal way to say STOP



With new thinking, more is possible.



Improving Visit Cooperation

Adapted from My Healthy Smile (2007). Fraser and Delta Dental

- Break visits into small steps and set goals for each step
- Provide distraction
- Use motivating games and/or tangible reinforcement for completion of each step
- Use established calming strategies

With new thinking, more is possible.

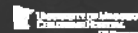


Social Stories to Improve Visit Cooperation

Adapted from My Healthy Smile (2007). Fraser and Delta Dental

- I am getting braces.
- First I need to open my mouth wide.
- Next the orthodontist will put my braces on using different tools.
- I might feel nervous.
- I can ask for a break by holding up my hand.
- When my braces are on, the orthodontist will say it's OK to close my mouth.
- I can feel proud of doing a good job.

With new thinking, more is possible.



ASD Impact on Oral Self-Care

- Aversion to oral stimulation
- Restless, hard to calm enough to engage in brushing teeth
- Fine motor delays may interfere with adequate brushing

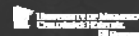
With new thinking, more is possible.



Improving ASD Oral Self-Care

- Graduated desensitization to stimulation of head, face, and mouth
- Use a timer to ensure adequate brushing time
- Electric toothbrush may reduce fine motor demands
- Take advantage of child's preference for routine

With new thinking, more is possible.



Improving ASD Oral Self-Care

- Try different locations & positions for brushing teeth
- Pair oral health regimen with reinforcing activities



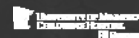
With new thinking, more is possible.



Autism Resources

- My Healthy Smile: Social scripts and tips for encouraging oral health (2007) – A Fraser Learning Product (www.fraser.org)

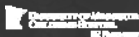
With new thinking, more is possible.



Attention-Deficit Hyperactivity Disorder (ADHD)

- Inattentive Type
- Hyperactive-Impulsive Type
- Combined Type
- ADHD, NOS

With new thinking, more is possible.

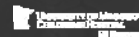


ADHD: Inattentive

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000)

- Inattention to detail
- Poor sustained attention
- Doesn't seem to listen
- Poor follow-through on instructions, chores, schoolwork
- Disorganized
- Avoids tasks requiring sustained mental effort
- Loses possessions
- Easily distracted
- Forgetful

With new thinking, more is possible.



ADHD: Hyperactive/Impulsive

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (2000)

- Fidgets with hand & feet; squirms in seat
- Often leaves seat in class
- Runs or climbs excessively
- Has trouble playing quietly
- Acts as if “driven by a motor”
- Talks excessively
- Blurts out answers
- Has difficulty awaiting his/her turn
- Interrupts or intrudes on others

With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

ADHD Prevalence:

2003 National Survey of Children’s Health

Visser, S. N., & Lesesne, C. A. (2005). Morbidity and Mortality Weekly Report, 54 (34), 842-847.

- ~ 7.8 % of U.S. children ages 4-17 have been diagnosed
 - 4.4 million
- Of these, 56% were taking medication for the disorder
- 2.5 times more common in boys than girls

With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

ADHD Impact on Visit Cooperation

- **Difficulties with both behavioral and emotional control...**
- Physical restlessness, inability to hold still
- Increased anxiety, negative reaction to physical discomfort



With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

Improving Visit Cooperation

- Request child take usual medication on the day of appointment
- Prepare child in advance for what to expect
- Plan for frequent breaks to maintain cooperation; consider shorter more frequent visits

With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

ADHD Impact on Oral Self-Care


- **Forgetful, easily distracted, poor follow-through, poor attention to detail...**
- Forget to perform self-care routines
- Or remember, but do a crummy job

With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

ADHD & Oral Hygiene

Blomqvist et al. (2007). European Journal of Oral Sciences, 115 (3), 186-191.

	13 year olds in Sweden	
	Control Group (N=79)	ADHD Group (N=21)
% brush teeth every am	75%	48%
% brush teeth every pm	82%	48%

With new thinking, more is possible.

University of Minnesota, Center for Children, Youth, & Families

Improving Adherence in ADHD

- Greater stress on oral hygiene during appointments
- Provide written instructions as well as verbal
- Increased involvement, supervision from caregiver
 - Verbal reminders, direct supervision
 - Visual reminders
 - Positive reinforcement for adherence

With new thinking, more is possible.



ADHD Resources

- Dawson & Guare (2009). Smart but scattered: The revolutionary “executive skills” approach to helping kids reach their potential. The Guilford Press.

With new thinking, more is possible.



Thank you!



With new thinking, more is possible.

