Autism, Language Disorder, and Social (Pragmatic) Communication Disorder: DSM-V and Differential Diagnoses

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Educational Gap

The recent revision of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM-V) included refinements to the diagnostic criteria for autism spectrum disorders and language disorders and introduced a new entity, social (pragmatic) communication disorder. Clinicians should become familiar with these changes and understand how to apply this new knowledge in clinical practice.

Objectives

After completing this article, readers should be able to:

1. Know the revised criteria for autistic spectrum disorders and language disorders and the diagnostic criteria for social (pragmatic) communication disorder.
2. Understand the clinical similarities and difference of these disorders.
3. Know the differences in the long-term prognosis of these disorders.
4. Be familiar with some relatively common “nonspecific” behaviors that should not be confused with specific developmental disorders.

INTRODUCTION

The past decade has witnessed an explosion in public and professional awareness of autism and autistic spectrum disorders (ASDs). Once considered to be a rare disorder, ASD now has a reported prevalence rate of slightly more than 1% among United States children. (1) Although the cause of this increased prevalence is not certain, greater awareness has likely resulted in improved recognition. This has been accompanied by increased research on autism focused on its cause and effective interventions for young children. Autism treatment programs are now widely available in school and community settings.

At the same time, childhood language disorders, which are more common than ASDs, have remained relatively unknown publicly and professionally. At kindergarten entry, approximately 7% to 8% of children have evidence of a language impairment (2) and are at significant risk for difficulty with language-based learning.
tasks and social adaptation as they progress through school. The most recent revision of the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) introduced social (pragmatic) communication disorder (SPCD) as a distinct disorder of communication affecting a broad range of social interactions. (3) Although recognized by speech-language pathologists for many years, pragmatic language impairment is likely to be an unfamiliar construct to most other clinicians. Symptoms of this disorder are usually present in children with autism and may be part of a broader language disorder. However, SPCD also may be seen in children who use fluent and complex language.

Because children with ASD, language disorder, or SPCD often share some common features, differential diagnosis may be difficult in very young children. However, by the time most children enter kindergarten, distinguishing among these disorders should be possible. As discussed in this article, outcomes of these conditions differ substantially. Accurate diagnosis is necessary for both directing children and families to appropriate treatments and counseling families about children’s prognoses and future needs.

**AUTISTIC SPECTRUM DISORDERS**

In 1943, Kanner noted that individuals with autism had severely impaired ability to relate to other people and situations “in an ordinary way,” preferring to be alone. They were unable to “use language to convey meaning to others,” although their rote memory was excellent. Kanner also noted that their spontaneous activities were limited in variety, and their behavior was “governed by an anxiously obsessive desire for the maintenance of sameness that nobody but the child himself may disrupt on rare occasions.” (4) These original observations have served as the basis for the diagnosis of autism and other “pervasive developmental disorders.” In May 2013, DSM-V provided a revised definition of ASD that focused on symptom severity in two core dimensions: social (social communication and social interaction) and non-social (restricted, repetitive patterns of behaviors, interests, or activities) (Table 1). This new definition helps to distinguish individuals with a primary lack of social interest (ASD) from those whose social difficulties are due to their deficits in communication abilities.

Children with autism may be oblivious to peers or parents and not notice when others are distressed or in need of assistance (ie, lack empathy). In many children, inflexible adherence to very specific and apparently nonfunctional routines or rituals and marked resistance to any type of change in these patterns furthers their isolation from their surroundings and presents a major challenge to learning and social integration with peers. In the past, autism had often been associated with generalized cognitive impairments. More recent surveillance data have identified that most affected children (62%) have intellectual abilities in the normal range (intelligence quotient [IQ] > 70). (1) Restricted interests may manifest as an extraordinary focus on a limited range of topics (eg, dinosaurs, bathroom fixtures, United States Presidents, origami designs) to the exclusion of most other subjects.

