A Multi-Dimensional Approach for the Treatment of School-Age Stuttering
The Center for Stuttering Therapy
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Working with Children Who Stutter in the School Setting
Advantages
– Provides the child with consistent support in a very important environment
– School SLP has consistent teacher contact
– More opportunities for group therapy
– Excellent setting for transfer and maintenance
Limitations
– Limited contact with parents
– Limited one on one contact time with the child
– Increased vacation/therapy breaks

What makes therapy successful?
• Zebrowski
  • 40% of change is attributed to what the client/family bring to therapy
  • 30% of change is attributed to what the clinician brings to therapy
  • 15% is attributed to the techniques and strategies employed for change
  • 5% is the result of an “expectation for change”
The Clinician’s 30%

• Understanding the diagnostic process
• Understanding the basic components of therapy
• “How” we teach, reinforce and strengthen therapy techniques is just as important as “what” we teach
• Being comfortable with stuttering
• Being empowered and passionate
• Sending the message to the child that we know how to help

Assessing School Age Stuttering

• Formal Measures
  – Test of Childhood Stuttering (TOCS) Pro-Ed, 2009
  – Riley Stuttering Severity Instrument (RSSI-4) Pro-Ed, 2008
  – Standardized District Rating Scales

Bennett (2006)

• Describes assessment of fluency as a “detailed, thought-engaging process” where the goal of assessment is “to understand thoroughly the client’s speech behaviors, thoughts, and feelings”
In Addition to Formal Testing:

• Important Questions to Answer
  – What is the child doing physiologically when he is stuttering?
  – How is the child reacting to moments of stuttering?
  – What role do the child’s attitudes and emotions play in the severity of his stuttering?
  – How do parental attitudes and beliefs impact the child’s stuttering?

Assessing for Treatment Planning:

• Information obtained during your assessment should help you determine:
  – Which fluency shaping strategies to employ
  – The need for modification strategies
  – The focus of working on attitudes and emotions with the child
  – The need for and extent of parental education and counseling

Assessing Physiological Components

• What is the child doing with his speech system that is interfering with smooth, fluent speech production?
  – Breathing Components
  – Voicing Components
  – Articulatory Components
Breathing Components

- Assess for
  - Clavicular breathing
  - Irregular/aperiodic respiratory cycles
  - Audible exhalations
  - Gasping
  - Talking on exhausted breath
  - Excessive air pressure

Vocal Components

- Assess for
  - Hard vocal onset/glottal attacks
  - Dysrhythmic phonation
  - Laryngeal blocking
  - Changes in pitch/loudness
  - Difficulty maintaining phonation
  - Vocal fry

Articulatory Components

- Assess for
  - Hard articulatory contacts on plosives
  - Articulatory blocking
  - Difficulty making articulatory transitions
  - Reduced articulatory movement
Assessing the Child’s Reaction to Stuttering

- How is the child coping with the threat and experience of stuttering?
- How is negative emotionality impacting the child’s stuttering?
- Is the child struggling & tensing during stuttering moments?
- Child may avoid or postpone stuttering
- May exhibit fear, shame, humiliation

How do we assess reactions to stuttering?

- Observe the child when they are speaking, look for secondary behaviors, struggle and tension, and avoidance
- Discuss with the child how he reacts to moments of stuttering
- Use worksheets and pencil and paper tasks

Assessing Attitudes and Emotions

Chmela & Reardon (2001) and Murphy (1999)

- How does the child feel about his stuttering?
- How do these attitudes and emotions impact the child’s stuttering?
- How does the child perceive others’ reactions to his stuttering?
Talking with kids about stuttering

- Bennett (2006) suggests *funneling* when talking with kids about stuttering
  - General discussion
  - Talking about the child’s interests
  - General discussion about speech experiences
  - Discussions about stuttering
  - Discussions about the child’s stuttering and examples of strategies used

Basic Therapy Components

- Combining Fluency Shaping and Modification Therapies
- Using an Increased Length and Complexity of Utterance Framework
- Using Modeling and Reinforcement
- Teaching Self Monitoring Skills
- Transferring and Maintaining New Speech Skills

