Update: Asperger’s Disorder

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Objectives

- Provide introduction to Aspergers disorder
- Medical update
- Forum for further discussion
Diagnosis of Asperger’s Disorder

- Hans Asperger 1944
  - 4 boys with difficulties relating to peers
  - Fritz V.
- Lorna Wing 1981
  - 34 cases aged 5 to 35 years with no imaginative play and speech differences
DSM-IV criteria for Asperger’s Disorder

- Impaired social interaction, with at least two of the below:
  - marked impairment in communication by nonverbal behaviors such as eye contact, facial expression, body posture
  - failure to develop appropriate peer relationships
  - lack of spontaneous sharing of enjoyments and interests with others
  - lack of social or emotional interaction
DSM-IV criteria for Asperger’s Disorder

- Restricted, repetitive, and stereotypical behaviors and interests with at least one of the below:
  - intense and focused preoccupation with unusual, restricted interests
  - rituals and routines which are inflexible and non-functional
  - motor mannerisms which are unusual and repetitive such as hand-flapping, dances, etc.
  - persistent preoccupation with parts of objects
DSM-IV criteria for Asperger’s Disorder

- significant impairment in important areas of function
- no overall delay in language
- no significant delay in cognitive development, (mental retardation), or in adaptive skills
- criteria are not met for autism or schizophrenia
Diagnostic problems

- How is Asperger’s Disorder different from autism?
  - continuum of social impairment
  - SRS scale
  - language
  - higher verbal IQ and increased fixated interests
  - May have onset after 3 years of age
DSM-5

- replaces categorical model with dimensional approach
- replaces Aspergers disorder and pervasive developmental disorder with autistic spectrum disorder
  - social/communications development
  - core feature with continuous distribution in population
  - Where’s the cut-off?
- fixated interests/repetitive behaviors set
DSM-5

- Social Communication Disorder
  - impaired pragmatic use of language
  - impaired social use of verbal and nonverbal communication
- is this mild autism?
Clinical features of Asperger’s Disorder

- impaired social interaction
- one-sided, less interactive
- awareness of non-verbal communication
- impaired group play
- poor ability to recognize and understand thoughts of others
Clinical features of Asperger’s Disorder

- impaired pragmatic language
  - formality in volume, tone, rhythm of speech (prosody)
  - verbosity and tangential (lectures)
- restricted and repetitive interests
  - found in 82% of cases with Aspergers
  - animals, science, technology
  - dominates social activities
Clinical features of Asperger’s Disorder

- resistance to change
  - schedules, habits, order
- sensory processing dysfunction
  - sound, smells, touch, heat
- impairments associated with social impairment — Hilton 2010
Comorbid conditions seen in Aspergers Disorder

- Depression
- Anxiety
- Seizures
- Sleeping Disorders
- ADHD
- oppositional defiant disorder

Overall rate of psychiatric conditions 74%
Asperger’s disorder and depression

- Up to 30% of children with ASD have depression
  - Changes in sleep and appetite
  - Changes in core autistic symptoms
  - Irritability or aggression
  - Self-injurious behavior, suicidal ideation
Asperger’s disorder and anxiety

- Seen in 43% to 84% of children with autism
- Anxiety symptoms may be more common in Asperger’s disorder
- Link to sensory hypersensitivity
Epidemiology

- Prevalence of Aspergers est. 2.6 per 10,000 as of 2003
- Estimated prevalence of 2.6% of autistic spectrum disorders in recent South Korea study, Kim 2011

Family risk of autism, Ozonoff 2011

- 19% chance of repeat child with autism
- 32% risk if two older siblings have autism

Male:female ratio 9:1
Etiologies of Aspergers Disorder

Genetics
- linkage studies looking at specific genes
- in utero activation for autism, Kang 2011
  - genetic/environmental interaction

