

Introduction:
Reasons for Increased Vigilance

- ▶ Autism is more common than once thought
 - ▶ 70:10,000 in the general population
 - ▶ 1:50 6- to 17-year-olds per parent report in 2011/2012
 - ▶ vs. 1 in 86 in 2007
 - ▶ 7.8% of special education population in 2012/2013
 - ▶ vs. 1.5% of special education population in 2000/2001
 - ▶ But... only 1% of total student population (498,000/49,771,118) meet IDEA criteria (vs. the estimate 2% in the general student population)

NUMBER OF CHILDREN IDENTIFIED WITH ASD
1 in 68

Sources: Blumberg et al., 2013 ; Saracino, Noseworthy, Steiman, Reisinger, & Fombonne, 2010; U.S. Department of Education, 2013

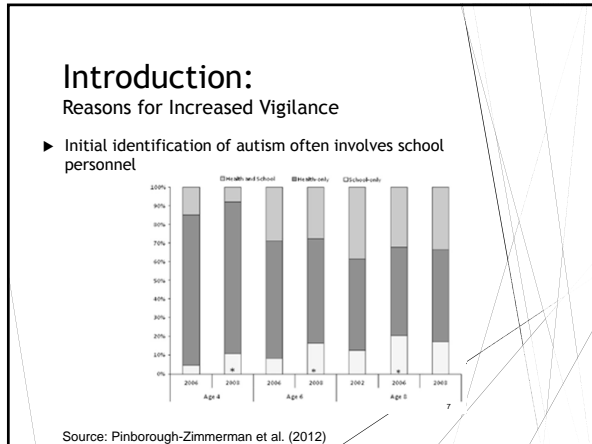
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Reasons for Increased Vigilance

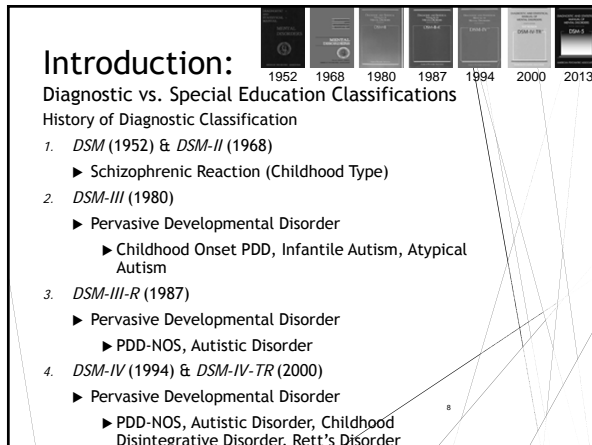
- ▶ Autism can be identified early in development,
and...
- ▶ Early intervention is an important determinant of the course of autism.

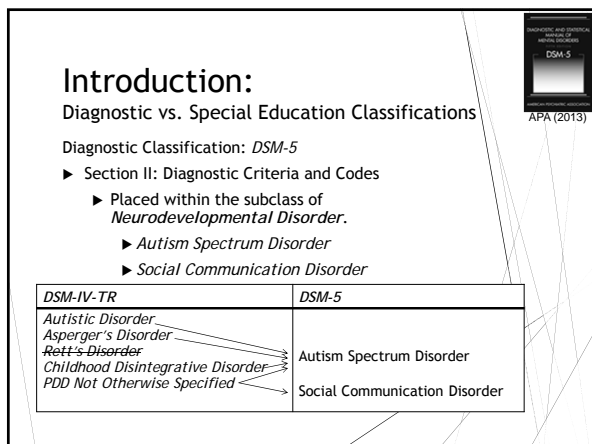
Introduction:
Reasons for Increased Vigilance

- ▶ Not all cases of autism will be identified before school entry
 - ▶ Mean age at identification
 - ▶ Autistic Disorder (24 studies) mean range
 - ▶ 2.666 to 7.4 years
 - ▶ Asperger's Disorder (16 studies) mean range
 - ▶ 3.75 to 11.2 years
 - ▶ PDD-NOS (13 studies) mean range
 - ▶ 3.333 to 9.25 years


Source: Daniels & Mandell (2014)








Introduction:
Diagnostic vs. Special Education Classifications



- ▶ *DSM-5* Revision Goals
 - ▶ Better recognize “essential shared features” of ASDs
 - ▶ Provide a clearer and simpler diagnosis
 - ▶ *DSM-IV-TR*
 - ▶ PDD Dx = 2,027 symptom combinations
 - ▶ *DSM-5*
 - ▶ ASD Dx = only 11 different ways to meet diagnosis (if all three of Criterion A's social communication and social interaction symptoms are required). ¹⁰

Source: APA (2000; 2013)

Introduction:
Diagnostic vs. Special Education Classifications




DSM-5 Diagnostic Criteria

- ▶ Autism Spectrum Disorder (ASD; pp. 50-59)
 - ▶ Persistent impairment in reciprocal social communication and social interaction; AND restricted, repetitive patterns of behavior, interests, or activities.
- ▶ Social (Pragmatic) Communication Disorder (SCD; pp. 47-49)
 - ▶ Problems with pragmatics, as manifested by deficits in understanding and following social rules of verbal and nonverbal communication. ¹¹

Source: APA (2013)

Introduction:
Diagnostic vs. Special Education Classifications




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A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative not exhaustive; see text):

1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
3. Deficits in developing, maintaining, and understanding relationships, ranging for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers. ¹²

Source: APA (2013)

Introduction:
Diagnostic vs. Special Education Classifications



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B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text)

1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
3. Highly restricted, fixated interests that are abnormal in intensity of focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper- or Hyporeactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

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Source: APA (2013)

Diagnostic Evaluation:
DSM-5 Diagnostic Criteria



pp. 50-51

C. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).


D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

E. These disturbances are not better explained by intellectual disability (intellectual development disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

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Source: APA (2013)

Introduction:
Diagnostic vs. Special Education Classifications



pp. 50-51

- ▶ Specifiers
 - ▶ Social communication severity level AND Restricted, repetitive behaviors severity level
 - ▶ Level 1, Level 2, Level 3.
 - ▶ With or without accompanying intellectual impairment
 - ▶ Separate estimates of verbal and nonverbal skill are necessary .
 - ▶ With or without accompanying language impairment
 - ▶ With impairment = "No intelligible speech (nonverbal)," "single words only," or "phrase speech"
 - ▶ Without impairment = "Speaks in full sentences" or "has fluent speech."
 - ▶ Receptive and expressive language skills should be considered separately


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Source: APA (2013)

Introduction:
Diagnostic vs. Special Education Classifications

- ▶ Specifiers (continued)
 - ▶ Associated with a known medical or genetic condition or environmental factors
 - ▶ Genetic condition (e.g., Rett syndrome, Fragile X syndrome, Down syndrome)
 - ▶ Medical condition (e.g., epilepsy),
 - ▶ Environmental factor (e.g., valproate, fetal alcohol syndrome, very low birth weight).
 - ▶ Associated with another neurodevelopmental, mental, or behavior disorder
 - ▶ e.g., attention-deficit/hyperactivity disorder; developmental coordination disorder; disruptive behavior, impulse-control, or conduct disorders; anxiety, depressive, or bipolar disorders; tics or Tourette's disorder; self-injury; feeding, elimination, or sleep disorders.
 - ▶ With catatonia

Source: APA (2013)




pp. 50-51

Introduction:
Diagnostic vs. Special Education Classifications

- ▶ Social (Pragmatic) Communication Disorder (SCD)
 - A. Persistent difficulties in the social use of verbal and nonverbal communication.
 - B. Deficits result in functional limitations in effective communication, social participation, social relationships, academic achievement, or occupational performance, individually or in combination.
 - C. Onset of symptoms is in the early developmental period.
 - D. Symptoms not attributable to another medical or neurological condition or to low abilities in the domains of word structure and grammar, and are not better explained by autism spectrum disorder, intellectual disability, global developmental delay, or another mental disorder

Source: APA (2013)




pp. 47-48

Introduction:
Diagnostic vs. Special Education Classifications


- ▶ Will *DSM-5* change the prevalence of Autism?
 - ▶ Yes, a 17% decrease has been noted in an epidemiologic sample
 - ▶ 2.64% *DSM-IV* PDD
 - ▶ 2.20% *DSM-5* ASD
 - ▶ *DSM-IV* to *DSM-5*
 - ▶ Autistic Disorder, 99% of sample ASD; 1% SCD
 - ▶ Asperger Disorder, 92% of sample ASD; 8% SCD
 - ▶ PDD-NOS, 63% of sample ASD; 32% SCD
 - ▶ But, most individuals with a prior *DSM-IV* PDD Dx meet *DSM-5* criteria for ASD or SCD

Source: Kim et al. (2014). See also Maenner et al. (2014).



pp. 47-48


Introduction:
Diagnostic vs. Special Education Classifications



- ▶ Discussion
 - ▶ Is *DSM-5* relevant to school psychologists and special education classifications?

