

Treating Apraxia of Speech for the School-Age Child

Presented by Janelle Stevens, M.A., CCC-SLP
Children's Mercy Hospitals and Clinics
2011 KSHA Conference
September 17, 2011

Overview for Today

- Reading and Language issues for children with CAS
- Social skills concerns for children with CAS
- Voicing errors in child's speech
- Vowel errors in child's speech
- Prosody errors in child's speech

CASANA

- Childhood Apraxia of Speech Association of North America (CASANA) provides education opportunities for SLPs and support services for families of children with CAS
- Information in this presentation obtained from presenters at the 2010 CASANA National Conference

Why do children struggle with literacy?

- Poor phonological awareness
- Lack fluency in word reading
- Less vocabulary, grammar, or text-based knowledge
- Lack effective strategies to relate the text to past knowledge
- Child not given accommodations for issues such as attention, auditory memory, visual processing

Reading Concerns for children with CAS

- Reading abilities relate to language experiences
- Difficult speech inhibits language
- If a child has limited/difficult speech production, child will have limited language
- Less social interaction opportunities leads to less sufficient background knowledge/experience

Factors specific for children with CAS

- Child will have reduced literacy skills because.....
- Phonological processing problems (decoding and spelling problems)
- Language impairments (reading comprehension and written language problems)
- Some children with CAS will have phonological processing problems, most have language problems

More Factors

- A child's sound perception (input decoding) may be impaired
- Early oral language skills do have a relationship to later reading and writing skills
- Motor speech impairment will impact verbal language; however, apraxia of speech does not cause a language delay
- Research at Children's Mercy Hospital indicate that children with CAS have significant difficulties detecting rhyming words and producing rhymes

Comprehension of Text

- A child who has poor comprehension of spoken language may also have trouble comprehending text
- Just because a child can read doesn't mean they "get it"
- Children need experience with story/narrative text as well as expository text

How can we help with reading comprehension?

- Student should be able to paraphrase text
- Help child notice bolded print, tables, headings, etc
- Notice characters, setting, plot points
- Strengthen vocabulary with synonyms, multiple meaning words
- Relate what is read to a personal experience
- Make predictions to what would happen next
- Visualize the text (create mental picture, draw a picture)
- Retell/summarize text for each paragraph

Why These Children Have Social Interaction Challenges

- Fewer early social language experiences
- Less practice of social exchanges leads to less competency
- Child develops a pattern of reduced language initiation and reduced response to others
- Child becomes self conscious with lack of confidence

More Reasons For Social Challenges

- Child may have expressive language and language processing problems
- Child may not be aware of appropriate social expressions for certain social situations
- Limited expressive language will impact pragmatics (greeting, requesting, rejecting, protesting, commenting, expressing emotions)
- Reduced speech intelligibility

How Do We Help with Social Skills?

- Be thoughtful when choosing target utterances
- Target utterances need to be functional with communicative power
- Provide a wide range of communicative functions (reflect school, home needs)

Considerations for Choosing Targets

- Teach target utterances in context of functional and playful activities (reflect experiences child has at home/school)
- Role play the verbal exchanges
- “Real life” activities include birthday parties, playground activities, lunch, playdates, restaurant

Practicing the Social Skills

- Pre-teach vocabulary and phrases that are helpful for specific experiences
- Address social interactions that are less structured
- The child should practice these social exchanges with SLP then expand with others

Social Expectations

- Work on setting behavior expectations as you would a typical child
- Work on sharing, turn-taking, manners, etc.
- The SLP and classroom teacher should supervise the social activities

Working on Special Issues: Vowels

- This is the most important target early in the therapy process especially for severe CAS
- Vowel errors will have a significant impact on speech intelligibility
- Most children with CAS will have vowel distortions, not substitutions

Addressing Vowel Errors

- The vowel configuration will change depending on the sounds before or after the vowel
- A child with CAS has difficulty achieving articulatory configurations and transitioning into and out of these configurations

Working on Special Issues: Voicing

- Voicing errors occur in children with CAS due to Voice Onset Time error
- VOT is the release of a plosive sound to the beginning of the vocal fold vibration
- We work on this in therapy after the child has a core functional vocabulary and increased phonemic inventory

Therapy for Voicing Needs

- Use minimal pair words for teaching and for practice (pea/bee, do/two, sue/zoo)
- Use a term such as “turn voice on/off” for a verbal cue

It's All About Movement

- Children with CAS have difficulties with the specification of movement and parameters of movement
- You are helping the child move lips and tongue and jaw for correct production
- Practice needs to focus on making movement transitions

Working on Special Issues: Prosody

- Prosody is the stress, intonation, and rate-rhythm of speech
- Lexical stress is the word/syllable level (base ball)
- Sentential stress is the phrase/sentence level (I want that)
- Intonation is the pitch change in speech
- Rate-rhythm is the timing patterns in speech

Working with Prosody

- Prosody errors occur in children with CAS due to programming errors or effort for speech accuracy override prosody ability
- Prosody errors significantly impact speech intelligibility
- Need to address this at the very beginning of your therapy program

How to Treat Prosody in Therapy

- Focus on the length of the syllable
- Use visuals such as arm gestures and writing lines with your finger
- At the phrase level, gradually build to normal rate and vary intonation
- With older kids, look at lexical stress with bisyllabic and multisyllabic words
- Start with imitation and move to self generated sentences

List of Word for Lexical Stress

- | | |
|-------------|------------------|
| • Baseball | • America |
| • Banana | • Responsibility |
| • Tomorrow | • Absolutely |
| • Canoe | • Produce |
| • Water | • Contract |
| • Cafeteria | • Combine |
| • Balloon | • Record |
| | • Permit |

Lexical Stress (syllable)

- Increase the length of the stressed syllable
- Increase the pitch of the stressed syllable
- Increase the loudness of the stressed syllable

Examples of Sentential Stress (word within a sentence)

- What will you give to me?
- "I'll give the book to you"
- Who will give the book to me?
- "I'll give the book to you"
- Who will get the book?
- "I'll give the book to you"

Professional Presenters

- David Hammer, MA, CCC-SLP
- Shelley Velleman, PhD, CCC-SLP
- Amy Meredith, PhD, CCC-SLP
- Ruth Stoekel, PhD, CCC-SLP
- Edyth Strand, PhD
- Kathy Jakielski, PhD, CCC-SLP

CASANA Contacts

- Website: www.apraxia-kids.org
- Information available for professionals and parents
- Lists professional learning opportunities
- Lists relevant research articles
- Lists support groups available nationwide

Words of Wisdom

- “We ourselves feel that what we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop.” Mother Teresa
- “Act as if what you do makes a difference. It does.” William James
- “Nothing is impossible, the word itself says, ‘I’m possible’”. Audrey Hepburn