**Prevalence**

According to statistics compiled by the Centers for Disease Control and Prevention Autism and Developmental Disabilities Monitoring Network, the prevalence of autism among children age 8 years has increased from approximately 1:150 in 2000 to 1:68 in 2010, with a male-to-female ratio of 4.5:1. This represents an increase of approximately 78% over the 8-year reporting period. The greatest increases were seen in Hispanic children, non-Hispanic black children, and those without co-occurring intellectual impairment. (1)

**Causative Factors**

Genetic factors appear to play a significant role in autism. For example, a known genetic or chromosomal condition (eg, Down syndrome, fragile X syndrome, tuberous sclerosis) is identified in approximately 10% of people with autism. Heredity also plays a significant role: a couple who has one child with autism has a 2% to 18% chance of having a second affected child. (5) In twin studies, if one identical twin has autism, the other will be similarly affected 36% to 95% of the time. (6) Other biologic risk factors for autism include children born to older parents (7) and children born preterm or with low birth-weight. (8)(9)

**Developmental Trajectory**

The earliest symptoms of ASD may include a lack of social interaction in the first year after birth and delay in language developmental milestones. Affected infants typically “fail to connect” with their parents and caretakers due to very limited joint attention behaviors. In both retrospective and prospective studies, infants and toddlers diagnosed with ASD demonstrated impairments or delays in visual behaviors (atypical tracking and fixation on objects), motor development (decreased activity levels, delayed fine or gross motor ability, atypical motor mannerisms), play (limited imitative play, odd or repetitive play patterns), social communication (lack of interest in faces, poor eye contact, lack of social smiling or responsiveness to others), language
### TABLE 1. Autism Spectrum Disorder: DSM-V Definition

**Diagnostic Criteria**

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):

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.

**Specify current severity:** Severity is based on social communication impairments and restricted, repetitive patterns of behavior.

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):

1) Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypes, 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 or 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).

**Specify current severity:** Severity is based on social communication impairments and restricted, repetitive patterns of behavior.

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 developmental 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.


(eespecially social babbling, verbal comprehension, use of words or gestures to communicate), and general cognitive development. In many of these infants, early difficulty with sleep patterns and emotional regulation (atypical responsiveness to internal or external stimuli) were present.

A pattern of gradual or rapid regression involving loss of previously acquired speech and social-emotional connectedness, usually before 18 months of age, has been reported in 20% to 50% of children diagnosed with ASD. Odd and repetitive behaviors typically emerge after the second year of age, and the intensity of sensory and behavioral responses to stimuli (e.g., extreme resistance to any change) increases with age. As they enter their adult years, very few individuals with ASD can live and work independently; most continue to require support and supervision. Those individuals with intact intellectual and language abilities often remain socially isolated but may be able to find a niche that conforms to their unique skills and interests.

**CHILDHOOD LANGUAGE DISORDERS**

Language provides a shared convention for communicating with others. It also serves as a medium through which learning and social interactions occur. In the broadest sense, communication abilities encompass all of the actions and skills involved in exchanging information, thoughts, and feelings with others. As such, communication skills have both verbal and nonverbal components. More specifically, language abilities refer to the use and understanding of words and sentences. At the most basic level, the essential structural components of language include sound production (phonemes), word meaning (semantics), grammar (syntax), and rhythm and intonation of speech (prosody). Higher-order
language abilities involve appropriate functional use of verbal and nonverbal skills for effective communication (pragmatics). A disorder of language development not due to intellectual or physical disability is often referred to in the literature as specific language impairment (SLI).