Combining Fluency Shaping and Modification Therapies

- Diametrically opposed philosophies
- Fluency shaping helps the child produce more fluent speech through the use of compensatory techniques. These techniques are chosen based upon what the child is doing physiologically when he stutters.
- Modification teaches the child to stutter more easily, change moments of stuttering, and reduce avoidance. These strategies are dependant upon the degree the child is negatively reacting to his stuttering.
- The ratio varies from child to child, and will change over time.
Guidelines for Practice in Stuttering Treatment (1995)

- Suggests when treating stuttering that "management goals include fluency shaping strategies (recommended for reducing the frequency of stuttering behaviors) and stuttering modification strategies (recommended to reduce the abnormality, severity and duration of stuttering behaviors)"

Using Increased Length and Complexity of Utterance

- Based upon GILCU (Ryan, 1984); ELU (Costello, 1980)
- Children stutter more on longer, more complex utterances (Riley & Riley, 1983)
- Strategies are first taught at the single word level and progress through conversation
- Provides immediate success in therapy
- Allows maximal productions early in therapy
- Imitative responses followed by spontaneous
- Use a "Fluency Staircase"

Use of Modeling and Reinforcement

- Clinician models techniques throughout therapy.
- Provides a model of fluency as well as better stuttering.
- Positive reinforcement is important to strengthen new behaviors, both in the production of fluency and better stuttering behaviors.
Teaching Self Monitoring Skills

- Self monitoring helps the child better “stay in the moment”
- Must be able to identify rapid rate, tension, and disrupted speech to make appropriate changes
- The child needs to understand his reaction patterns and how they impact his stuttering

Transfer and Maintenance

- Transfer should occur across people environments, and situations
- Develop a transfer hierarchy
- Group therapy
- Maintenance should occur over time with the gradual reduction of therapy time/visits

Setting Therapy Goals

- Goals should be functional
- Child should take part in goal setting
- Goals should be more about communication than fluency
- Help the child be realistic about goals and scaffold when possible
- Some goals may not be measurable (reduction of fear, increased risk taking)
Therapy Components and Treatment Planning

Education
Fluency Shaping
Modification
Attitudes & Emotions
Parent Counseling

Education

• Important first step in therapy
• Dell (2000) “We want the child to know what happens and what it feels like when he has these blocks and to recognize that he can do something about them”

Understanding Stuttered and Fluent Speech Production

• Garden Hose Analogy (Conture, 1991)
• Diagrams and pictures of the speech system
• Gear system (Walton, 2013)
• The House that Jack Built (Bennett, 2006)
• The Speech Machine, (Chmela 2004)
• Teach the child important terminology for therapy
Identifying Stuttering

- Identification of stuttering behaviors in the clinician’s speech
- Identification of stuttering in the child’s speech
- Duplicating real stuttering (Dell, 2000)
- Comparing hard and easy productions in diads/triads (Ramig & Dodge, 2005)

Fluency Shaping Components

- Help the child produce more fluent speech
- Therapy is structured around an “easy speech framework” (Williams, 1979)
- Main technique is stretching
- Other techniques are introduced if specific stuttering behaviors persist such as hard vocal onset, hard articulatory contacts or difficulty maintaining voicing

What fluency shaping strategies can we teach children?

- Stretching (easy speech)
- Easy voice (easy onset)
- Slides (soft articulatory contacts)
- Hooking-on (sound blending)
- Voice-on (continuous voicing)
- Big Speech (over-articulation)
Stretching (Easy speech)

- Slight elongation of the first part of a word or phrase (stretch through the first transition)
- Child uses stretches at the beginning of utterances
- Helps to slow rate, reduce air pressure, and allow transitional movement
- Stretching may be the only technique the child needs to improve fluent speech
- Focus on the use of stretches at the beginning of phrases in conversation (chunking and phrasing)

Easy Voice

- “Easy onset” (Perkins, 1984)
- Appropriate for the child who exhibits laryngeal blocking and has difficulty initiating/maintaining airflow and voicing
- Enables the child to initiate voicing by reducing sub-glottal air pressure and gently initiating phonation
- Reduces laryngeal blocking, laryngeal tension and helps the child maintain voicing