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Introduction:
Diagnostic vs. Special Education Classifications




- ▶ Adjudicative decision makers have NEVER even suggested the *DSM* is a “controlling authority.”
- ▶ Eligibility is (and always has been) driven by state and federal regulations.
- ▶ In other words, a *DSM-5* diagnosis of ASD or SCD will not automatically result in special education services (or even 504 accommodations).

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Sources: Brock & Hart (2013, Sept; 2013, Oct); Faggi et al. (2003); Shriver et al. (1999)

Introduction:
Diagnostic vs. Special Education Classifications



- ▶ However, adjudicative decision makers sometimes consider a *DSM* diagnosis as relevant.
- ▶ If a *DSM-5* diagnosis is available, it **MUST** be considered
- ▶ Furthermore, *DSM-5* may prove helpful to IEP teams.
 - ▶ *DSM-5* may result in the ASD population being more homogeneous.
 - ▶ The addition of hyper- or hyporeactivity criteria may help identify the need for behavior support.
 - ▶ Severity levels and specifiers (e.g., with or without ID) may assist in program planning

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Source: Brock & Hart (2013, Sept; 2013, Oct)

Introduction:
Diagnostic vs. Special Education Classifications

Autism Eligibility Criteria
IDEA 34 Code of Federal Regulations §300.7(c)(1)

Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's education performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotypical movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

(i) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section.

(ii) A child who manifest the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.

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Introduction:
Diagnostic vs. Special Education Classifications

► Special Education Practice recommendations

1. Ensure a thorough evaluation from professionals who have knowledge of autism.
2. Design IEPs for students with autism to meet their unique needs.
3. Provide appropriate interventions to address any impeding behaviors.
4. Work collaboratively with family members and consider parents' needs for training and practical help.

Source: University of Washington (2005);
<http://wea.uwctds.washington.edu/Word%20Bulletins/Bulletin2.doc>

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Introduction:
Diagnostic vs. Special Education Classifications

► Practice recommendations

5. Design IEPs that meet the standards of FAPE and reassess when a student makes little or no progress..
6. Be sure that the professionals evaluating students are qualified.
7. *Under Section 504, it is required that educators working with students with disabilities must be trained in the area of the student's disability.*

Source: University of Washington (2005);
<http://wea.uwctds.washington.edu/Word%20Bulletins/Bulletin2.doc>

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Introduction:
Multidisciplinary Assessment Team Member Responsibilities

- ▶ Autism Case Finding
 - ▶ Must be vigilant for signs of autism among students served.
 - ▶ Includes training general educators to identify autism risk factors and warning signs.
- ▶ Which team member (or members) are responsible for autism case finding?

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Introduction:
Multidisciplinary Assessment Team Member Responsibilities

- ▶ Autism Screening
 - ▶ Must be prepared to participate in behavioral screening of students with autism risk factors and/or warning signs.
 - ▶ Are able to conduct screenings to determine the need for "Autism" eligibility consideration.
 - ▶ Must be able to distinguish between screening, diagnosis, and special education eligibility.
- ▶ Which team member (or members) are responsible for autism screening?

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Introduction:
Multidisciplinary Assessment Team Member Responsibilities

- ▶ Autism Psychiatric Diagnosis
 - ▶ Must have appropriate clinical training and supervision to make a *DSM-5* ASD diagnosis.
 - ▶ *DSM-5* diagnoses are not required for special education eligibility (and often not appropriately made multidisciplinary team members).
- ▶ Which team member (or members) are responsible for ASD diagnosis?

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Introduction:
Multidisciplinary Assessment Team Member Responsibilities

- ▶ Autism Special Education Eligibility Determinations
 - ▶ Must be able to conduct special education evaluations of students with autism.
 - ▶ Must be able to help develop IEP goals/objectives, which determine special education placement and related services.
 - ▶ Must be knowledgeable of the accommodations necessary to obtain valid test results when working with the student with autism.
- ▶ Which team member (or members) are responsible for eligibility determinations?

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Introduction:
Epidemiology (General Population)

BOYS ▶ x5
GIRLS ▶ x1

PREVALENCE OF AUTISM SPECTRUM DISORDERS AMONG CHILDREN BY GENDER

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Introduction:
Epidemiology (General Population)

Autism Occurrence Statistics

1 in 68
1 in 88
1 in 110
1 in 125
1 in 150
1 in 500
1 in 1,000
1 in 10,000

1975 1995 1999 2000 2002 2004 2006 2008 2014

"...the burden of proof is upon anybody who feels that there is NOT a real increase here in the number of kids affected."

Dr. Thomas Insel, Director of National Institute of Mental Health and Head of Interagency Autism Coordinating Committee (IACC)

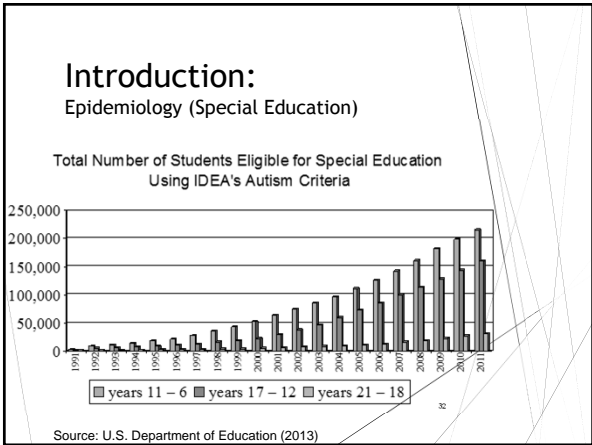
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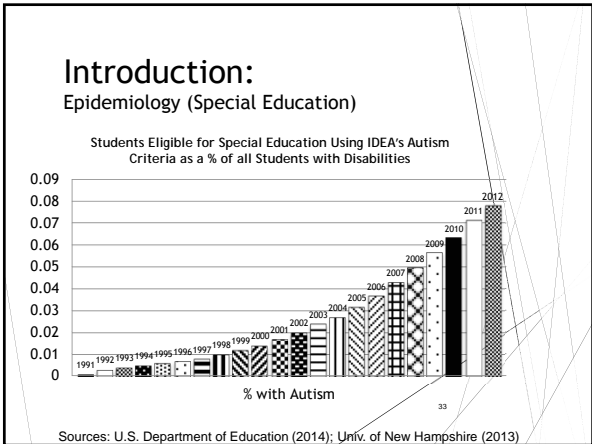
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Epidemiology (General Population)

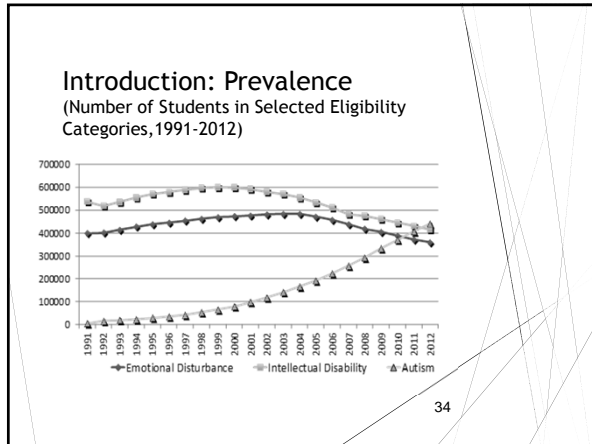
Explanations for Changing ASD Rates

- ▶ Changes in diagnostic criteria.
- ▶ Heightened public awareness of autism.
- ▶ Increased willingness and ability to diagnose autism.
- ▶ Availability of resources for children with autism.
- ▶ Yet to be identified environmental factors.

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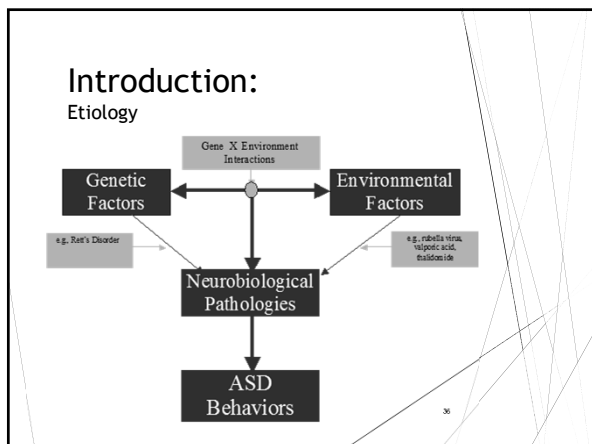


Introduction: Epidemiology (Special Education)

- Explanations for Changing Rates in Special Education
 - IEP teams have become better able to identify students with autism.
 - Autism is more acceptable in today's schools than is the diagnosis of intellectual disability (or what was previously referred to as mental retardation).
 - The intensive early intervention services often made available to students with autism are not always offered to the child whose primary eligibility classification is intellectual disability.