Prevalence
The prevalence of language delay in children varies with age and the criteria used. In addition, there is no uniform pattern to the deficits exhibited by children with language disorders. DSM-V defines childhood language disorder as persistent difficulty “in the acquisition and use of language across modalities (i.e., spoken, written, sign language, or other) due to deficits in comprehension or production” that are “substantially and quantifiably” below age expectations (Table 2). Although DSM-V does not provide quantitative guidelines to assist with the diagnosis, SLI is defined in most research settings by a composite language measure that falls 2 or more standard deviations (SD) below the mean (16) (or scores of 1.25 SD below the mean on two or more subscales(2)) on omnibus language tests in the presence of normal nonverbal intellectual ability (performance IQ > 85). At 24 months of age, up to 17% of children are delayed in meeting what are considered typical language milestones. (17) Although many preschoolers resolve their language delays over time, by kindergarten entry, approximately 7.4% of children continue to be delayed in language development, despite having normal nonverbal cognitive ability and no other explanation for their delay. (2)

Causative Factors
A large number of social, environmental, and health factors have been associated with language development in children. (18) Genetic factors appear to play a major role, as indicated by language disorders frequently clustering in families (19) and having a very high concordance rate in monozygotic twins. (20) Language disorders are significantly more common in boys than girls, with sex ratios varying from 1.3 to 5.9:1. (21)

Developmental Trajectory
Most children who are later diagnosed with SLI display a delay in onset or use of words up to 3 years of age. In some cases, they attempt to compensate for an inability to use words by relying on gestures and other body language, but frustration and tantrums are common. Although many preschool children use routines and schedules to help negotiate their daily activities and experiences, those with language impairments may have a greater need for routine and may exhibit more resistance or stress in new or unfamiliar situations. In general, as language skills improve, there is a corresponding improvement in social behavior and ability to adapt to change. As children with SLI start to use words, they may repeat phrases or dialog from movies or stories in an echolalic manner. Echolalia can be immediate or delayed. Immediate echolalia consists of unmodified repetition (one word or more) of what another person has just said; delayed echolalia refers to repetition that happens after a significant time delay. For example, a child may say, “You want juice?” after being asked whether he wants juice (immediate echolalia) or he may use a sentence he has heard previously, “You want juice?” to indicate that he is thirsty (delayed echolalia). In both examples, echolalia clearly serves a communicative function. Typically, the linguistic sophistication of the echolalic utterances exceeds what the child typically says. Echolalia reflects a specific weakness in understanding and using grammatical knowledge, resulting in an inability to combine words spontaneously to form sentences, even though the children comprehend the overall meaning (gist) of the phrases. Reliance on repeating large chunks of language reflects a holistic “top-down” pattern of language development in children who do not know how to construct sentences from the “bottom up.” Although children who have SLI have limited receptive and expressive language abilities, their nonverbal and visual abilities are

<table>
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<tr>
<th>TABLE 2. Language Disorder: DSM-V Definition</th>
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<tbody>
<tr>
<td><strong>Diagnostic Criteria</strong></td>
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<tr>
<td>A. Persistent difficulties in the acquisition and use of language across modalities (i.e., spoken, written, sign language, or other) due to deficits in comprehension or production that include the following:</td>
</tr>
<tr>
<td>1) Reduced vocabulary (word knowledge and use).</td>
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<tr>
<td>2) Limited sentence structure (ability to put words and word endings together to form sentences based on the rules of grammar and morphology).</td>
</tr>
<tr>
<td>3) Impairments in discourse (ability to use vocabulary and connect sentences to explain or describe a topic or series of events or have a conversation).</td>
</tr>
<tr>
<td>B. Language abilities are substantially and quantifiably below those expected for age, resulting in functional limitations in effective communication, social participation, academic achievement, or occupational performance, individually or in any combination.</td>
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<tr>
<td>C. Onset of symptoms in the early developmental period</td>
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<tr>
<td>D. The difficulties are not attributable to hearing or other sensory impairment, motor dysfunction, or another medical or neurological condition and are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay.</td>
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generally intact. Imitation and pretend play are typically preserved, but their peer interactions may be adversely affected by their communication difficulty. (17)

Both immediate and delayed echolalia are often associated with autism, but as noted by Tager-Flusberg et al, they are not "synonymous with or unique to this syndrome [i.e., ASD]."(22) Idiosyncratic or noncommunicative use of echolalia (for self-stimulation, self-regulation of behaviors, or apparently private meanings not shared by others) seems to distinguish individuals with autism from those with SLI. (23) For both children with SLI and autism, echolalia is replaced by spontaneously created phrases and sentences as mastery of language improves. (24)

