

Promoting Language and Literacy Skills in Children with Down Syndrome

Intervention at even very young ages will improve a child's potential for later success

MOST YOUNG CHILDREN BEGIN DEVELOPING LANGUAGE SKILLS AT A RAPID PACE, early in their lives. Children with Down syndrome, the most common known genetic cause of intellectual disability, typically experience delays in language development that persist as they grow older. While several aspects of language, such as speech production and syntax (grammar), are often challenging for children with Down syndrome, other language skills, especially some related to social interaction, often represent relative strengths.

FPG investigators reviewed the existing literature on language skills of individuals with Down syndrome and factors that may influence language development.

Based on this review, FPG published recommendations that emphasize the importance of early and continued language and literacy interventions. Decades of research suggest that individuals with Down syndrome generally follow a consistent language and communication pattern. For instance, most are able to understand more than they can express. Developing clear speech, along with putting words together to form sentences, are some of the most difficult challenges they face.

They may also have trouble elaborating or adding new information to topics of conversation.

These communication impairments, however, coexist with key strengths. Although the first words and sentences of children with Down syndrome may be harder to understand than those of typically developing children, children with Down syndrome understand much of the language expressed around them. Children with Down syndrome can also stay on topic, have relatively good narrative (storytelling) skills when visual (picture) supports are available, and respond to requests for clarification from their communication partners when their messages are unclear. In the area of literacy, they show relatively strong whole-word recognition skills.

What does this mean for people who work with and care for children with Down syndrome? Most importantly, it is essential for parents, teachers, and practitioners to promote speech and language skills from infancy. Because their ability to understand what is being said to them is typically stronger



than their ability to express themselves through language, when speaking to a child with Down syndrome, speakers should base the complexity of their own language on the child's ability to understand. Parents and teachers can naturally reinforce the language skills of a child with Down syndrome by always responding when the child asks for clarification.

Language and literacy interventions for children with Down syndrome should target the following areas:

Early communication—Early intervention is more effective than later intervention. Communication interventions with research support include Responsivity Education/Prelinguistic Milieu Teaching (RE/PMT). This approach teaches young children to use vocalizations, coordinated eye gaze, and gestures through arranging the environment, giving cues, and encouraging parents to be responsive to their child's nonverbal and verbal behaviors. This approach may be very effective for young children who produce few or no words.

Speech skills—There is some evidence that speech skills of children with Down syndrome can be improved through listening and production practice with their parents. For children with severe speech production difficulty, intervention can initially target functional vocabulary such as names of family members and words for basic needs.

Complex language—Conversational “recasting” is one strategy for helping children improve complex syntax skills. In this approach, a communication partner (family member, clinician, or teacher) reshapes a child's utterances by repeating the words or sentences back to the child in a form that includes additional, accurate grammatical information. The use of books that include repetitive examples of complex syntax may also be helpful and may take advantage of the relative strengths in visual processing often seen in children with Down syndrome. Strategies to promote elaboration of conversational topics include using open-ended questions, allowing adequate time to respond, and using topics and materials of interest to the child. Involving other children in language intervention activities for conversational skills may also make use of strengths in social interaction.

Literacy skills—Basic literacy skills such as phonological awareness and whole-word recognition can improve the quality of life of children with Down syndrome by promoting school success and independence, and the ability to be employed in adulthood. Books can also be used to work on developmentally appropriate expressive vocabulary, taking into account current interests of the child, age-appropriate themes, and academic and social needs.

The foundations of language and literacy skills are learned during infancy, and intervention at even very young ages will improve a child's potential for later success. The existing research emphasizes the importance of early—and continued—interventions that focus on language and literacy. ■

To Learn More

CNDP research group website:

<http://projects.fpg.unc.edu/cndp/>

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