

Autism Spectrum Disorder in Learners with Blindness/Vision Impairments

Comparison of Characteristics (Revised January 2002)

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Learners with autism spectrum disorder and vision impairments will display a wide variation in skill levels. The assessment team will be responsible to select assessment tools that appropriately determine if the child has Autism Spectrum Disorder (ASD). For example, the team will want to ask:

- what are the child's strengths?'
- what are the child's present levels of educational performance?;
- what strategies have worked and not worked effectively with this child?;
- how does the child communicate?;
- how does the child interact with adults/peers?;
- are there behavior deficits or behavioral excesses?;
- what motivates this child to learn new information?;
- what motivates this child to attend?

The following charts may assist teams by describing characteristics of "typical" development, of development of children who are blind/vision impaired, and of children who have ASD and blindness/vision impairment (ASDVI). These charts highlight the four critical areas associated with ASD.

This information was originally published in **RE:view* in Summer, 1994. The authors updated this information in January, 2002. It is not meant to be exhaustive, nor meant to be used for identification. It can, however, be used to inform and direct the family and the rest of the team for an in-depth look at the possible identification of ASD in children who have a vision impairment.

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Impairments in Communication

| Typical Development | Blind/Vision Impaired | ASDVI |
|---|--|---|
| <p>Make cooing and gurgling sounds (3-6 months)</p> <p>Copy speech sounds (6-12 months)</p> | <p>Process of acquiring speech and language appears to be same for children with VI as it is with typical children, but the slower physical development, more restricted range of experiences, and lack of visual stimulation may cause the child to be slower in language development (Scholl, 1986)</p> | <p>Language develops slowly or not at all</p> <p>Development is frequently "splintered"; language development may or may not be consistent with typical developmental norms or sequences</p> <p>May show no interest in communicating</p> |
| <p>Much jargon with emotional content;</p> <p>Able to follow simple commands (18 months)</p> <p>Vocabulary of 150-300 words (24 months)</p> | <p>Echolalic-short duration</p> <p>If experiences are limited, language may be delayed but is not distorted</p> <p>Responds appropriately to language requests; enjoys communication "give and take"</p> | <p>Exhibit concrete understanding and use of language; experience difficulty with generalizations</p> <p>Echolalic; difficulty breaking this pattern is common. The echolalia often leads to patterns of verbal perseveration with idiosyncratic meanings</p> <p>Experience difficulties initiating and engaging in meaningful conversations. The range of "topics of interest" are narrow.</p> <p>Have difficulty maintaining a topic chosen by others; exhibit limited or no conversational reciprocity</p> |
| <p>Understands most simple questions dealing with own environment and activities (36 months)</p> <p>Relates experiences so that they can be followed with reason</p> <p>May briefly exhibit pronoun reversals</p> <p>Takes part in simple conversations (2-3 years)</p> | <p>Vocabulary is built through concrete experiences</p> <p>Can experience difficulty with abstract language because of limited concrete experiences</p> <p>May have pronoun reversals, but are brief in duration.</p> <p>Concept difficulties are common because of lack of visual model; once understood, concepts can be generalized</p> <p>Language development usually follows developmental norms</p> | <p>Exhibits use of words without attaching the usual meanings</p> <p>Use non-conventional or non-traditional behaviors as a form of communication (gestures, pulling)</p> <p>Long-term difficulties is using pronouns appropriately</p> |

| Typical Development | Blind/Vision Impaired | ASDVI |
|---------------------|-----------------------|--|
| | | <p>Apparent lack of common sense may be overly active or very passive</p> <p>Experience difficulties with abstract concepts, often focus on “irrelevant” information; have literal translation of language; literal/concrete understanding of concepts makes generalizations difficult</p> <p>If verbal, may converse but focus on topic of perseverative interest</p> |

