

## Alleviating Challenges Faced by School Age Children Who Stutter

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## My Professional Life Had Been Misdirected Van Riper



*As I neared the end of a long career in speech pathology it became evident that my professional life had been **misdirected**.*

- I had concentrated my efforts on relieving stuttering in the adult rather than in children.
- This I regret for I was wrong--**dead** wrong.
- **In the early 1950s, Philip Glasner had said.**
- *"You should be working exclusively with young stutters*
- *to **prevent or to reverse the morbid** growth of the disorder*
- *rather than to treat it after it has become **full-blown**."*

Van Riper, Dell & Readon-Reeves, 2008

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## "As a boy, I was a very severe stuturer" Van Riper

- "I had **awful blockings**, struggling so badly that I looked like an **epileptic**
- People would **slap me across the face** to get me out of it."
- "The attitudes of society toward people with speech defects were **crude** back then. Their treatment was **reprehensible** when compared to today's standards."

Times,1990

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### Stuttering is Not a Low-Incidence Disorder

- There is belief that stuttering is a low-incidence disorder
- 80% of preschool CWS recover before age 5, and **20% continue to stutter** (Yairi & Ambrose, 2005)
- The lifetime incidence of stuttering is **8%** (Yairi & Ambrose, 2013)
- Many CWS avoid words or speaking situations (Coleman & Yaruss, 2014). They use circumlocutions and word substitutions, change sentence structure
- They are misdiagnosed and underserved

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### Perceived Severity of Stuttering in Children

- Jeffrey - frequency
- My stuttering was really mild because I *didn't stutter very often*.
- Chris - intensity
- My stuttering was pretty **severe** because I *struggled* a lot.
- Jane - duration
- My stuttering was **severe** because the stutters **lasted so long**.
- Nancy - different types
- My stuttering was pretty severe because I stuttered in such different ways sometimes *repeating*, sometimes *prolonging*, sometimes with *silent blocks* when I *couldn't even get my voice started*.
- Marshall -neg. feelings were worse than his stuttering
- My actual stuttering wasn't too bad, but it seemed *awful* because I was such a *nervous wreck*. I was *afraid, nervous, worried and anxious*.
- Billy - guilt and shame
- I *hardly ever stuttered* because I was able to *hide* it. But I *felt miserable and guilty and ashamed*, even though my friends hardly ever saw me or heard me actually stutter. I *hate* that I have to try to hide it all the time.
- **The degree of stuttering may not be relevant to the negative experiences** Hood, 2014

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### Challenges from Preschool to University

- Negative peer reactions
- Ignoring, interruptions
- CWS show frustration and anger
- Difficulty maintaining attention
- Control emotions and behavior
- Pressure to conform to group norms
- Need for peer acceptance
- Fear of speaking, anxiety
- Difficulties talking to strangers
- Communication apprehension

O'Brian et al, 2011

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### Multidimensional Impact of Stuttering on the Educational Process

- A limited ability to verbally address teasing
- Difficult to understand
- Perceived as a “slow learner”
- They do not speak in class
- ▶ Avoid coming to school on days when they are required to talk
- Don’t ask a teacher to clarify a misunderstood idea
- Difficulties with school work
- Some drop out from school prematurely
- Negative attitudes to school

O'Brian et al, 2011; Ribbler, 2006

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### SLP Need to Address

- Participation in classroom discussions
- Oral presentations
- Oral reading fluency
- Refusal to participate in cooperative learning projects.
- “Passing,” but do not reach their potential.
- “I don’t know,” when they actually do know

Ribbler, 2006

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### Covert Stuttering

➤ **I've Got a Secret – And It's Scaring Me to Death!**

- Fluency was rewarded; stuttering was stigmatized
- *Slow down...*
- *speak more clearly...*
- *think before you speak...*
- *try harder*
- *You can do better*
- *Your future is counting on it*
- *Stop the stuttering or consequences will follow*
- *Work harder, longer, smarter*
- *You CAN overcome the stuttering. We've seen you do it*
- I thought that **I have a choice**
- **Stuttering is MY fault.**
- **Art of deception- avoidance**
- **“Kiss of death”**

Hood & Roach, 2001

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### Comprehensive Assessment and Treatment for School-Age Children



How to ensure that all aspects of stuttering are addressed?

