Big Questions on Clear Speech and Effective Treatment

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About

Thomas Center for Down Syndrome

- Evaluations & treatment planning based on best practices and standard of care
- Education and advocacy
- Transition planning
- Care coordination, support, and assistance throughout childhood
The Big Questions

Messages...
What messages are we sending to:
- Our children (including those without DS)
- Our family members
- Our friends
- Our communities
- The world at large

"Differences are not intended to separate, to alienate. We are different precisely in order to realize our need of one another"
Desmond Tutu
Influences

- Biological
- Medical
- Social/Culture
- Family
- Other?

Importance of Strengths

- Use strengths to encourage learning
- Bridge the gap between comprehension and verbal expression
- To understand what supports to use in order to bypass difficulties
- What are your strengths?

While children with Down syndrome have similar ways they learn to listen, learn, and talk -

Each child has his or her own path.
Speech in Children with DS

How Does Speech Develop?

Phonological development
Phonetic development
Phonotactic development
Clarity or Intelligibility

Sign Language

- Dual modality (sign and speech) recognition of vocab words
  Raining Bird, 2000
- Sign is an unaided system and involves direct communication with turn taking and eye contact
  Clibbens, 2001
Speech Banana

Diagnosis → Treatment → Outcome

Types of Speech Disorders

- Articulation/Functional
- Phonological
- Apraxia & Fluency
Speech Disorders

- In children with Down syndrome speech disorders may be related to:
  - Structural differences in the mouth
  - Persistent ear infections or fluid-filled ears
  - Other health problems that interrupt development

How to Choose Therapies

“...There has to be as solid a scientific basis as possible, based on well-grounded theory and good quality research, for any approach, technique or "tool" to be used in therapy.”

Caroline Bowen, PhD

Evidence Based Practice

Adapted with permission from Newhouse et al., 2005, Journal of Nursing Administration
Traditional Therapy?

- What is "traditional" therapy?

Evaluating Treatment Tools

"In our quest to help ... we are always looking for the newest and best treatments...
Although many of these treatments are valid and have potential use, many others advertised may not live up to their promised result."

ASHA Leader, July 5, 2011

Speech Based Disorders Diagnosis

- One or a few sound errors
- A child may substitute the "y" in the word yes with a /w/ changing the word to "wes"
- Even a few errors may make it hard for people to understand your child
Speech Based: Cause

- Largely unknown
- Is different from dysarthria (muscle weakness), apraxia (muscle coordination), or phonological disorder

Speech Based: Treatment

- Treatment:
  - Show how to produce the sound correctly
  - Teach the child to recognize correct and incorrect sound productions
  - Practice sounds
  - Practice & play
  - Transition

Language Based Disorders

- This disorder is related to the rules of speech production
- Children naturally simplify speech as they are learning to talk – this is called using phonological processes
- Eventual replacement of this child-like form in typical development
- Continued use of processes may lead to a phonological disorder diagnosis
Language Based Disorders

- Not related muscle weakness or poor coordination
- Difficulty organizing sounds and understanding the rules that govern their production
- Ultimately a language problem
- Techniques that focus on strength or coordination often prove ineffective when trying to improve speech accuracy

Language Based: Treatment

- Therapy targets each process or class of sounds
- Starts with group of sounds that mature or are established first

Motor-Speech Based

- Childhood Apraxia of Speech (CAS)
- It is not due to muscle weakness
- Brain has difficulty planning the movements of the muscles that create speech
- Other signs of CAS include:
  - Limited consonant and vowels
  - An appearance of 'groping' movements
  - Inconsistent sound errors that are not the result of immaturity or other speech disorder
On CAS in DS

"...the speech disorders reported here are not wholly accounted for by phonological delays/disorders or hypotonicity and the children do present with difficulties in motor planning and programming..."

Cleland et al., 2010

Motor-Speech: Treatment

1. Plan
2. Sequence
3. Coordinate

Motor-Speech: Treatment

- Strengthening exercises are ineffective for CAS treatment
- Frequent practice of speech transitions: moving from syllables to specific word structures or combinations
- Multi-modality: auditory, visual, & tactile cues helpful
Stuttering/Cluttering: Diagnosis

- Disruptions of speech sounds, also called disfluencies
- Most people produce brief disfluencies from time to time
- Number and types of speech disfluencies produced in various situations

Stuttering/Cluttering: Treatment

- Teach specific skills or behaviors that lead to improved oral communication
- Control and/or monitor the rate at which they speak
- Learn to start saying words in a slightly slower and less physically tense manner
- Transition to different situations
- Follow-up sessions to maintain skills

Oral Motor Update

- Continued use despite evidence showing its ineffectiveness
- Easy, step-by-step, “doing something”
- Research update on oral motor
Practical Ideas

- Car time
- Daily routines
- Brag books (!)
- Game time
- Containers
- Phone
- Echo Microphone

More BIG Questions

“How old is too old for therapy?”

- Considerations
  - Hearing status
  - Motivation
  - Motivation
  - Stimulability
  - Ability to work on communication strategies
  - Motivation
  - Family support
  - Frequency and duration of therapy
Alternatives to Speech

What if the words don’t come?

I want

Alternative Communication

- Augmentative Communication (AC or AAC)

- Will AC prevent speech from developing?

- Benefits of AC or other forms of assistive technology

Questions
Contact

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Big Questions on Clear Speech and Effective Therapy
Resource Handout

DSG: Keys to Success
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Speech Therapy Ideas, Apps, and Resources:

- Childhood Apraxia of Speech: Definition and Resources: http://www.asha.org/public/speech/disorders/ChildhoodApraxia.htm
- Choosing a New Product or Tool: http://www.asha.org/Publications/leader/2011/110705/Buyer-Beware--Choosing-New-Products-or-Treatments.htm
- Mommy Speech Therapy: http://mommyspeechtherapy.com/?s=development&x=0&y=0
- Podcast Interview with ASHA Fellow, Dr. Gregory Loff on Oral Motor Therapies: http://www.conversationsinspeech.com/?p=104
- See and Learn Sounds & Speech: Apps for speech starting at the single sound level from Down Syndrome Education: http://www.seeandlearn.org/en-us/
- Speaking of Speech (IEP Goal Bank): http://www.speakingofspeech.com/
- Speech Banana: http://talk-ds.org/2010/05/03/may-is-better-hearing-and-speech-month-talking-about-hearing-and-down-syndrome/
- Stuttering: http://www.asha.org/public/speech/disorders/stuttering/#d

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