Suggestions for Teaching Easy Voice

- Airplane-Rocket Ship Analogy: helps the child to reduce sub-glottal air pressure
- Easy voice drills: sustained /ah/
- Single word production of words beginning with vowels
- Contrast drills: hard / easy
Slides

• “Soft articulatory contacts” (Van Riper, 1971), (Wall & Meyers, 1982)
• Appropriate for the child who exhibits articulatory blocking (and/or articulatory tension in the production of /p,b,t,d,k,g/.
• Changes manner of production from plosive to fricative by maintaining airflow throughout the production
• Stresses reduced oral tension and constriction of the articulators

Suggestions for Teaching Slides

• Begin at sound level and move to single words
• Exaggerate productions so the child can feel the airflow and voicing
• Gradually introduce into longer utterances
• Contrast drills: hard / easy

Hooking-On

• “Transitional movement and sound blending” (Perkins, 1984)
• An airflow skill that is used to “close the gap” between sounds and words
• The blending of one sound smoothly into the other allows for no breaks in airflow and voicing
Suggestions for Teaching Hooking-On

- For use with children who have difficulty maintaining voicing or who stop their voice before hard words
- Practice first in two and three word utterances
- Practice hooking-onto hard words

Voice-On

- Continuous Voicing
- For use with children who exhibit:
  - excessive laryngeal tension
  - disrupted breathing patterns (such as inspiratory gasping, asynchronous breathing, and audible exhalations)
  - choppy or fragmented speech
  - excessive pausing
  - bursts of phonation

Suggestions for Teaching Voice-On

- Contrasting disrupted and continuous phonation
- Droning
- Chunking and phrasing
Big Speech

- “Overarticulation”
- For use with children who mumble, have jaw clenching, or who speak with little movement
- Zimmerman (1980)
- Encourages the child to speak more deliberately to increase sensory feedback by requiring him to speak with more deliberate movement and jaw opening (which automatically reduces speech rate).
- May teach at any level of therapy

Modification Components

- (Van Riper (1973), Dell 2000)
- Enables the child to develop better coping strategies
- Desensitizes the child
- Reduces negative emotionality
- Reduces secondary behaviors, avoidance and struggle and tension
- Increases a sense of control over stuttering
- Gives the child tools to change real moments of stuttering before and during its occurrence
- Encourages the child to be “good” at stuttering

Who Will Benefit from Modification Therapy?

- The child who:
  - Exhibits struggle and tension behavior which is negatively impacting the severity of the stuttering.
  - Anticipates stuttering (thinks he is going to stutter before he actually does).
  - Is avoiding words (circumlocuting, substituting or not talking) or situations (using the phone, introducing himself, or doing things with friends)
  - Exhibits fear when talking.
  - Uses linguistic secondary behaviors such as fillers (ah, um), starters (Well, you know) or postponements (delay in saying a word) to delay stuttering.
Desensitizing the Child

Dell (2000) suggests:
- Clinician should proceed at a slow pace to build trust with the child
- Direct, gradual, and successful confrontation of stuttering (talking about it, listening to it)
- Putting it back in our mouths (by stuttering easily on purpose or by stuttering in a harder way) will allow the child to toughen themselves to the experience of their stuttering.
- The main goal of desensitization therapy is to prevent the child from reacting to their stuttering through avoidance or tension.

Activities and Techniques for Desensitization

- Clinician modeling of stuttering behaviors
- Clinician modeling of self-corrections
- Catching stuttering (identifying stuttering in the clinician and child’s speech)
- Purposeful stuttering
- Contrasting Hard and Easy Speech

Easy Bouncing

- Bouncing is the easy, effortless repetition of words and parts of words, (usually 2-3 repetitions per instance) which gives the child the experience of controlled, tension free stuttering.
- “When the child stutters on purpose in an easier way, they learn that it is possible to have control over it at times” (Guitar, 1998).
- As the child experiences stuttering free of struggle and tension, their patterns will begin to change to better, less forced stuttering.
Pushing On Purpose

• Negative practice (Van Riper, 1982)
• Can help reduce or eliminate negative behaviors in the child's speech by increasing the child's awareness of what they are doing when they stutter.
• Putting more “real-like” stuttering back in his mouth will help the child feel the effect pushing and tensing have on exacerbating the severity of his stuttering.