Children with SLI generally respond positively to speech-language therapy, and they may master the basic language skills of grammar and word knowledge by the time they enter kindergarten. In some cases, they may be dropped from further therapy because they no longer qualify for services. Despite this period of "illusory recovery,"(25) children with an early history of language delay remain at high risk for academic difficulty. (26) Prospective studies of both clinically referred and community samples have found that language impairments and social-emotional difficulties of some degree persist into adulthood in approximately 50% to 80% of affected individuals. (27)(28) Many children appear to improve significantly in basic language abilities, only to experience learning difficulties with literacy (word reading, reading comprehension, and writing skills) and with mathematics as they progress through school. (25)(29) In the few published prospective studies of adults diagnosed with language disorders in childhood, most functioned independently, married, and had families. (12) Adults with persistent deficits in basic language abilities tended to work in professions that did not demand high language and literacy levels. In one very small study, adult males with severe language disorders had a relatively poor prognosis, exhibiting a decline in nonverbal cognitive abilities over time, and a significant minority struggled to find and maintain steady employment. (30)

**SOCIAL (PRAGMATIC) COMMUNICATION DISORDER**

DSM-V identifies SPCD as a form of communication disorder affecting the use of language for social exchanges, ability of individuals to adapt their communication style to the context of the interaction, ability to follow conventional and cultural norms (rules) for conversation, and ability to understand implicit or ambiguous language (Table 3). As noted by Staikova et al, “(Pragmatics) is the domain of language that manages how other aspects of language are used in conversational contexts.”(31) Disorders of the pragmatic aspects of language have been recognized since the 1980s. (32) and SPCD represents a refinement of this diagnostic category. (33) Although pragmatic language difficulties can be part of a more general language disorder, ASD, or genetic/neurologic syndromes (e.g., Williams syndrome, spina bifida/hydrocephalus), research demonstrates that SPCD can present in the absence of other conditions. (31) (34)(35) Because of frequent diagnostic overlap, social-pragmatic skills are best viewed as one dissociable dimension of language and communication ability. SPCD should be considered when there is a significant discrepancy between the individual’s social-pragmatic skills and structural language abilities. The prevalence of SPCD in the general population has not yet been determined.

Children with SPCD frequently misinterpret what other people say and do. They have difficulty expressing themselves, verbally and nonverbally, in ways that are
appropriate to the situation. (36) They may also struggle with understanding and using idioms, humor, slang, metaphor, irony, and sarcasm appropriately. Individuals with weak pragmatic abilities often appear to be socially awkward, inappropriate, or odd. Further, overreliance on literal interpretation of language and inability to make correct inferences may impair their ability to interact with peers and lead to social isolation, anxiety, and frustration.

Developmental Trajectory
Because language is used socially to initiate and maintain relationships, deficits in pragmatic language usually become noticeable by age 4 or 5 years. In school settings, children with SPCD may be socially ostracized or bullied. Social naiveté may also make them vulnerable to being taken advantage of by more socially savvy peers. In a recent community sample of 4-year-old children, Ketelaars et al found pragmatic difficulty strongly associated with peer problems, emotional problems, conduct problems, and hyperactivity/inattention. (37) However, in a longitudinal follow-up study, young adults who had been diagnosed with pragmatic language impairment generally progressed furthest academically and were more likely to work in skilled professions than individuals who had been diagnosed with either ASD or SLI as children. (12)