- ASHA views treatment and assessment of fluency disorders in the context of the **World Health Organization** (WHO, 2001)
- An International Classification of Functioning, Disability, and Health (ICF) is a framework for assessment and treatment of school-age children :
  - *Assessment*
  - *Goal setting*
  - *Treatment planning*
  - *Outcome measurement* <http://www.asha.org/Practice-Portal/Clinical-Topics/Childhood-Fluency-Disorders/Treatment>

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### Negative impact of stuttering on CWS based on the ICF Model

Functional communication depends on:

- *ability to effectively convey a message*
- *and not on the frequency of stuttering*

Quality of life depends on ability to :

- *manage tension and negative reactions*
- *communicate effectively in various situations*

Reaction to stuttering depends on:

- *affective aspect*
- *Behavioural aspect*
- *Cognitive aspect*

Yarus, Pelczarski, Quesal, Guitaski, McCanley, 2010

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### Three Major Components of the ICF Framework

➤ Explores human experience for normal and disordered functioning:

1. Body function and structure
2. Activities and participation
3. Personal and environmental contextual factors

Yarus et al, 2010

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### Body Structure and Function

- The brain imaging studies show anomalies in:
- **Cortical areas**
- *The white matter is responsible for skilled movement control*
- **Subcortical areas**
- *Basal ganglia and cerebellum*
- *sensorimotor functions supporting motor control and the timing of speech movements*

Chang, Zhu, Choo, & Angstadt, 2015

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### Activities and Participation

Impairments in Body Function and Structure can lead to:

- Limitations in a child's ability to perform activities
- what a person wants to do in life*
- initiating and maintaining conversations*
- socializing with peers*
- Restriction in a child's ability to participate in life and reach educational and social goals

Yanus et al, 2010

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### Contextual Factors

The context in which the children live:

- **Personal contextual factors:**
- Speaker's negative reactions (feelings, behaviors, and thoughts)*
- **Environmental:**
- The reactions of parents, teachers, and peers*

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### Assessment of Stuttering Based on the ICF Outline

- Evaluation must be comprehensive to address the multiple problems of school-age children who stutter (CWS)
- **Stuttering Severity Instrument-4 (SSI-4, Riley, 2009)**
- *frequency, duration and concomitant features*
- **The Overall Assessment of the Speaker's Experience of Stuttering (OASES, Yaruss, Quesal, Coleman, 2010)**
- *Assesses the child's thoughts on:*
  - *Impairment, reactions*
  - *functional communication abilities*
  - *activity limitations*
  - *participation restrictions*
  - *environmental and personal contextual factors*
  - *quality of life*
- **Fluency Assessment Battery (van Zaalen & Reichel, 2015)**

Yaruss & Quesal, 2004, 2010)

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### Assessment of Stuttering Based on the ICF Framework

#### Informal/ portfolio based

- Readiness
- Hands down- child lists positive and negative characteristics
- Worry ladder- child ranks worries in order
- Various questionnaires for parents and children
- Child Interview

- Previous experience with stuttering
- surface behaviors of stuttering
- strategies
- how the child and others in her environment react to stuttering
- how stuttering affects the child's life as a whole
- Data to design stuttering intervention
- Baseline data to evaluate the efficacy of treatment

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### Stuttering vs. Normal Disfluency

#### Normal Disfluency (NDF)

- **Between-word disfluency**
- *easy, effortless, rhythmic, infrequent*
- *multisyllable whole word repetitions*
- *revisions, interjections, hesitations, incomplete phrases*
- *usually only one or two reiterations*

#### Stuttering-like Disfluency (SLD)

- **Within-word disfluency**
- *More fragmented: sound and syllable repetitions*
- *single-syllable whole word repetitions,*
- *prolongations*
- *disrhythmic phonation*
- *tense pauses*
- *reiterations of repetitions usually more than two*

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### Normal Disfluencies

- “I want to.... I wish ...I had...but actually lets say uhm..uhm..the day of the..the moment I was healed healed I was not completely not fully recovered.”
- “I am am very busy wor-working eh on my paper eh essay.”
- “I am very busy working on my essay.”