Source: Brock (2006)

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Seminar Outline

- ▶ Introduction
- ▶ Case Finding
 - ▶ Looking
 - ▶ Listening
 - ▶ Questioning
- ▶ Screening
- ▶ Diagnostic Evaluation (Is Autism Present?)
- ▶ Special Education Eligibility Evaluation (IEP Development)

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Case Finding



- ▶ Looking
 - ▶ for risk factors and warning signs of autism.
- ▶ Listening
 - ▶ For concerns about atypical development consistent with autism's risk factors and warning signs.
- ▶ Questioning
 - ▶ caregivers about developmental challenges consistent with autism's risk factors and warning.

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Case Finding: Looking for Risk Factors

- ▶ Known Risk Factors
 - ▶ High Risk
 - ▶ Having an older sibling with autism.
 - ▶ Moderate Risk
 - ▶ The diagnosis of tuberous sclerosis, fragile X, or epilepsy.
 - ▶ A family history of autism or autistic-like behaviors.

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Case Finding:
Looking for Risk Factors

- ▶ Developmental Risk Factors
 - ▶ History includes...
 - No big smiles or other joyful expressions by 6 months.^b
 - No back-and-forth sharing of sounds, smiles, or facial expressions by 9 months.^b
 - No back-and-forth gestures, such as pointing, showing, reaching or waving bye-bye by 12 months.^{a,b}
 - No babbling at 12 months.^{a, b}
 - No single words at 16 months.^{a, b}

Sources: ^aFilipek et al., 1999; ^bGreenspan, 1999; and ^cOzonoff, 2003.

Case Finding:
Looking for Risk Factors

- ▶ Developmental Risk Factors
 - ▶ History includes ...
 - No 2-word spontaneous (noncholalic) phrases by 24 months.^{a, b}
 - Failure to attend to human voice by 24 months.^c
 - Failure to look at face and eyes of others by 24 months.^c
 - Failure to orient to name by 24 months.^c
 - Failure to demonstrate interest in other children by 24 months.^c
 - Failure to imitate by 24 months.^c
 - Any loss of any language or social skill at any age.^{a, b, d}

Sources: ^aFilipek et al., 1999; ^bGreenspan, 1999; ^cOzonoff, 2003; ^dBarger et al., 2013

Case Finding:
Looking for Social Communication Warning Signs

- ▶ School-Age Children (preschool through upper grades)
 - ▶ Poor at initiating/sustaining activities/friendships
 - ▶ Play/free-time more isolated/less interactive
 - ▶ Unaware of social conventions or codes
 - ▶ Unusual tone of voice or speech
 - ▶ Overly literal interpretation of comments
 - ▶ Atypical conversations
 - ▶ Poor paraverbal communication skills

Sources: Attwood (1998); Myles, Bock & Simpson (2000)

Case Finding:
Looking for Restrictive/Repetitive Behavioral Warning Signs

- ▶ School-Age Children (preschool through upper grades)
 - ▶ Excessive anxiety, fears, or depression
 - ▶ Atypical interests and behaviors compared to peers
 - ▶ Play/free-time is rigid and/or repetitive
 - ▶ Excessive fascination/perseveration with a particular topic, interest, or object
 - ▶ Unduly upset by changes in routines or expectations
 - ▶ Tendency to flap or rock when excited or distressed
 - ▶ Unusual sensory responses
 - ▶ History of behavioral concerns

Attwood (1998); Myles, Bock & Simpson (2000)

Case Finding:
Looking for Atypical Development

- ▶ Staff Development
 - ▶ SELPA efforts (typically making use of multidisciplinary team members) to educate teachers (and school site SSTs) about the risk factors and warning signs of autism would also be consistent with Child Find.
 - ▶ Giving general education teachers (and SSTs) the information they need to look for autism will facilitate case finding efforts.

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Case Finding:
Listening to Caregivers

- ▶ Referring Concerns That Signal the Need for Autism Screening
 - ▶ Communication Concerns
 - ▶ Does not respond to his/her name
 - ▶ Cannot tell me what s/he wants
 - ▶ Does not follow directions
 - ▶ Appears deaf at times
 - ▶ Seems to hear sometimes but not others
 - ▶ Does not point or wave bye-bye

Filipek et al. (1999)

Case Finding:
Listening to Caregivers

- ▶ Referring Concerns That Signal the Need for Autism Screening
 - ▶ Social Concerns
 - ▶ Does not smile socially
 - ▶ Seems to prefer to play alone
 - ▶ Is very independent
 - ▶ Has poor eye contact
 - ▶ Is in his/her own world
 - ▶ Tunes us out
 - ▶ Is not interested in other children

Filipek et al. (1999) 46

Case Finding:
Listening to Caregivers

- ▶ Referring Concerns That Signal the Need for Autism Screening
 - ▶ Behavioral concerns
 - ▶ Tantrums
 - ▶ Is hyperactive or uncooperative/oppositional
 - ▶ Doesn't know how to play with toys
 - ▶ Does the same thing over and over
 - ▶ Toe walks

Filipek et al. (1999) 47

Case Finding:
Listening to Caregivers

- ▶ Referring Concerns That Signal the Need for Autism Screening
 - ▶ Behavioral concerns (continued)
 - ▶ Has unusual attachments to toys (e.g., always is holding a certain object)
 - ▶ Lines things up
 - ▶ Is oversensitive to certain textures or sounds
 - ▶ Has odd finger and/or body movement patterns

Filipek et al. (1999) 48

Case Finding:
Questioning Caregivers

- ▶ Asking about socialization that probe for issues that would signal the need for an autism screening.
 - ▶ “Does s/he ...” or “Is there ...”
 - ▶ cuddle like other children?
 - ▶ look at you when you are talking or playing?
 - ▶ smile in response to a smile from others?
 - ▶ engage in reciprocal, back-and-forth play?
 - ▶ play simple imitation games, such as pat-a-cake or peek-a-boo?
 - ▶ show interest in other children?

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Filipek et al. (1999)

Case Finding:
Questioning Caregivers

- ▶ Asking about communication that probe for issues that would signal the need for an autism screening.
 - ▶ “Does s/he ...” or “Is there ...”
 - ▶ point with his/her finger?
 - ▶ gesture? Nod yes and no?
 - ▶ direct your attention by holding up objects for you to see?
 - ▶ anything odd about his/her speech?
 - ▶ show things to people?

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Filipek et al. (1999)

Case Finding:
Questioning Caregivers

- ▶ Asking about communication that probe for issues that would signal the need for an autism screening (continued).
 - ▶ “Does s/he ...” or “Is there ...”
 - ▶ lead an adult by the hand?
 - ▶ give inconsistent response to his/her name? ... to commands?
 - ▶ use rote, repetitive, or echolalic speech?
 - ▶ memorize strings of words or scripts?

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Filipek et al. (1999)

Case Finding:

Questioning Caregivers


- ▶ Asking about behavior that probe for issues that would signal the need for an autism screening.
 - ▶ “Does s/he ...” or “Is there ...”
 - ▶ have repetitive, stereotyped, or odd motor behavior?
 - ▶ have preoccupations or a narrow range of interests?
 - ▶ attend more to parts of objects (e.g., the wheels of a toy car)?
 - ▶ have limited or absent pretend play?
 - ▶ imitate other people’s actions?
 - ▶ play with toys in the same exact way each time?
 - ▶ strongly attached to a specific unusual object(s)?

Filipek et al. (1999)

Seminar Outline

- ▶ Introduction
- ▶ Case Finding
- ▶ Screening
 - ▶ Behavioral (Infants & Preschoolers)
 - ▶ Behavioral (School Age Youth)
- ▶ Diagnostic Evaluation (Is Autism Present?)
- ▶ Special Education Eligibility Evaluation (IEP Development)

Screening



- ▶ Screening is designed to help determine the need for additional assessment.
 - ▶ Typically a part of the special education eligibility process as the multidisciplinary team ensures that the student is assessed in ALL areas of suspected disability.
 - ▶ School psychologists and Speech/Language Pathologists are typically the most appropriate team members to conduct (and recognize the need for) such screening.