APPRAOCH TO DIFFERENTIAL DIAGNOSES
The challenge for the clinician confronting a young child who is delayed in talking or who has difficulty interacting with adults or other children is to distinguish among several possible diagnostic explanations. Many early symptoms of ASD and language disorders are nonspecific and may be related to the child’s level of cognitive developmental or difficulty with emotional regulation. For example, atypical emotional reactivity or gaze avoidance may be an early sign of ASD but could also be due to extreme shyness or anxiety, visual or auditory impairments, severe cognitive delay, or nonautistic communication disorders. Children with symptoms of attention-deficit/hyperactivity disorder (ADHD) and comorbid language impairment may present special diagnostic challenges because their inattention may be related to both their lack of understanding of language and their impulsive and hyperactive behavior style. In addition, children with ADHD have deficits in social and pragmatic language skills, even after controlling for their general language abilities. (30)(36)(38) Finally, delayed emergence of expressive language skills may be a normal variation (so-called “late talker syndrome”). (17)

Accurate differential diagnosis should start with a determination of the child’s overall pattern of cognitive and communication abilities. The gold standard for such evaluation is formal assessment by a multidisciplinary team of professionals that might include a child psychologist, speech-language pathologist, developmental pediatrician, child psychiatrist, and education specialist. However, a child’s developmental and functional levels can be assessed in a pediatric setting through a variety of means. For example, a careful history from the parents and caretakers, focusing specifically on the child’s speech and language, motor, social, and play skills and augmented by structured questionnaires and rating forms completed by adults familiar with the child can provide very accurate information. Observation of the child’s skills in the clinical environment may be helpful but cannot be relied upon because children may not demonstrate their capabilities in an unfamiliar setting. Ultimately, a correct diagnosis depends on both quantitative and qualitative comparisons of the child with typical developmental milestones and on the clinician’s knowledge of normal variations and nonspecific behaviors often seen in young children. (39)

Nonspecific Behaviors
The presence of restricted, repetitive patterns of behaviors, interests, or activities presents a diagnostic challenge. Rather than being specific for ASDs, these behaviors may occur in typically developing children at certain ages or as part of a set of behaviors common in individuals with moderate-to-severe intellectual impairment. (40) For example, Evans et al found that approximately 60% of otherwise typically developing children between the ages of 2 and 6 years exhibited a variety of compulsive and “just right” behaviors (eg, arranging objects until they satisfy some sensory-perceptual criteria for being “just right”) and repetitive behaviors with insistence on sameness (eg, “prefers the same household schedule or routine every day,” “acts out the same thing over and over in pretend play,” “repeats certain actions over and over,” and “has strong preferences for certain foods”). (41) Similarly, motor stereotypes, which are movements that combine into rhythmic (eg, arm flapping, waving, or shaking; head nodding; fluttering of fingers in front of the face) or complex sequences of motor movements, may be found in children and adults who do not have autistic or intellectual disorders. These behaviors typically begin at 1 year of age and frequently persist into adulthood. A family history of stereotypical movements is noted in up to 25% of such individuals. (42) Of note, motor stereotypes are often indistinguishable in individuals with and without autism. (43)
DIFFERENTIATING LANGUAGE DISORDER, SOCIAL (PRAGMATIC) COMMUNICATION DISORDER, AND AUTISM SPECTRUM DISORDER

Language skills are delayed and disordered in both language disorders and ASD, and children with either disorder may demonstrate immediate or delayed echolalia. The major distinctions between these conditions involve social and imaginative behaviors (Table 4). Children with language disorder display a social drive that is significantly reduced in ASD. Early signs of social drive include spontaneous and sustained affective exchanges with parents and caretakers. Young children with language disorder initiate social interaction by showing and sharing what they see, do, and find (joint attention) and are effective in using nonverbal behaviors to communicate (gestures, facial expressions) until they have appropriate language skills. Their difficulty interacting socially with others is largely due to their limited language skills. As toddlers, children with language disorder engage in imitation and pretend play; in contrast, children with ASD display little or no interest in emulating others’ actions or in playing with toys in a symbolic manner. (44)(45) The child with a language disorder may rely on routines as a means of organizing and understanding his or her surroundings and as a method of transitioning from one activity to another. In contrast, children with ASD engage in stereotypical and repetitive behaviors for the purposes of self-stimulation or relief from stress. The distinguishing factor in the autistic individual is the abnormal intensity or focus of these behaviors. (46) For example, a toddler strongly attached to odd objects (eg, paper clips), or an older child or adult who spends hours writing out timetables is more likely to have ASD than a preschool child who insists on a specific bedtime ritual or who wants to watch certain videos repeatedly.