Van Zaalen&Reichel, 2015

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### Assessment of Other Areas of Communication

- Oral-motor mechanism
- Articulation
- Expressive and receptive language skills
- Social use of language
- Story narrating skills

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### A Comprehensive Approach to Treatment ICF Model

- **Improve**
  - *fluency*
  - *acceptance of stuttering and of being a person who stutters*
  - *self-confidence*
  - *communication skills in the child's life*
- **Decrease**
  - *the adverse impact of stuttering*
  - *secondary behaviors*
  - *avoidance*
- **Managing bullying effectively**

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## Strategies for Reducing Impairment in Body Function

- Fluency shaping
- Stuttering modification
- Integrated approach



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## Fluency Shaping

- School-age children  
do not want to sound unnatural and different from their peers.
- Clinicians encourage children to achieve improved and not “normal” fluency
- Use a hierarchy of easier to harder tasks and situations
- Imitation reading     structured speech     spontaneous speech
- Therapy room     home     playground     classroom

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## Fluency Shaping

- Techniques focusing on:
  - Changes to the timing and tension of speech production
  - Altering the timing of pauses between words---controls rate but doesn't sound natural.
- *Continuous phonation*                             *Light articulatory contact*
- *Slow and smooth speech initiation*
- *Slow Rate*     *Easy onset*
- *Connecting across word boundaries*

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### Managing Tension

- **Continues phonation:** Ease out of a stuttering moment instead of to “eliminate” or “fix” stuttering
- **Slow and smooth speech initiation:** Rate yourself on a Scale of 1 to 10 (one = no tension; 10 = the most you have ever felt)
- **Slow Rate:** Go 5 miles per hour slower
- **Easy Starts:** Slightly slowing, softening and easing into a word
- **Easy onset:** Slightly stretching the beginning sound to ease into a production.
- **Light Contacts:** touching the articulators together lightly and softly especially on sounds that involve more contacts such as plosives and labials.

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### Stuttering Modification Learning about Speaking

- “Loss of control” makes a child regain control of her speech and she manifests “surface behaviors” of stuttering
- **Drawing the speech machine**
  - *The respiratory system – air for speaking*
  - *Voice*
- **Learning about stuttering**
  - *What we do when we stutter*
  - *Different types of stuttering*
  - *The child becomes a teacher or an expert*
  - *Stuttering can be changed*

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### Stuttering Modification STUTTER MORE FLUENTLY

- **Identify a moment of stuttering**  
*Locate the point of physical tension and struggle before, during, or after stuttering episode occurs*  
*Preparatory set, pull-out, and cancellation*
- **Reduce physical tension and struggle**  
“modify” and not say fluently
- **Recognize physical concomitant behaviors**
- **Increase awareness and self-monitoring skills**
- **Role play from a hierarchy of speaking situations**  
(linguistic demands and stress levels)

Van Riper, 1973

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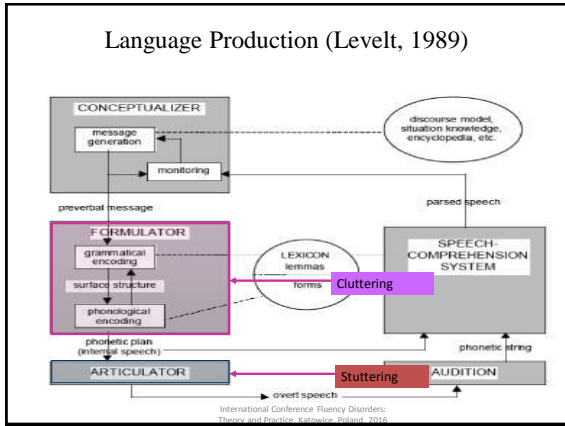
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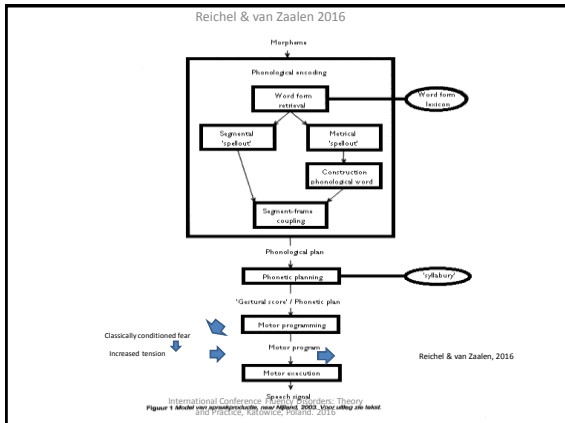
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### Reducing Negative Reactions (Personal And Environmental Context)