Screening

- ▶ Typically conducted as a part of the multidisciplinary evaluation of the student presenting with autism risk factors/warning signs.
 - ▶ Which makes autism a “suspected disability.”
- ▶ Assessment plans indicating evaluation will include examination of “social and emotional development” and “language functioning,” and specify either the school psychologist or speech/language pathologist as an assessor, have the permission needed to conduct such screening.
- ▶ Can screenings be conducted outside of a special education eligibility assessment?

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Screening

- ▶ School psychologists are exceptionally well qualified to conduct the behavioral screening of students suspected to have autism.
 - ▶ Given the emphasis in both their training and practice on the use of social/emotional development screening tools
- ▶ Several screening tools are available
- ▶ Initially, most of these tools focused on the identification of autism among infants and preschoolers.
- ▶ Recently screening tools useful for the identification of school aged children who have autism have been developed.

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Screening: Infants & Preschoolers

Measure	Sensitivity	Specificity
CHAT	.18 - .38	.98
M-CHAT	.87	.99
CHAT 23	.84	.85
PDDST-II: Stage 1	.92	.91

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Barton et al. (2012)

Screening:
School Aged Youth

- ▶ *Autism Spectrum Screening Questionnaire (ASSQ)*
 - ▶ The 27 items rated on a 3-point scale.
 - ▶ Total score range from 0 to 54.
 - ▶ Items address social interaction, communication, restricted/repetitive behavior, and motor clumsiness and other associated symptoms.
 - ▶ The initial *ASSQ* study included 1,401 7- to 16-year-olds.
 - ▶ Sample mean was 0.7 (*SD* 2.6).
 - ▶ Asperger mean was 26.2 (*SD* 10.3).

Screening:
School Aged Youth

- ▶ *Autism Spectrum Screening Questionnaire (ASSQ)*
 - ▶ Two separate sets of cutoff scores are suggested.
 - ▶ Parents, 13; Teachers, 11: = socially impaired children
 - ▶ Low risk of false negatives (especially for milder cases of autism).
 - ▶ High rate of false positives (23% for parents and 42% for teachers).
 - ▶ Not unusual for children with other disorders (e.g., disruptive behavior disorders) to obtain *ASSQ* scores at this level.
 - ▶ Used to suggest that a referral for an ASD diagnostic assessment, while not immediately indicated, should not be ruled out.

Screening:
School Aged Youth

- ▶ *Autism Spectrum Screening Questionnaire (ASSQ)*
 - ▶ Two separate sets of cutoff scores are suggested.
 - ▶ Parents, 19; Teachers, 22: = immediate ASD diagnostic referral.
 - ▶ False positive rate for parents and teachers of 10% and 9% respectively.
 - ▶ The chances are low that the student who attains this level of *ASSQ* cutoff scores will not have an autism.
 - ▶ Increases the risk of false negatives.

Screening: School Aged Youth

Different parent and teacher ASSQ cutoff scores with true positive rate (% of children with an ASD who were rated at a given score), false positive rate (% of children without an ASD who were rated at a given score), and the likelihood ratio a given score predicting an ASD.

Cutoff Score	True Positive Rate (%)	False Positive Rate (%)	Likelihood Ratio
Parent			
7	95	44	2.2
13	91	23	3.8
15	76	19	3.9
16	71	16	4.5
17	67	13	5.3
19	62	10	5.5
20	48	8	6.1
22	42	3	12.6
Teacher			
9	95	45	2.1
11	90	42	2.2
12	85	37	2.3
15	75	27	2.8
22	30	9	7.5
24	65	7	9.3

Screening: School Aged Youth

► *Autism Spectrum Screening Questionnaire (ASSQ)*

► Available in

► Ehlers, S., Gillberg, G., & Wing, L. (1999). A screening questionnaire for Asperger syndrome and other high functioning autism spectrum disorders in school age children. *Journal of Autism and Developmental Disorders*, 29, 129-141.

► Retrieved from [http://scatn.med.sc.edu/screening/Ehlers-ASSQ-1999\[1\].pdf](http://scatn.med.sc.edu/screening/Ehlers-ASSQ-1999[1].pdf)

Screening: School Aged Youth

► *Childhood Asperger Syndrome Test (CAST)*

► Scott, Baron-Cohen, Bolton, & Brayne (2002).

- A screening for mainstream primary grade (ages 4 through 11 years) children.
- Has 37 items, with 31 key items contributing to the child's total score.
- The 6 control items assess general development.
- With a total possible score of 31, a cut off score of 15 "NO" responses was found to correctly identify 87.5 (7 out of 8) of the cases of autistic spectrum disorders.

Screening:
School Aged Youth


The *CAST* is available at
http://www.autismresearchcentre.com/arc_tests

This website also contains links to a number of other screening tools (a very helpful resource!!!).

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Screening:
School Aged Youth

► *Social Communication Questionnaire (SCQ)*



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Screening:
School Aged Youth

► *Social Communication Questionnaire (SCQ)*

- Two forms of the *SCQ*: a *Lifetime* and a *Current* form.
 - *Current* ask questions about the child's behavior in the past 3-months, and is suggested to provide data helpful in understanding a child's "everyday living experiences and evaluating treatment and educational plans"
 - *Lifetime* ask questions about the child's entire developmental history and provides data useful in determining if there is need for a diagnostic assessment.
- Consists of 40 Yes/No questions asked of the parent.
- The first item of this questionnaire documents the child's ability to speak and is used to determine which items will be used in calculating the total score.

Screening: School Aged Youth

- ▶ *Social Communication Questionnaire (SCQ)*
 - ▶ An "AutoScore" protocol converts the parents' Yes/No responses to scores of 1 or 0.
 - ▶ The mean SCQ score of children with autism was 24.2, whereas the general population mean was 5.2.
 - ▶ The threshold reflecting the need for diagnostic assessment is 15.
 - ▶ A slightly lower threshold might be appropriate if other risk factors (e.g., the child being screened is the sibling of a person with ASD) are present.

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Screening: School Aged Youth

Measure	Sensitivity	Specificity
AASQ	.91	.77
CAST	.100	.97
SCQ-Current (Teacher)	.60	.95
SCQ-Lifetime (Parent)	.75	.99

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Posserud et al (2009); Schanding et al. (2012); Williams et al (2005)

Seminar Outline

- ▶ Introduction
- ▶ Case Finding
- ▶ Screening
- ▶ Diagnostic Evaluation (Is Autism Present?)
 - ▶ Differential Diagnosis
 - ▶ Health & Developmental History
 - ▶ Indirect Assessment
 - ▶ Direct Assessment
- ▶ Special Education Eligibility Evaluation (IEP Development)

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Diagnostic Evaluation:
Differential Diagnosis



pp. 57-58

<p>Rett Syndrome (Could be an "Associated with a known ... genetic condition ..." specifier)</p>	<ul style="list-style-type: none"> • Affects girls • Head growth deceleration • Loss of fine motor skill • Awkward gait and trunk movement • Mutations in the MECP2 gene • After age 4-years most show improvement in social communication skills
<p>Selective Mutism</p>	<ul style="list-style-type: none"> • Language development not always disturbed • Social reciprocity not impaired • Often have normal language in certain situations or settings ⁷⁰ • No restricted patterns of behavior


Diagnostic Evaluation:
Differential Diagnosis



pp. 57-58

<p>Language Disorders and SCD</p>	<ul style="list-style-type: none"> • No abnormal nonverbal communication • No restricted patterns of behavior • SCD when social-communication and social interaction difficulties are present
<p>Intellectual Disability</p>	<ul style="list-style-type: none"> • Relative to developmental level, social interactions are not severely impaired • No restricted patterns of behavior
<p>Stereotypic Movement Disorder</p>	<ul style="list-style-type: none"> • Normal social communication and social interaction • A comorbid condition when stereotypies cause self-injury ⁷¹

Diagnostic Evaluation:
Differential Diagnosis



pp. 57-58

<p>ADHD</p>	<ul style="list-style-type: none"> • Distractible inattention related to external (not internal) stimuli • Deterioration in attention and vigilance over time • Comorbid when inattention/hyperactivity exceed that typical of developmental peers
<p>Schizophrenia</p>	<ul style="list-style-type: none"> • Years of normal/near normal development • Differentiate from the prodromal state, which may include social impairment and atypical interests/beliefs • Symptoms of hallucinations/delusions

Diagnostic Evaluation:
Health & Developmental History

Health History

- ▶ Prenatal and perinatal risk factors
 - ▶ Greater maternal age
 - ▶ Maternal infections
 - ▶ Measles, Mumps, & Rubella
 - ▶ Influenza
 - ▶ Cytomegalovirus
 - ▶ Herpes, Syphilis, HIV
 - ▶ Drug exposure
 - ▶ Obstetric suboptimality

Available at:
http://www.csus.edu/indiv/b/brocks/Courses/EDS%20243/student_materials.htm

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Diagnostic Evaluation:
Health & Developmental History

Health History

- ▶ Postnatal risk factors
 - ▶ Infection
 - ▶ Case studies have documented sudden onset of ASD symptoms in older children after herpes encephalitis.
 - ▶ Infections that can result in secondary hydrocephalus, such as meningitis, have also been implicated in the etiology of ASD.
 - ▶ Common viral illnesses in the first 18 months of life (e.g., mumps, chickenpox, fever of unknown origin, and ear infection) have been associated with ASD.
 - ▶ Chemical exposure?
 - ▶ MMR?

