

Treating Cluttered Speech in a Child with Autism: Case Study

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I. CLIENT BACKGROUND: Claudia

2/2006, CA 3-1

- Initial diagnosis-significant phonological disorder, severe receptive & expressive delay
- Group speech/language therapy through school district
- Individual therapy at Fontbonne began 1/2008

1/2009, CA 6-1

- Mother reports speech continues to be highly unintelligible
- Peers do not understand Claudia's speech, avoid her
- Re-evaluation at Fontbonne:
 - Mild speech sound disorder, poor speech intelligibility
 - Predictive Cluttering Inventory (Daly, 2006)- characteristics consistent with cluttering

3/2009, CA 6-3

- Educational testing confirms diagnosis of mild autism.

II. CLUTTERED SPEECH

- Cluttering - a fluency disorder in which:
 - Speaking rate apparently exceeds ability to effectively manage
 - May see disfluencies, poor prosody, inappropriate coarticulation (St. Louis, Myers, Bakker, & Raphael, 2007)
- Often co-exists with other disorders
- Diagnosis usually after age 7
- Claudia presents with:
 - cluttered speech co-occurring with speech & language deficits
 - autism
- Poor self-regulation seen in those with autism and in cluttering
 - address self-regulation for children with autism and features of cluttering (Scaler Scott & Ward, 2008)

III. REVISING CLAUDIA'S TREATMENT

1) Rationale

- Poor speech intelligibility primary concern of family
- Clients who clutter often treated for other disorders; miss opportunity to address speaking rate (St. Louis, 2009)
- client highly motivated to interact with others
- Given diagnosis of autism:
 - Make treatment more concrete
 - Design cues to assist her in self-regulation

2) Based on this, decided to:

- Change focus to speech rate paired with attention to listener feedback to assist Claudia in regulating her speech more effectively.
- Resume other speech/language goals after intelligibility stabilized.

A. Goal Sequence: (phased in over time)

1) Establish “Clear Speech”

“Talking so others understand all of your words”

→ 2) Establish eye contact

Facilitate attending to listeners.

→ 3) Produce repairs following natural cues

“Huh?”, “What?”, shoulder shrug, quizzical looks

→ 4) Use complete utterances

Unclear: deletions LI-, rate-related or both?

→ 5) add speech/language goals

gradually:

production of voiced “th”

turn-taking

clear reference

B. What counted as “clear speech”?

1) All words understood when context known

2) Errors allowed

- Sound or word deletions
- Phoneme errors
- Grammatical errors

3) Examples

- Acceptable: “I not going there”
- Not acceptable: “He showing xxxx dog”

C. Cues to Establish Target Behaviors

1) Clear Speech

- Direct verbal cues – “Use clear speech”
- Specific feedback – “I understood all of the words”, “That was clear speech”

2) Eye contact

- “Look at my face”, “I like to see your eyes”
- “I can tell you are talking to me when you look at my face”

3) Response to natural cues for repair

- Natural cue paired with direct cue, initially

4) Use of complete utterances

- Identify missing words in written sentences, then in clinician’s speech
- Requests for repair: “I heard you say ‘dog in bed’. Tell me all of the words” or “Say all of the words”

IV. PROGRESS IN THERAPY

May 2009

- Intelligible single sentences of 4-8 words in length 78% of time, scripted activities; frequent verbal cues.

December 2009

- Intelligible single sentences 70% of time in structure play, verbal reminders.
- Repair speech 73% of occurrences when cued 'huh' or 'what'.
- Identified missing function words in written sentences 65% of attempts.

May 2010

- 1-2 intelligible utterances per turn 70% of time; semi-structured activities occasional verbal cues.
- Appropriate eye contact 5 times within a 15 minute period with verbal cues.
- identified missing function words 50% in clinician's speech with verbal cues.

November 2010

- 2-3 intelligible utterances/turn 77% of time; imaginary play, cues.
- Appropriate eye contact 5/10 opportunities without cues.
- Repair unclear speech 100% following direct or natural cues.
- complete sentences 50% of attempts; structured activity; cues.
- Correct use of voiced 'th' in short sentences 78% of attempts.

V. SUMMARY

1) Progress made in establishing 'clear speech'

- Connected speech samples show increase in per-word intelligibility
 - 11/09 - 95% intelligible, structured activity
 - 1/10 - 90% intelligible, answering questions, unstructured
70% intelligible, story telling, wordless picture book, unstructured
 - 11/10 - 92% intelligible, pretend play, unstructured
- Mother reports that Claudia is easier to understand:
 - At home
 - By grandparents and other adults
 - At school by teachers and peers

2) Continue treatment to:

- promote intelligibility in all speaking situations
- Remediate additional speech & language deficits

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