- Desensitization strategies help speakers to reduce their fears in structured, supportive settings
- Voluntary stuttering
- Teaching the client ways to problem-solve *to deal with self-defeating thoughts, feelings, and difficult speaking situations*
- Talking about thoughts and feelings



Murphy, Yaruss & Quesal, 2007a

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### Reducing Avoidance

- Say when and what they want to say
- Improve assertiveness
- Assume more positive attitudes
- Systemic hierarchy
- Learning about stuttering-"expert"
- "Pen Pal"
- Stuttering group
- Exploring the moment of stuttering
- "Freeze" during the moment o stuttering
- Pseudostuttering
- Drawing a picture of stuttering



Murphy, Yarus & Quesal, 2007a

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### Acceptance

- Resilience
- Regulation of emotional and cognitive reactions
- Mental health
- Quality of life
- Not an alternative to change but a stepping stone in the process of change



Murphy, Yarus & Quesal, 2007a

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### Cognitive Restructuring

- Learn to identify the thoughts underlying negative attitudes
- Examine the link between the thoughts, emotional reactions, and the speech
- Evaluate whether thoughts are valid
- Adopt positive assumptions or thoughts

Murphy et al., 2007a

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### Self-Disclosure and Support

- School-age children advertise stuttering in a classroom presentation with the help of the SLP or classroom teacher (Murphy et al., 2007b).
- Self-help group
- ISA (International Stuttering Association)
- Online chats
- Social media (e.g., blogs)

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### Accommodations At School

- CWS may qualify for accommodations
- using audio/video recording
- increasing the time provided for an oral reading or presentation
- providing an alternative assignment to oral reading
- altering the size of the audience

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### Coping and Minimizing Bullying

- Education minimizes inappropriate reactions
- React appropriately to bullies
- Educate others about effects of stuttering and bullying
- Desensitization, cognitive restructuring (reframe thinking about stuttering)

Murphy, Yaruss, & Quesal, 2007b

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### Learning About Bullying

- Bullies come from different backgrounds
- Derogatory and mean-spirited
- Some have leadership personality and can be popular in school
- Can be disruptive, impulsive, aggressive toward others
- Families can neglect or abuse them
- Some can have low self-esteem

Murphy, Yarus, & Quesal, 2007b

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### Dealing with Bullying: Role-Playing

- Role-playing teaches assertive, non-confrontational methods to combat bullying
- Practice of bullying response within safe setting builds confidence

Murphy, Yarus, & Quesal, 2007b

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### Class Discussion About Bullying

- Stuttering is nobody's fault
- Discussion about other children who were bullied which normalizes child's experience
- Discussion about coping with bullying
- The clinician participates as well
- The child shares how she would want to react to stuttering
- Allows for practicing to speak about stuttering openly
- Questions and answers

Murphy, Yarus, & Quesal, 2007b

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### More Responses to Bullying

- “Power I” – I don’t want to answer your questions
- “Shrug” response
- “I don’t care”; “so what?”
- “Because I want to”
- “Mighty Might”; “You might be right”
- Short repeated answers
- Loud voice: “I don’t like that; don’t make fun of me”

Murphy, Yarus, & Quesal, 2007b

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### Successful Outcome of Stuttering Intervention in School Age Children

As a result of treatment, CWS are able to focus on improvement of their :  
 Self-image  
 Quality of life  
 Successes in social and academic interactions  
 Ability to deal with bullying and teasing (Reichel& St. Louis, 2004)

• Before



After



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