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Diagnostic Evaluation:
Health & Developmental History

- ▶ Health History
 - ▶ Vision and hearing
 - ▶ Chronic ear infections (and tube placement)
 - ▶ Immune dysfunction (e.g., frequent infections)
 - ▶ Autoimmune disorders (e.g., thyroid problems, arthritis, rashes)
 - ▶ Allergy history (e.g., to foods or environmental triggers)
 - ▶ Gastrointestinal symptoms (e.g., diarrhea, constipation, bloating, abdominal pain)

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Diagnostic Evaluation:
Health & Developmental History

- ▶ Diagnostic History
 - ▶ ASD is sometimes observed in association other neurological or general medical conditions.
 - ▶ Intellectual Disability (up to 50%)
 - ▶ Epilepsy (3-30%)
 - ▶ May develop in adolescence
 - ▶ EEG abnormalities common even in the absence of seizures
 - ▶ Genetic Disorders
 - ▶ 10-20% of ASD have a neurodevelopmental genetic syndrome
 - ▶ Tuberous Sclerosis (found in 2-4% of children with ASD)
 - ▶ Fragile X Syndrome (found in 2-8% of children with ASD)

Diagnostic Evaluation:
Health & Developmental History

- ▶ Developmental History
 - ▶ Language development
 - ▶ Concerns about a hearing loss
 - ▶ Social development
 - ▶ Atypical play
 - ▶ Lack of social interest
 - ▶ Regression

Diagnostic Evaluation:
Health & Developmental History

- ▶ Family History
 - ▶ Epilepsy
 - ▶ Intellectual Disability
- ▶ Genetic Conditions
 - ▶ Tuberous Sclerosis Complex
 - ▶ Fragile X Syndrome
 - ▶ Schizophrenia
 - ▶ Anxiety
 - ▶ Depression
 - ▶ Bipolar disorder
- ▶ Other genetic condition or chromosomal abnormality

Diagnostic Evaluation


- ▶ Indirect Assessment
 - ▶ Interviews and Questionnaires/Rating Scales
 - ▶ Easier to obtain
 - ▶ Reflect behavior across settings
 - ▶ Subject to interviewee/rater bias
- ▶ Direct Assessment
 - ▶ Behavioral Observations
 - ▶ Can be more difficult and time consuming to obtain
 - ▶ Reflect behavior within limited settings/times
 - ▶ Not subject to interviewee/rater bias

Diagnostic Evaluation

- ▶ Indirect ASD Interview/Rating Scale Measures
 - ▶ Gilliam Autism Rating Scale-3 (GARS)
 - ▶ Autism Diagnostic Interview-Revised (ADI-R)
- ▶ Direct ASD Observational Measures:
 - ▶ Childhood Autism Rating Scales-2 (CARS)
 - ▶ Autism Diagnostic Observation Schedule-2 (ADOS)

Diagnostic Evaluation: Indirect Assessment

- ▶ The *Gilliam Autism Rating Scale 3rd ed.*
- ▶ Gilliam, J. E. (2014). *Gilliam autism rating scale* (3rd ed.). Austin, TX: Pro-Ed.



Diagnostic Evaluation:
Indirect Assessment


- ▶ The *Gilliam Autism Rating Scale, 3rd ed. (GARS-3)*
 - ▶ Ages 3 to 22 years
 - ▶ 5 to 10 minutes administration time
 - ▶ Based on *DSM-5* criteria
 - ▶ 56 items to generate a “probability of autism” standard score
 - ▶ 6 Subscales
 - ▶ Restrictive/Repetitive Behaviors, Social Interaction, Social Communication, Emotional Responses, Cognitive Style, Maladaptive Speech
 - ▶ Includes “Instructional Objectives for Children Who Have Autism” to use GARS-3 for developing goals.

Diagnostic Evaluation:
Indirect Assessment

- ▶ The *Gilliam Autism Rating Scale, 3rd ed. (GARS-3)*
 - ▶ Reliability
 - ▶ Internal Consistency for subscales $\geq .85$
 - ▶ Internal Consistency for Autism Indexes $\geq .93$
 - ▶ Test-Retest for subscales $\geq .80$
 - ▶ Test-Retest for Autism Indexes $\geq .90$
 - ▶ Inter-rater for subscale $\geq .80$
 - ▶ Inter-rater for Autism Indexes $\geq .84$
 - ▶ Validity
 - ▶ Sensitivity = .97
 - ▶ Specificity = .97

Diagnostic Evaluation:
Indirect Assessment

- ▶ The *Autism Diagnostic Interview-Revised (ADI-R)*
 - ▶ Rutter, M., Le Couteur, A., & Lord, C. (2003). *Autism diagnostic interview-revised (ADI-R)*. Los Angeles, CA: Western Psychological Services.



Diagnostic Evaluation:
Indirect Assessment


- ▶ The *Autism Diagnostic Interview-Revised (ADI-R)*
 - ▶ Semi-structured interview
 - ▶ Designed to elicit the information needed to diagnose autism.
 - ▶ Primary focus is on the three core domains of autism (i.e., language/communication; reciprocal social interactions; and restricted, repetitive, and stereotyped behaviors and interests).
 - ▶ Requires a trained interviewer and caregiver familiar with both the developmental history and the current behavior of the child.
 - ▶ The individual being assessed must have a developmental level of at least two years.

Diagnostic Evaluation:
Indirect Assessment

- ▶ The *Autism Diagnostic Interview-Revised (ADI-R)*
 - ▶ The 93 items that comprise this measure takes approximately 90 to 150 minutes to administer.
 - ▶ Solid psychometric properties.
 - ▶ Works very well for differentiation of ASD from nonautistic developmental disorders in clinically referred groups, provided that the mental age is above 2 years.
 - ▶ False positives very rare,
 - ▶ Reported to work well for the identification of Asperger's Disorder.
 - ▶ However, it may not do so as well among children under 4 years of age.
 - ▶ According to Klinger and Renner (2000): "The diagnostic interview that yields the most reliable and valid diagnosis of autism is the *ADI-R*" (p. 481).

Diagnostic Evaluation:
Direct Assessment

- ▶ The *Autism Diagnostic Observation Schedule, Second Edition (ADOS-2)*
 - ▶ Lord, C., Rutter, M., Di Lavore, P. C., Risis, S., Gotham, K., & Bishop, S. I. (2013). *Autism diagnostic observation schedule* (2nd ed.). Los Angeles, CA: Western Psychological Services.



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http://portal.wpspublish.com/portal/page?_pageid=53_288914&_dad=portal&_schema=PORTAL

Diagnostic Evaluation:
Direct Assessment

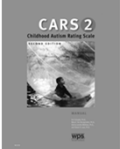
- ▶ ADOS-2 is a standardized, semi-structured, interactive play assessment of social behavior.
 - ▶ Uses "planned social occasions" to facilitate observation of the social, communication, and play or imaginative use of material behaviors related to the diagnosis of ASD.
- ▶ Consists of five modules.
 - ▶ Toddler Module for children between 12 - 30 months who do not consistently use phrase speech (NEW)
 - ▶ Module 1 for children 31 months and older who do not consistently use phrase speech
 - ▶ Module 2 for children of any age who use phrase speech but are not verbally fluent
 - ▶ Module 3 for verbally fluent children and youth adolescents
 - ▶ Module 4 for verbally fluent older adolescents and adults

Diagnostic Evaluation:
Direct Assessment

- ▶ ADOS-2 administration requires 40 to 60 minutes.
- ▶ Because its primary goal is accurate diagnosis, it may not be a good measure of treatment effectiveness or developmental growth.
- ▶ Psychometric data indicates substantial interrater and test-retest reliability for individual items, and excellent interrater reliability within domains and internal consistency.
- ▶ Mean test scores were found to consistently differentiate ASD and non-ASD groups.

