RESEARCH HIGHLIGHTS

LEARNING TO TALK

Most children and adults with Down syndrome experience significant difficulty with speech and language skills. Few achieve clear and fluent speech and few can express what they wish to communicate effectively because of delays in learning all the vocabulary and the grammar that they need. In recent years, there has been a large research effort exploring all aspects of speech and language development, from birth to adolescent years in particular.

In a recent paper, Joanne Roberts and colleagues present a comprehensive review of this research, covering phonology (speech), semantics (vocabulary), syntax (grammar) and pragmatics (communication or use of language). Importantly, the authors also consider hearing and oral motor skills which they rightly identify as factors which may influence progress in learning to talk.

This is a very useful review paper, as the authors both review current knowledge and identify the research needed next in each area. The authors provide detailed advice on interventions that may help, stressing the need to manage otitis media and hearing loss, to initiate language intervention early in development, to intervene to increase speech intelligibility, to assess language in different contexts, to specifically target vocabulary, syntax and pragmatic skills, to plan to promote the generalisation of skills learned in therapy so that they are used in many contexts and to make full use of signing or other augmentative communication aids as needed.

Throughout the paper the authors remind readers of the wide range of abilities and disabilities that can occur for children with Down syndrome and the need to plan for individuals while taking account of the syndrome-related expectations.

Sue Buckley

Original research paper

EXCEPTIONAL READING AMONG YOUNG PEOPLE WITH DOWN SYNDROME

It seems unlikely that a child with Down syndrome will have age-appropriate reading skills yet show significant delay on measures of verbal and non-verbal mental age yet this is the pattern reported by Margriet Groen and colleagues in a detailed case study of KS aged 8 years. The paper reports three studies exploring different facets of the reading skills shown by KS.

In the first study, the abilities of KS are compared with a group of 13 other children with Down syndrome who are more able than average and this comparison establishes that KS is reading exceptionally well for a child with Down syndrome. She was the best reader and scored significantly ahead of the rest of the children with Down syndrome on the reading measures even though she did not score ahead of them on verbal or non-verbal mental ability measures.

In the second study, the researchers explore her phonological skills – that is her ability to use letter-sound correspondences and rhyme in a variety of ways – and here her performance is compared with that of typically developing readers. KS demonstrates age-appropriate skills on the majority of the measures showing that she is able to decode words for reading and spelling and does not rely on visual memory and good ‘sight-word’ skills at this point (though other studies do indicate that children with Down syndrome rely on ‘sight-word’ skills for longer i.e. at higher reading ages, than other children[1]).

In the third study, the reading comprehension abilities of KS are compared with those of a group of children who have age-appropriate word reading and decoding skills but some reading comprehension difficulties. KS shows a similar pattern of difficulties in that she has age-appropriate reading comprehension skills when the tasks require literal comprehension – that is, the answers are all transparent in the text, but has delayed comprehension when the comprehension tasks require the ability to make inferences not

Reading seems to be a strength for many children with Down syndrome. Some are now achieving age-appropriate reading skills in later childhood. Discovering what has helped particular individuals progress is important for informing future educational practice.