Neuroimaging
- frontal lobe, temporal lobe, amygdala
- enlarged brains and increased neurons in prefrontal cortex in autism, Courchesne 2011
Etiologies of Asperger's Disorder

- In utero maternal autoimmune attack on fetal brain proteins, Van de Water 2011
  - 9% of mothers with ASD
  - Variant MET gene
- Mitochondrial dysfunction, Rossignol 2011
  - Seen in 5% of children with autism
  - Associated with seizures and GI dysfunction
- Reduced blood antioxidant capacity
Neuropsychological findings in Asperger’s disorder

- Poor theory of mind
- Executive dysfunction
- Poor central coherence
- Typically verbal IQ > performance IQ
How is the diagnosis made?

- clinical interview
- Autism Diagnostic Interview, ADI-R
- Autism Diagnostic Observation Schedule, ADOS
- Social Responsiveness Scale, SRS
- Parent scales include ASDS, CATS, ASQ
Psychological testing

- verbal, performance, and full-scale IQ
- measures of educational achievement
- measures of language
- measures of autistic symptoms
- measures of social functioning
- global child rating scales
Further evaluation

- Speech Pathology
  - language and vocabulary
  - pragmatic measures

- Occupational Therapy
  - sensory processing difficulties
  - motor tone, balance, posture
Treatment

- supportive and rehabilitative
- multi-disciplinary
- behavioral, social, educational, medical
Behavioral Therapies

- teach social rules
  - social skills groups
- teach adaptive behavior
- organizational strategies
- derived from ABA, cognitive behavioral therapy
Speech Therapy

- not just pronunciation and articulation
- pragmatics
- social aspects of verbal and nonverbal communication
Occupational Therapy

- sensory integration
- decreases irritability, improves flexibility
- improve tone, posture, core strength
- improve functional attention
Educational support

- IEP and 504 plan
- Awareness of psychological testing
- Step-wise teaching approaches
- Smaller classes with more 1:1 help
- Opportunities for social integration
- Increased time and prompting
Cognitive-behavioral treatment

- Studied for treatment of anxiety and depression in ASD
  - Group therapy
  - Social skills elements
  - Goal to reduce fixated interests
  - Parent training
Pharmacotherapy

- Core symptoms vs target symptoms
- Target symptoms
  - Aggression, self-injurious behaviors
  - Hyperactivity
  - Mood or anxiety symptoms
atypical antipsychotics

- risperidone (risperdal) and aripiprazole (abilify) are FDA approved for irritability and aggression in autistic disorders

- block dopamine

- associated with weight increases, lipid metabolism, sedation, movement abnormalities, hormonal changes

- require careful monitoring
psychostimulants

- FDA approved for treatment of Attention-Deficit/Hyperactivity Disorder, ADHD
- lower response rates and higher side effects in autistic spectrum
- multiple choices in short vs. long term effects but only two different chemicals
- monitor weight, growth, sleep
selective serotonin reuptake inhibitors, SSRI

- widely used for anxiety and depression in autistic children
- limited display of effectiveness
- high incidence of side effects, (King 2009)
  - activation, stereotypical movements, impulsiveness
other medications

- guanfacine (tenex, intuniv)
- atomoxetine (strattera)
- anticonvulsants
Parental support

Autism Speaks

parent support groups, FEAT

louisville.edu/education/kyautismtraining/resources/family-guide

Asperger’s Syndrome, Guide for Parents, Tony Attwood

A Parent’s Guide to Asperger’s Syndrome, Ozonoff
Social Skills Groups at University of Louisville Autism Center: STAR

- Eureka Group for those with ASD between ages of 12 to 18
  - includes focus on depression and anxiety
- Middle school and elementary ages
  - targets initiations, emotional regulation, problem solving
- Early Childhood
  - targets social interactions and parent training
- Intensive summer social skills groups
Research opportunities at University of Louisville

- rTMS
- Prism lenses
- Face recognition
Forum

Questions

What do you as teachers need?

Advocacy
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