Diagnostic Evaluation:
Direct Assessment

- ▶ The *Childhood Autism Rating Scale, 2nd ed.* (CARS2)
 - ▶ Schopler, E., Van Bourgondien, M. E., Wellman, G. J., & Love, S. R. (2010). *The Childhood Autism Rating Scale (CARS)*. Los Angeles, CA: Western Psychological Services.



Diagnostic Evaluation:
Direct Assessment

- ▶ Consists of two 15-item rating scales completed by the practitioner and a Parent/Caregiver Questionnaire.
 - ▶ The Standard Version Rating Booklet (CARS2-ST) used with children younger than 6 years of age and those with communication difficulties or below-average cognitive ability. 15 items duplicate those on the original CARS.
 - ▶ The High-Functioning Version Rating Booklet (CARS2-HF) is used for assessing verbally fluent children and youth, 6 years of age and older, with average or above IQ. 15 items reflect characteristics of higher functioning autism.
 - ▶ The Questionnaire for Parents or Caregivers (CARS2-QPC) is an unscored questionnaire designed to obtain pertinent developmental information from parents or caregivers.

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Seminar Outline

- ▶ Introduction
- ▶ Case Finding
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- ▶ Diagnostic Evaluation (Is Autism Present?)
- ▶ Special Education Eligibility Evaluation (IEP Development)
 - ▶ Testing Accommodations
 - ▶ Behavioral Observations
 - ▶ Specific Tests
 - ▶ Psycho-educational Report Recommendations

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Special Education Eligibility Evaluation:

Testing Accommodations



- ▶ The core deficits of autism can significantly impact test performance.
 - ▶ Impairments in communication may make it difficult to respond to verbal test items and/or generate difficulty understanding the directions that accompany nonverbal tests.
 - ▶ Impairments in social relations may result in difficulty establishing the necessary joint attention.
- ▶ Examiners must constantly assess the degree to which tests being used reflect symptoms of autism and not the specific targeted abilities (e.g., intelligence, achievement, psychological processes).

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Special Education Eligibility Evaluation:
Testing Accommodations

- ▶ It is important to acknowledge that the autistic population is very heterogeneous.
- ▶ There is no one set of accommodations that will work for every student with autism.
- ▶ It is important to consider each student as an individual and to select specific accommodations to meet specific individual student needs.

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Special Education Eligibility Evaluation:
Testing Accommodations

- ▶ Prepare the student for the testing experience (environment).
- ▶ Place the testing session in the student's daily schedule (routine).
- ▶ Minimize distractions.
- ▶ Make use of pre-established physical structures and work systems.
- ▶ Make use of powerful external rewards.
- ▶ Carefully pre-select task difficulty.
- ▶ Modify test administration and allow nonstandard responses.

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Special Education Eligibility Evaluation:
Testing Accommodations

- ▶ Students with autism are a very heterogeneous group, and in addition to the core features of autism, it is not unusual for them to display a range of behavioral symptoms including hyperactivity short attention span impulsivity, aggressiveness, self-injurious behavior, and (particularly in young children) temper tantrums.
- ▶ Observation of the student with autism in typical environments will also facilitate the evaluation of test taking behavior.
- ▶ Observation of test taking behavior may also help to document the core features of autism.

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Special Education Eligibility Evaluation:
Specific Tests

Choice of Assessment Instruments

- ▶ An important goal of this session is to help your SELPA develop standard batteries of assessment for particular reasons and particular students.
- ▶ For example...
 - ▶ Initial evaluations vs. re-evaluations
 - ▶ Students with high functioning autism vs. students with a co-occurring ID
 - ▶ Students with spoken language vs. students without any language system

Special Education Eligibility Evaluation:
Specific Tests

Choice of Assessment Instruments

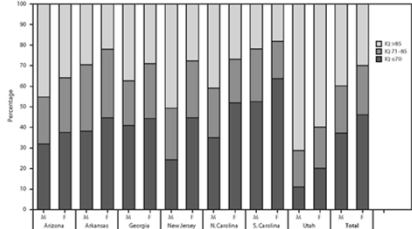
- ▶ Child's level of verbal abilities and developmental level.
- ▶ Ability to respond to complex instructions and social expectations.
- ▶ Ability to work rapidly.
- ▶ Ability to cope with transitions during test activities.
- ▶ In general, children with autism will often perform best when assessed with tests that require less social engagement and verbal mediation.
- ▶ *DSM-5's* "specifiers" may help you select the appropriate tests.

Special Education Eligibility Evaluation:
Cognitive Functioning

- ▶ Assessment of cognitive function is essential given that a significant percentage of students with autism will also be intellectually disabled.
- ▶ IQ is associated with adaptive functioning, the ability to learn and acquire new skills, and long-term prognosis.
 - ▶ Thus, level of cognitive functioning has implications for determining how restrictive the educational environment will need to be.

**Special Education Eligibility Evaluation:
IQs of Children Aged 8 with ASD**

FIGURE 3. Most recent intelligence quotient (IQ) as of age 8 years among children identified with autism spectrum disorders (ASDs) for whom psychometric test data were available,* by site and sex — Autism and Developmental Disabilities Monitoring Network, seven sites, United States, 2008



CDC (2013)

**Special Education Eligibility Evaluation:
Cognitive Functioning**

- ▶ A powerful predictor of autism symptom severity.
- ▶ However, given that children with autism are ideally first evaluated when they are very young, it is important to acknowledge that it is not until age 5 that childhood IQ correlates highly with adult IQ.
 - ▶ Thus, it is important to treat the IQ scores of the very young child with caution when offering a prognosis, and when making placement and program planning decisions.
 - ▶ However, for school aged children it is clear that the appropriate IQ test is an "...excellent predictor of a student's later adjustment and functioning in real life" (Frith, 1989, p. 84).

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**Special Education Eligibility Evaluation:
Cognitive Functioning**

- ▶ Regardless of the overall level of cognitive functioning, it is not unusual for the student being tested to display an uneven profile of cognitive abilities.
- ▶ Thus, rather than simply providing an overall global intelligence test score, it is essential to identify these cognitive strengths and weaknesses.
- ▶ At the same time, however, it is important to avoid the temptation to generalize from isolated or "splinter" skills when forming an overall impression of cognitive functioning, given that such skills may significantly overestimate typical abilities.

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Special Education Eligibility Evaluation: Cognitive Functioning

- ▶ Selection of specific tests is important to obtaining a valid assessment of cognitive functioning (and not the challenges that are characteristic of autism).
- ▶ Some measures are more appropriate for students with spoken language (e.g., *Wechsler scales*, *Differential Abilities Scale -2*)



Special Education Eligibility Evaluation: Cognitive Functioning

- ▶ On the other hand, for students who have more severe language delays measures that minimize verbal demands are recommended (e.g., the *Leiter International Performance Scale - Revised*, *Merrill Palmer Revised*; *DAS-2 nonverbal composite*)




Special Education Eligibility Evaluation: Adaptive Behavior

- ▶ Given that diagnosing intellectual disability requires examination of both IQ and adaptive behavior, it is also important to administer measures of adaptive behavior when assessing students with autism.
- ▶ Other uses of adaptive behavior scales when assessing students with autism are:
 - a) Obtain measure of child's typical functioning in familiar environments, e.g. home and/or school.
 - b) Target areas for skills acquisition.
 - c) Identifying strengths and weaknesses for educational planning and intervention
 - d) Documenting intervention efficacy
 - e) Monitoring progress over time.

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Special Education Eligibility Evaluation:
Adaptive Behavior

- ▶ Profiles of students with autism are unique.
- ▶ Individuals with only intellectual disability typically display flat profiles across adaptive behavior domains
- ▶ Students with autism might be expected to display relative strengths in daily living skills, relative weaknesses in socialization skills, and intermediate scores on measures of communication abilities.



Special Education Eligibility Evaluation:
Adaptive Behavior

- ▶ Specific measures:
 - ▶ Vineland Adaptive Behavior Scales
 - ▶ Brigance Inventory of Early Development.
 - ▶ Early Learning Accomplishment Profiles.
 - ▶ Scales of Independent Behavior-Revised.
 - ▶ AAMD Adaptive Behavior Scale.
 - ▶ Learning Accomplishments Profile.

