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# Evidence Based Interventions for Beginning Stuttering

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## SPEECH FLUENCY

**Fluent Speech**

- Effortless flowing speech

**Disfluent Speech**

- Breaks in the flow of speech

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## Criteria for "**stuttering speech behavior**" as a "**disorder**" Yairi & Seery (2015)

- Transcribe at least 2 contexts conversational speech sample
- At least 500 - 600 syllables
- Calculate frequency stuttered syllables.
  - (SLDs= PWR, MWR, DysRPh, Blocks)
- Do not count # reps as individual stutters
  - Any number of repetitions, prolongations, word breaks, tense pauses, or phonatory blocks can be associated with ONE stuttered word or syllables
  - Categorize interjections/revisions if used as starters, avoiders, when connected to word production as avoidances and/or stutters. Use in description of severity and characteristics.
- Calculate average %age of both SLDs and NLDs.
- For severity, make observations of frequency, # reps, clusters, types of stutters, other secondary and non-verbal behaviors.

**3-4 % SLDs in sample and 2+ rep per unit is lowest level for stuttering.**

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## Stuttered speech is disfluent speech but…not all disfluent speech is stuttering

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- **Normal-Like Disfluency (NLDs)**
  - Hesitations & silent pauses
  - Interjections: word & non-word fillers
  - Whole word repetitions
  - Phrase repetitions
  - Revisions
- **Stuttering-Like Disfluency (SLDs)**
  - Part-word/syllable repetitions
  - Sound repetitions
  - Prolongations
  - Blocks
  - *Greater than average
    - Tension
    - Duration
    - Effort & Struggle

Least → Most

Gregory & Hill, 1993 ; Tumanova et al., 2014; Yairi & Seery, 2015; Yaruss & Reeves (2013)

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## Types of Stuttering ICD-10 CM codes

- **Childhood Onset Fluency Disorder F80.81**
  - Other term often seen is "Persistent Developmental Stuttering"
- **Fluency Disorder in conditions classified elsewhere R47.82**
  - Parkinsons
  - TBI
- **Fluency Disorder (stuttering) following cerebral vascular disease I 69**
  - Stroke
- **Adult Onset Fluency Disorder F98.5**
  - A very small %age of adult onset appears psychogenic in origin

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## From now on… Childhood Onset Stuttering

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## Childhood Onset Stuttering – One simple definition

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Guitar 2014

- Stuttering is characterized by an abnormally high **frequency and/or duration** of **stuttering like disfluencies** ( > 2% SLDs, > 2 repetitions per unit)
- PWS (people who stutter) **react** to their stutter with **effort, force**, and sometimes **extra movements**
- PWS **react** to their stutter with **emotions** such as *frustration, surprise, embarrassment and fear.*

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## Other Reported and Observed Characteristics

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Guitar (2014), Manning (2010), Yairi & Ambrose (2013), Yaruss & Reardon-Reeves (2017), Vanryckeghema, M., (2004)

- Onset most often between ages 2 – 4, when complex speech begins to emerge
  - Approx. 95% of children who stutter, do so before the age of 5 years.
  - Incidence: 5% of all children
- 70-80% of children DX with early stuttering will recover with or without TX
  - The other 25%?...Persistent, Chronic Stuttering
  - 1% Prevalence in population
- Beginning stuttering often "comes and goes", until it is there to stay
  - Often results in delayed referrals
- Persistent stuttering is a chronic disorder
  - Although much disinformation on "cures" is available to any who are looking for it

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## Other Reported and Observed Characteristics con't

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Bolyle (2015), Guitar (2014), Manning (2010), Yairi & Ambrose (2013), Yaruss & Reardon-Reeves (2017), Vanryckeghema, M., (2004

- Several "conditions" in which stutterers 'never' stutter
  - Choral reading, singing, automatic speech, "acting", etc.
  - Some theories related to a secondary motor trac for this kind of speech
- Consistently Inconsistent
  - Contextual variables are extremely important
  - Linguistic, Social, emotional, cognitive, physical
- Severity of disorder is NOT dependent upon observable stuttering
  - Covert Stuttering – exists on a continuum
  - Need to assess the "impact" of the disorder or you are not assessing the whole disorder.
    - OAESES, CAT, parent and client interviews and checklists.
- Chronic persistent stuttering affects life choices and lifestyle

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## Childhood onset, persistent chronic STUTTERING is complex

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Observable stuttering speech behaviors

Observable non-speech secondary behaviors

Cognitive components

Emotional components


Guitar (2014), Manning (2010), Yairi & Seery (2015)

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## The A B C's of Stuttering