Impairments in Social Interactions

| Typical Development | Blind/Vision Impaired | ASDVI |
|---|--|--|
| Responds to name (6-9 months) | Need to learn a world exists beyond reach; may exhibit social interest through changing or shifting posture (leaning, turning) | Appears not to hear, does not orient toward sound |
| Takes turns while playing with adult (e.g. actions, sounds, facial expressions) (6-12 months) | Engages in social give and take; seeks to share information/experiences with others | Limited social interests, if any Limited understanding of social give and take |
| Makes simple choices among toys Mimic another child's play (18-24 months) | Play is sometimes observed to be less "imaginative", and more concrete, because of the lack of visual model. Redirection of an activity is possible. | Play repetitively; toys often are not used for intended purpose |
| Often indulges in make-believe (48 months) | Because of limited visual references, may have difficulty in observing, organizing, and synthesizing the environment; imitative and make-believe play may be delayed, but can be specifically "taught". Requires a variety of opportunities to learn and to generalize; need feedback to understand and comprehend some social situations | Lack of spontaneous or imaginative play; doesn't initiate pretend play. Perseverative behavior is a problem, and redirection of activities can be difficult |
| Enjoys playing with other children (3-4 years) | Enjoys playing with other children Initiating interactions with adults and children Shows social curiosity; are curious about their environment (e.g. may ask about who may be in the room, where a peer may be, etc) | Prefers to spend time alone rather than with others; peer relationships are often distorted Difficulty initiating interaction Exhibits little social curiosity; may find interactions with others to be unpleasant |
| Able to occasionally use feelings to explain reasons (48 months) | Demonstrates empathy; able to comprehend another's feelings | May treat other people as objects; limited ability to understand another's feelings/emotions |
| Enjoys playing organized games with other children (5-6 years) | Enjoys playing organized games with other children Difficulty in observing, organizing, and synthesizing the environment; requires a variety of opportunities | Often are anxious and uncomfortable in and social situations; prefer to follow routines and rituals. Experience difficulties in adapting to change |
| Demonstrate empathy toward others | Demonstrates empathy; able to comprehend another's perspective | Not aware of other person's feelings, difficulty with perspective taking |

Restricted, Repetitive, and Stereotyped Patterns of Behavior

| Typical Development | Blind/Vision Impaired | ASDVI |
|---|---|---|
| <p>Reach for a toy (3-6 months)</p> <p>Puts in and dumps from containers (12-18 months)</p> <p>Looks at storybook pictures with an adult (18-24 months)</p> | <p>Stereotypic behaviors (rocking, eye-poke) may occur in novel and unfamiliar situations; management of these behaviors can be accomplished with redirection into meaningful activities which provide sensory feedback; child learns to control these behaviors when older</p> <p>Interests may be limited due to limited exposure; demonstrates an interest in a variety of toys/objects once they are experienced</p> <p>Historically, stereotypic behaviors have been attributed to lack of stimulation of the vestibular system. These behaviors occur more in young children, and lessen as the child learns to interact with the environment</p> | <p>Plays repetitively; toys are not used as intended</p> <p>May perseverate on specific feature of toy (spinning wheel on car), or engage in a repetitive action with toys/objects;</p> <p>Interruption of a favorite activity, or of a stimulatory motor behavior (hand flapping, rocking one foot to another) is often met with extreme resistance</p> |
| <p>Helps with simple tasks (2-3 years)</p> <p>Follows two-step directions</p> <p>Uses materials and toys to make things (3-4 years)</p> | <p>Interest may be limited to toys/tasks/objects previously experienced; able to engage in a variety of activities with adults and peers</p> <p>Redirection of an activity is possible; response to changes is more easily possible as experiences occur</p> | <p>Highly restricted interests; experience difficulties in being redirected from high interest toys/objects</p> <p>Exhibits extreme interest with one part of an object, or one type of an object</p> |
| <p>Shifts attention from one person/item/activity to another</p> | <p>Exhibits typical flexibility in managing changes in routine</p> | <p>Challenging behaviors escalate when experiencing changes in routine or structure; demonstrate inflexibility when transitioning between activities</p> <p>Stereotypic behaviors occur throughout life, and are difficult to break</p> <p>Behaviors increase with anxiety and with stressful situations; they can be very difficult to redirect</p> <p>May perseverate on a single item, idea, or person; may demonstrate rigid performance of seemingly nonfunctional routine</p> <p>May show aggressive or violent behavior or injure self; may throw frequent tantrums for no apparent reason</p> |

Responses to Sensory Information

| Typical Development | Blind/Vision Impaired | ASDVI |
|--|---|---|
| <p>Turns head toward sounds (3-6 months)</p> <p>Feeds self with spoon, drinks from a cup (12-18 months)</p> <p>Moves body in time to music (18-24 months)</p> <p>Puts on clothing with a little help (4-5 years)</p> <p>Jumps, runs, throws, climbs using good balance (3-4 years)</p> <p>Tolerates normal range of touch, movement, sounds, smells</p> <p>Attends to relevant stimuli</p> | <p>Poor posture often seen due to lack of visual model</p> <p>Interests may be restricted due to lack of vision; interests expand with experiences</p> <p>Little delay in motor development until the onset of locomotion</p> <p>Child can be easily engaged</p> <p>Lack of visual stimulation, so child often creates own; usually can “redirect” the stimulatory behavior</p> <p>Uses residual senses to gain information</p> | <p>Unusual reactions to physical sensations, such as being overly sensitive to touch or under responsive to pain; sight, hearing, touch, pain, smell, taste may be affected to a lesser or greater degree</p> <p>Unusual postures and hand movements are common; they can be very difficult to redirect</p> <p>Perseveration on various sensory stimuli is common</p> <p>Tactile defensiveness is common, and usually is not overcome with time</p> <p>Often appears not to hear or focus</p> |