Modifying Stuttering

• Variation of real stuttering (Van Riper, 1973; Dell, 1979), such as slowing down, easing out of, or changing moments of real stuttering allows the child to experience feelings of increased control over their speech.
• Modification procedures work best for children when they are kept simple.

Modification Techniques

• Variation
  – The child will insert a different behavior, such as a bounce in place of a block
• Pull Out
  – The child will hold onto tension, reduce it, and move forward through the word
• Cancellation
  – Following a moment of stuttering the child will immediately say the stuttered word fluently
Working with Attitudes and Emotions

• Thoughts on Dairy Queen…
• Encourage the child to talk about stuttering
• Focus of therapy should be on the child first
• Empower the child over their stuttering
• Teach the child how to self-advocate
• Pair up with other kids who stutter
• www.Friendswhostutter.org

Suggestions for Working on Attitudes and Emotions

• Speech Rings
• Pen and Paper Tasks
• Drawings
• Stories

Writing IEP Goals

Identify:
• Treatment technique
• Level of the language hierarchy
• Communicative environment

Sample:
• Student will use stuttering modification techniques at the multiple sentence level during structured therapy activities with 90% accuracy.
Multiple disabilities: When do we prioritize fluency?

- ADHD
- Oral Motor
- Language
- Phonological/Articulation Disorder
- Autism

Parent Counseling

- Educate the parents about stuttering and the therapy process
- Deal with guilt, anger, and frustration
- Encourage open discourse at home about stuttering
- Talk about what’s “right” with the child
- Monitor for increased focus on fluency and use of speech tools at home

Working with Teachers

- Educate teachers about stuttering
- Provide suggestions for classroom management:
  - Talk to the child about his stuttering
  - “What can I do to help you in class?”
  - Have the children do choral reading
  - Provide opportunities to do oral presentations in private
  - Manage teasing
  - Make arrangements to call on the child only if his hand is raised
  - Classroom presentations on stuttering
Doing a Classroom Presentation on Stuttering

- What is stuttering?
- Famous people who stutter
- What do we do in therapy?
- Teach the children how to stutter on their names
- Bring treats!
- Watch “Stuttering for Kids by Kids” (SFA)
- How the children can be the best listeners

- What should I do about the child who does not want to be in therapy but needs to be? Or the child whose parents want him to be, but the child doesn’t?

Helpful Resources:

- Stuttering Foundation of America
  - [www.stutteringhelp.org](http://www.stutteringhelp.org)
    - DVD “Stuttering for Kids by Kids”
    - DVD & Booklet “Stuttering: Straight Talk for Teachers”
    - DVD “Working with Attitudes and Emotions” by Kristen Chmelka
    - DVD “Therapy Strategies for School Age Children Who Stutter”
    - DVD “Working with Teens Who Stutter”, Zebrowski
    - Workbook “Working with Attitudes and Emotions” by Chmelka & Reardon
    - Booklet “Trouble at Recess”
Resources:

- “Treating the School Age Stutterer”
  - Carl Dell, 2000, Stuttering Foundation
- “Focus on Fluency”
  - Kristen Chmela, 2004, Super Duper
- “Fun with Fluency”
  - Walton & Wallace, 1998, Pro-Ed
- “Fun with Fluency for the School-Age Child”
  - Walton, 2013, Pro-Ed

Specialty Board on Fluency Disorders

- Pilot Program in Colorado to find interested school based SLP’s to function as the “fluency specialist” in their districts.
- Training and support will be provided
- Contact Patty @ paw7757@aol.com

References

- Dell, C.W., Jr., & C.W. Dell, 2000, Stuttering Foundation of America.
References

- Walton, P. (2013). Fun with fluency for the school-age child. Austin, TX: PRO-ED.