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Special Education Eligibility Evaluation:
Language Functioning

ASHA Recommended Areas of Assessment

- ▶ Initiation of spontaneous communication in functional activities across social partners and settings
- ▶ Comprehension of verbal and nonverbal discourse in social, academic, and community settings.
- ▶ Communication for a range of social functions that are reciprocal and promote the development of social relationships.
- ▶ Verbal and nonverbal means of communication, including natural gestures, speech, signs, pictures, written words, as well as other AAC systems.

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Source: Wetherby et al (2006). Retrieved from www.asha.org

Special Education Eligibility Evaluation:
Psychological Processes


- ▶ Helps to further identify learning strengths and weakness.
- ▶ Depending upon age and developmental level, traditional measures of such processes may be appropriate.
- ▶ It would not be surprising to find relatively strong rote, mechanical, and visual-spatial processes; and deficient higher-order conceptual processes, such as abstract reasoning.
- ▶ While IQ test profiles should never be used for diagnostic purposes, it would not be surprising to find the student with Autistic Disorder to perform better on non-verbal (visual/spatial) tasks than tasks that require verbal comprehension and expression.
 - ▶ The student with Asperger's Disorder may display the exact opposite profile.

Special Education Eligibility Evaluation:
Academic Functioning

- ▶ Assessment of academic functioning will often reveal a profile of strengths and weaknesses.
 - ▶ It is not unusual for students with autism be hyperverbal/hyperlexic, while at the same time having poor comprehension and difficulties with abstract language. For others, calculation skills may be well developed, while mathematical concepts are delayed.

Special Education Eligibility Evaluation:
Academic Functioning

- ▶ For students functioning at or below the preschool range and with a chronological age of 6 months to 7 years, the *Psychoeducational Profile - Third Edition* may be an appropriate choice.



<http://www.proedinc.com/customer/productView.aspx?ID=3577>

Special Education Eligibility Evaluation:
Academic Functioning

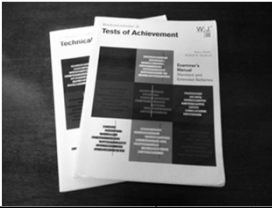
PEP-3

- ▶ Individually administered in 45 to 90 minutes
- ▶ Yields 3 composite scores (Communication, Motor, and Maladaptive Behaviors)
- ▶ 10 Performance Subtests:
 - ▶ Cognitive Verbal/Preverbal, Expressive Language, Receptive Language, Fine Motor, Gross Motor, Visual-Motor Imitation, Affective Expression, Social Reciprocity, Characteristic Motor Behaviors, Characteristic Verbal Behaviors
- ▶ Includes a Caregiver Report

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Special Education Eligibility Evaluation:
Academic Functioning

- ▶ For older, higher functioning students, the *Woodcock-Johnson Tests of Achievement* and the *Wechsler Individual Achievement Test* would be appropriate tools.



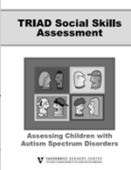
Special Education Eligibility Evaluation:
Developmental Assessment

- ▶ Birth to 5 years
 - ▶ BRIGANCE Inventory of Early Development - Third Edition (IED)
- ▶ Preschool age to 8 years
 - ▶ Battelle Developmental Inventory, Second Edition (BDI-2)

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**Special Education Eligibility Evaluation:
Social Functioning**

- ▶ Tools that provide an overview of social functioning (i.e., social needs and current repertoire)
 - ▶ Vineland Adaptive Behavior Scales.
- ▶ More specific information may be obtained from:
 - ▶ TRIAD Social Skills Assessment



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**Special Education Eligibility Evaluation:
Social Functioning**

- ▶ TRIAD Social Skills Assessment
 - ▶ Designed to address the social skills difficulties unique to children (ages 6 to 12 years) with autism.
 - ▶ Requires first grade reading level.
 - ▶ Criterion-based assessment of knowledge and skills in
 1. Cognitive: The ability to understand other's perspectives
 2. Behavioral: The ability to initiate/maintain interactions and respond appropriately to others
 3. Affective: The ability to understand basic and complex emotions

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**Special Education Eligibility Evaluation:
Social Functioning**

- ▶ TRIAD Social Skills Assessment
 - ▶ Four sources of information
 1. Parent report: Social skills in the home/community settings
 2. Teacher report: Social skills in the school setting
 3. Behavioral observation: Social skills observed by the clinician
 4. Child interaction: Social skills observed by the clinician
 - ▶ Available:
 - ▶ http://kc.vanderbilt.edu/kennedy_files/TSSAManual_102010.pdf

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Special Education Eligibility Evaluation:
Emotional Functioning

- ▶ 65% present with symptoms of an additional psychiatric disorder such as AD/HD, oppositional defiant disorder, obsessive-compulsive disorder and other anxiety disorders, tics disorders, affective disorders, and psychotic disorders.
- ▶ Given these possibilities, it will also be important for the school psychologist to evaluate the student's emotional/behavioral status.

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Special Education Eligibility Evaluation:
Emotional Functioning

- ▶ Traditional measures such as the *Behavioral Assessment System for Children, Second Edition*, would be appropriate as a general purpose screening tool, while more specific measures such as *The Children's Depression Inventory, Second Edition*, and the *Revised Children's Manifest Anxiety Scale, Second Edition* would be appropriate for assessing more specific presenting concerns.



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Special Education Eligibility Evaluation:
Multi-disciplinary Assessment Dilemmas

Discussion: How does the IEP team addresses...

- ▶ A student has a diagnosis of ASD from a private doctor, and parents have requested assessment. As a result of multidisciplinary assessment, special education eligibility is not conferred.
- ▶ A team member is under the misperception that a medical diagnosis must have been made prior to special education eligibility under Autistic-like behavior.
- ▶ The multidisciplinary team's evaluation determines the primary handicap to be autism eligibility (but the student also meets SLI criteria). The parent disagrees and feels that the student's social functioning differences are because he is a "only child."

**Special Education Eligibility Evaluation:
Report Recommendations**

- ▶ From a review of the literature we have identified interventions often recommended when addressing some of the specific challenges associated with these disorders.
- ▶ The slides that follow offer some of these recommendations (along with the accompanying background information) that we feel you might find useful when writing a psycho-educational report.
- ▶ It is important to acknowledge that without a careful assessment of specific student needs this information will not be relevant.
- ▶ However, following a comprehensive psycho-educational evaluation, and the identification of specific student needs, this information will be helpful in stimulating thinking about appropriate psycho-educational report recommendations for the student with autism.

Paper available at:
http://www.csus.edu/indiv/b/brocks/Courses/EDS%20243/student_materials.htm

**Special Education Eligibility Evaluation:
Report Recommendations**

- ▶ *If the student is challenged by social situations, then the following intervention and support recommendations might be appropriate:*

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**Special Education Eligibility
Evaluation:
Report Recommendations**

- ▶ Provide interpretation of social situations as indicated. Specifically, the following are suggested:
 - ▶ Make use of social stories.TM
 - ▶ A social story is a short story that explains a specific challenging social situation. The goal is to find out what is happening in a situation and why.

Gray & White (2002)

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ The following is an example of a social story:

When Other Students Get Upset

Sometimes other students get upset and cry. When this happens their teacher might try to help them. The teacher might try to help them by talking to them or holding them. This is okay. Sometimes when other students get upset and cry, it makes me upset and angry. I can use words to tell my teacher that I am upset. I can say, "That makes me mad!" or "I'm upset!" It is okay to use words about how I feel. When I get upset I will try to use words about how I feel.

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ For more information about social stories go to
- ▶ <http://carolgraysocialstories.com/>
- ▶ <http://www.easysocialstories.com/>
- ▶ <https://www.pinterest.com/pediastaff/social-stories/>
- ▶ <http://www.educateautism.com/social-stories.html>

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Use cartooning to illustrate the rules of challenging social situations.
- ▶ For example, ...

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Myles & Simpson (2001)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Explain problematic social situations and in doing so let _____ know that there are specific choices to be made and that each choice has a specific consequence. Specific steps in this process are as follows:
 - ▶ Help the _____ understand the problematic social situation (i.e., who was involved, what happened, etc.)
 - ▶ Facilitate _____'s brainstorming of options for responding to the situation.
 - ▶ Help _____ explore the consequences for each option identified.
 - ▶ Help _____ identify the response that has the most desirable consequences.
 - ▶ Develop an action plan.
 - ▶ Practice the response to the problematic social situation by role playing, visualizing, writing a plan or talking it out with a peer.