Children with SPCD resemble those with ASD in some aspects of social difficulty, but they lack the restricted and repetitive behaviors and interests that are seen in ASD. (18)(20) On a more elemental level, children with SPCD have good imagination and pretend play skills and appear to have a desire to interact with their peers, but they lack skills to be effective communicators. In contrast, children with ASD are more aloof and exhibit fewer prosocial and more atypical behaviors than those with SPCD. (33)

CONCLUSION

Differential diagnosis of social and communication difficulties is challenging in the preschool years. Major diagnostic considerations include ASD, language disorder, SPCD, and a variation on normal development. The revisions of DSM-V may help to clarify the distinctions among these disorders.

Few individual symptoms are unique to any specific disorder. Therefore, the child’s symptoms should be considered in the context of his or her profile of cognitive and verbal abilities. In addition, clinicians should consider whether the behaviors of concern may serve a functional purpose in helping the child adapt to his or her situation.

TABLE 4. Comparison of Specific Language Impairment (SLI), Social (Pragmatic) Communication Disorder (SPCD), and Autism Spectrum Disorder (ASD)

<table>
<thead>
<tr>
<th>SLI</th>
<th>SPCD</th>
<th>ASD</th>
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<tr>
<td><strong>Social</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strong interest</td>
<td>• Strong interest</td>
<td>• Little interest</td>
</tr>
<tr>
<td>• Joint attention</td>
<td>• Inappropriate interactions that are not due to deficits in basic language abilities</td>
<td>• Limited/absent joint attention</td>
</tr>
<tr>
<td>• Affective reciprocity</td>
<td>• Limited/absent affective reciprocity</td>
<td></td>
</tr>
<tr>
<td>• Difficulties may be due to deficits in basic language abilities</td>
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<tr>
<td><strong>Play</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Imitation</td>
<td>• Imitation</td>
<td>• Very limited imitation</td>
</tr>
<tr>
<td>• Pretending</td>
<td>• Pretending</td>
<td>• No symbolic play</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Attachment to odd objects</td>
</tr>
<tr>
<td><strong>Routines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No restricted, repetitive patterns of behavior, interests, or activities</td>
<td>• No restricted, repetitive patterns of behavior, interests, or activities</td>
<td>• Rigid and ritualized behavior that does not seem to serve any functional purpose</td>
</tr>
<tr>
<td><strong>Behavior Patterns</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Frustrated because of lack of understanding or inability to communicate</td>
<td>• Frustrated because of lack of success in social interactions</td>
<td>• Stereotypic behaviors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Unusual responses to stimuli</td>
</tr>
</tbody>
</table>
A multidisciplinary evaluation, including comprehensive medical, psychological, and communication assessments, may be necessary for accurate identification of the child’s profile of strengths and deficits in development. However, careful history, physical examination, and behavioral observations may assist the physician in formulating a plan for intervention and serve as a baseline for following the child’s progress. Clinicians should advocate for children to be considered fully eligible for services and interventions based on provisional diagnoses that emphasize their functional and developmental delays. However, refraining from making a specific diagnosis in a young child is prudent while monitoring the pattern of development over time, particularly after he or she receives interventions to address the apparent needs.

Summary

- Based on strong research evidence (1), the prevalence of autism spectrum disorders (ASDs) has increased over the past decade, with a 2010 prevalence of 1:68 (1.5%) in children age 8 years.
- Based on some research evidence as well as consensus (3), the most recent revision of the American Psychiatric Association’s Diagnostic and Statistical Manual (DSM-V) identifies two core dimensions for the diagnosis of ASD: social (social communication and social interaction) and nonsocial (restricted, repetitive patterns of behaviors, interests, or activities).
- Based on some research evidence as well as consensus (3) (31) (32) (33) (34), DSM-V identifies social pragmatic communication disorder (SPCD) as a dissociable dimension of language and communication ability that affects how individuals use language for social exchanges. SPCD is often found in children with language impairments and children with attention-deficit/hyperactivity disorder and other genetic/neurologic conditions.
- Based on strong research evidence (2) (26) (27) (28), childhood language disorders affect 7.4% of kindergarteners, and 50% to 80% of these children experience persistent language, academic, and social-emotional difficulties into their adult years, despite having normal nonverbal cognitive abilities.
- Based primarily on consensus due to lack of relevant clinical studies, differential diagnosis of autism and language disorders may require a multidisciplinary evaluation that takes into account a child’s overall development, including cognitive, communication, and social abilities. Monitoring the response to appropriate interventions and trajectory of development over time may improve the accuracy of diagnosis, especially in very young children.

Parent Resources from the AAP at HealthyChildren.org

- https://www.healthychildren.org/English/health-issues/conditions/developmental-disabilities/Pages/Autism-Spectrum-Disorders.aspx
- English only: https://www.healthychildren.org/English/health-issues/conditions/adhd/Pages/Learning-Motor-Skills-and-Communication-Disorders.aspx
PIR Quiz

1. During an 18-month-old health supervision visit, you notice that a boy does not use any words despite his mother’s deliberate efforts to talk and interact with him. She reports that he has always been a temperamental baby who needs things “just so.” His favorite toy is a small box with which he loves to hit other things repeatedly. After his immunizations, he cries but seemed indifferent to his mother comforting him. Of the following, this history is most suggestive of a child who has:
   A. Autism spectrum disorder.
   B. Language disorder.
   C. Moderate intellectual disability.
   D. Normal developmental variation.
   E. Social (pragmatic) communication disorder.

2. You are seeing a 5-year-old girl for temper tantrums. She gets upset if she does not get her way. Her parents are frustrated with having to guess from her gestures and pointing what she wants. The girl did not combine two words together until 27 months of age. A previous hearing evaluation yielded normal results. An older brother was a “late talker,” but her 3-year-old sister now uses more words and makes longer sentences than the 5-year-old. Of the following, this 5-year-old girl’s history is most suggestive of:
   A. Autism spectrum disorder.
   B. Language disorder.
   C. Moderate intellectual disability.
   D. Normal developmental variation.
   E. Social (pragmatic) communication disorder.

3. You are seeing a 6-year-old girl for behavior problems at school. She is in first grade and functioning at grade level. She wants to make friends but has not been successful. The teacher often finds her playing and pretending on her own during recess. The teacher reports that the girl communicates/interacts well with her. When the girl gets into trouble, her frequent response is, “Sally told me it was OK to do that.” Of the following, this child’s history is most suggestive of:
   A. Autism spectrum disorder.
   B. Language disorder.
   C. Moderate intellectual disability.
   D. Normal developmental variation.
   E. Social (pragmatic) communication disorder.

4. At his day care program, a 2-year-old boy frequently spins around, flaps his arms, falls to the floor, and yells, “Go aipwayne”; he then repeats this very specific ritual. This occurs every day just before routine playtime. Because he is resistant to all efforts at redirection toward another activity, the teacher picks him up and sets him in her lap. He looks at her and smiles. Of the following, this history is most suggestive of:
   A. Autism spectrum disorder.
   B. Language disorder.
   C. Moderate intellectual disability.
   D. Normal developmental variation.
   E. Social (pragmatic) communication disorder.

5. The best Diagnostic and Statistical Manual of Mental Disorders edition 5-based criteria to distinguish autism from language disorder in children younger than 2 years of age is:
   A. Abnormal conversational skills and stereotypic language.
   B. Delay in achieving speech and language milestones.
   C. Failure to form age-appropriate peer relationships.
   D. Impairment in use of nonverbal behaviors.
   E. Ritualistic behaviors and need for routine.

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Mark D. Simms and Xing Ming Jin
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