Myles & Simpson (2001)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ To address _____'s difficulty making friends, the following interventions are recommended:
 - ▶ Establish structured activities with peers. These activities should have pre-assigned roles that can be practiced.
 - ▶ Provide direct instruction on how to approach an individual or group.
 - ▶ Provide direct instruction on the skills needed to interact with peers.
 - ▶ Structure social opportunities around _____'s special interests

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ After a challenging social situation conduct a "social autopsy." Such a conversation involves an examination and inspection of _____'s social errors to discover their causes, better understand the consequences of such errors, and to decide what can be done to prevent it from happening again.

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Myles & Simpson (2001)

Special Education Eligibility Evaluation:
Report Recommendations


- ▶ Identify specific social conventions that need to be taught and then provide direct instruction. Examples, of social conventions that _____ may need to be taught include the following (LIST SPECIFIC SOCIAL RULES THAT ASSESSMENT DATA SUGGESTS TO BE PROBLEMATIC. EXAMPLES FOLLOWS):
 - ▶ Do not ask to be invited to someone's party
 - ▶ Do not correct someone's grammar when he or she is angry.
 - ▶ Never break laws - no matter what your reason.
 - ▶ Do not touch someone's hair even if you think it is pretty.
 - ▶ Do not ask friends to do things that will get them in trouble.
 - ▶ Do not draw violent scenes.
 - ▶ Do not sit in a chair that someone else is sitting in - even if it is 'your' chair.
 - ▶ Do not tell someone you want to get to know better that he or she has bad breath.

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Myles & Simpson (2001, p. 8).

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Make use of _____'s special interests to develop "power cards" that facilitate understanding of social rules. (TRY TO LINK THE STUDENTS SPECIAL INTERESTS TO PROBLEMATIC SOCIAL SITUATIONS.) For example, make use of _____'s interest in automotive mechanics and provide him/her with the following card that can be placed on his/her desk and/or placed in his/her pocket.



Automotive mechanics and students both...
 1)listen to people when they tell them that something is wrong.
 2)ask good questions to make sure they understand the problem.
 3)try to solve problems.

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Myles & Simpson (2001)


Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If the student has difficulties with expressive language, then the following might be appropriate:*

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Consider making use of a Picture Exchange Communication System (PECS).
- ▶ PECS is a picture based communication system where the student gives a picture or symbol of a desired item in exchange for the item itself.
- ▶ The intent of PECS is to assist the student in developing spontaneous communication. The following are examples of PECS symbols:



Frost & Bondy (1994)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Sample PECS IEP objectives can be found at <http://www.pecsaustralia.com/downloads.php>
- ▶ PECS pictures and photos can be found at www.childrenwithspecialneeds.com/downloads/pecs.html
- ▶ Blank PECS image grids, and daily and weekly picture card schedule forms
- ▶ www.do2learn.com/picturecards/forms/index.htm

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ For more information about PECS go to
 - ▶ http://www.bbbautism.com/pecs_contents.htm

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Specific PECS cards should include the following (AS INDICATED BY ASSESSMENT DATA):
 - ▶ "Break" Cards that assist _____ in communicating when he/she needs to escape a task or situation.
 - ▶ "Choice" cards that provide _____ some control by indicating a choice from a prearranged set of possibilities
 - ▶ "All done" cards that assist _____ in communicating when he/she is finished with an activity or task.
 - ▶ "Turn-taking" cards that can be used to visually represent and mark whose turn it is.
 - ▶ "Wait" cards that can be used to visually teach the concept of waiting.
 - ▶ "Help" cards that assist in teaching _____ to raise his/her hand to indicate the need for assistance.

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If disruptive behavior problems are present, then following might be appropriate:*

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Functional behavioral assessment is recommended.

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Students with autism frequently engage in disruptive behaviors to escape demands and gain or maintain access to perseverative items and activities. Thus, the focus of any functional assessment should include special attention to perseverative behaviors that might serve to obtain desirable sensory stimuli.

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Reese et al. (2003)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ Students with autism also frequently engage in disruptive behaviors to escape aversive sensory stimuli. Thus, the focus of any functional assessment should also direct attention to perseverative behaviors that might serve to escape from aversive sensory stimuli.

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Reese et al. (2003)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If disruptive behavior problems are present and known to be related to perseverative activities, then following might be appropriate:*
 - ▶ Identify and decrease environmental and/or physiological conditions that are related to perseverative behavior.
 - ▶ Determine if the behavior is an attempt to avoid aversive sensory stimulation or a strategy to obtain desirable sensory stimulation.

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Reese et al. (2003)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If a student needs predictability (e.g., becomes anxious when new materials/activities are introduced), then the following might be appropriate:*
 - ▶ Employ “priming.” This involves showing the actual instructional materials that will be used in a lesson the day, evening, or morning before the given classroom activity is going to take place. Priming should be brief (10 to 15 minutes) and built into _____’s daily schedule and should take place in a relaxing environment.

Myles & Adreon (2001)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If disruptive behaviors appear to be related to anxiety and/or a desire to avoid aversive sensory stimulation, then the following might be appropriate:*
 - ▶ The problem (perseverative) behaviors appear to have a calming or organizing effect and might be related to anxiety. Thus, the following strategies are recommended as they appear to reduce anxiety (and in doing so may decrease the need for the perseverative behaviors):
 - ▶ Establish predictable routines
 - ▶ Use visual schedules to facilitate coping with change
 - ▶ Practice alternative coping behaviors such as relaxation

Reese et al. (2003)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If disruptive behaviors appear to be related to obtaining desirable sensory stimulation, then the following might be appropriate:*
 - ▶ The problem (perseverative) behaviors appear to be positively reinforcing. Thus, the following strategies are recommended:
 - ▶ Provide appropriate access to the desired sensory stimulation on a regular basis. Provide instruction on how to appropriately obtain the desired stimuli. This will decrease the need to engage in behaviors that have as their function obtaining the stimuli.
 - ▶ Providing contingent access to the desired sensory stimulation may be used as a positive reinforcer for the completion of instructional tasks.

Reese et al. (2003)

Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If the student has weaknesses in social, language, attention, organizational, transitioning, and auditory processing, then the following might be appropriate:*
 - ▶ The instructional program should centers on an student's strengths (TYPICALLY ROTE MEMORY AND VISUAL PROCESSING), special interests, and needs. It may include the following:
 - ▶ Visual schedules that depict the student's daily routine
 - ▶ Work systems
 - ▶ Calendars to help the student understand when regularly scheduled events may occur
 - ▶ To facilitate transitions, make use of visual cues that forewarn the student when something is going to end, stop or be all done. This assists in transitions.
 - ▶ Place classroom rules in a visual form on the student's desk.

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If a student has reading fluency and/or comprehension difficulties, then the following might be appropriate:*
 - ▶ Highlighted text
 - ▶ Study guides

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If a student has written expression (e.g., handwriting) difficulties, then the following might be appropriate:*
 - ▶ When assessing _____'s content knowledge allow for verbal, instead of written responses.
 - ▶ When completing written assignments allow _____ to use the computer instead of pen or pencil.
 - ▶ Multiple-choice tests can be used instead of short answer to assess subject matter knowledge
 - ▶ Allow _____ to create projects, rather than producing written reports.

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Special Education Eligibility Evaluation:
Report Recommendations

- ▶ *If a student has difficulty with note taking, then the following might be appropriate:*
 - ▶ Provide _____ with a complete outline including the main idea and supporting details.
 - ▶ Provide _____ with a skeletal outline that he/she can use to fill in details.

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Treatments

- ▶ **Behavior and Communication Approaches**
 - ▶ Applied Behavior Analysis (ABA):
 - ▶ Discrete Trial Training (DTT)
 - ▶ Early Intensive Behavioral Intervention (EIBI)
 - ▶ Pivotal Response Training (PRT)
 - ▶ Verbal Behavior Intervention (VBI)

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Treatments

- ▶ **Behavior and Communication Approaches**
 - ▶ Other therapies that can be part of an autism treatment program include:
 - ▶ Developmental, Individual Differences, Relationship-Based Approach (DIR; also called "Floortime")
 - ▶ Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH)
 - ▶ Occupational Therapy
 - ▶ Sensory Integration Therapy
 - ▶ Speech Therapy
 - ▶ The Picture Exchange Communication System (PECS)

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Treatments

- ▶ Dietary Approaches?
- ▶ Medication?
- ▶ Complementary and Alternative Treatments?

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Additional Resources

- ▶ Free materials from the CDC (great for parents)
 - ▶ <http://www.cdc.gov/ncbddd/autism/freematerials.html>
 - ▶ [Growth Chart](#)
 - ▶ [Milestones Card](#)
 - ▶ [Resources Fact Sheet](#)
 - ▶ [Developmental Screening Fact Sheet](#)
 - ▶ [Autism Spectrum Disorders Fact Sheet](#)

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Autism

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