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| A Affective | B Behavior | C Cognitive |
|---|---|---|
| • Feelings<br>• Emotions | • Speech<br>• Non-verbal | • Thoughts<br>• Attitudes |

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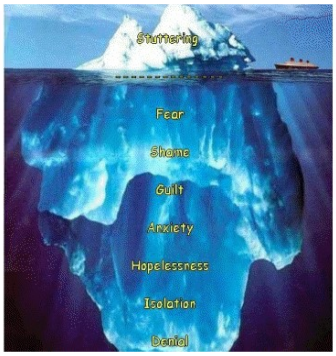
## The Stuttering Iceberg

- Stuttering is like an iceberg
  - What you see on the surface, the speech behavior, is just a small part of the problem!
- And every stutterer has a different iceberg
  - http://www.russhicks.com/iceberg

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## Some Assessment Instruments that help evaluate the "whole disorder"

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- Overall Assessment of the Speaker's Experience of Stuttering (OASES)
  - Yaruss & Quesal (2016)
- Test of Childhood Stuttering (TOCS)
  - Gillam et al. (2009)
- The School Aged Child Who Stutters: Working Effectively with Attitudes and Emotions
  - Chmela & Reardon (2016)
- Behavior Assessment Battery for School Aged Children who Stutter (BAB)
  - Brutten & Vanryckeghem (2007)
- KiddyCAT communication attitude test for preschool and kindergarten children who stutter
  - Vanryckeghem & Brutten (2007)

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## Multifactorial theory of causation

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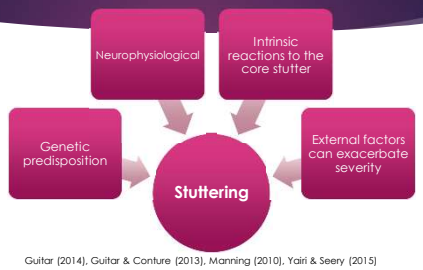


Guitar (2014), Guitar & Conture (2013), Manning (2010), Yairi & Seery (2015)

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## Genetic predisposition

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- Supported by a range of studies
  - Familial & Twin Studies
  - Most likely to occur in boys
  - Girls may likely stutter only with a higher degree of genetic loading
  - 80% chance of a family member also stuttering.

Kraft and Yairi (2011) , Drayna & Kang (2011), Manning, (2010), Guitar & Conture (2013)

- "There is extensive evidence for genetic factors found through studies of affected families and twins, although most of the "factors" have yet to be found….Of the specific genes that have been found, however, it's still not clear how they cause the disorder " (Drayna, 2015)

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## Neurophysiological differences - Adults

- Using PET and fMRI, differences found in:
  - blood flow and activations in cerebral speech centers
  - sub cortical structures.
  - hemispheric differences between stutterers and non stutterers
- Differences in various measures of motor timing and integrating complex motor tasks
- Structural and anatomical differences.
  - cortical folding and white matter connectivity

DeNil (2004), DeNil et al (2007) Guitar (2014) Ingham et al.(2004) Manning (2010)

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## Neurophysiological Differences - Child

- Reduced volumes of gray matter in left hemispheres.
- Reduced white matter connectivity in areas that support the timing of movement control.
- Atypical Lateralization of Hemispheric Functions

Chang (2014), Chang et al.(2008), Chang & Zhu (2013). Weber-Fox et al. (2013).

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## Intrinsic and External factors

- Emotional reactivity/regulation and behavioral disinhibition
  - Affect the child's ability to cope with disfluencies
- Environmental factors can exacerbate disfluency.
  - Demands outweigh individual's capacity
    - Family dynamics
    - Fast-paced lifestyle
    - Communication interaction stressors

Anderson et al. ( 2003), Jones et al.,(2014), Choi et al. (2013) Ntourou et al. (2013), Guitar & Conture (2013), Starkweather & Gottwald (1990)

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## The Stuttering Cycle

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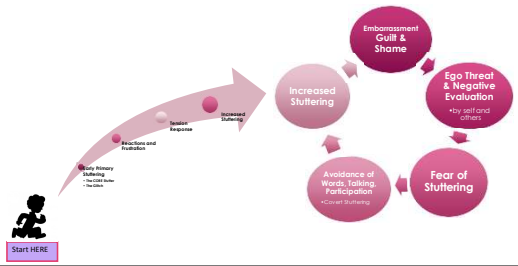
**The Progression of Early Primary Stuttering to Persistent Stuttering**

Guitar (2014), Manning (2010)

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On the previous slide…where does this happen?

Primary / Beginning/ Early Stuttering

Secondary / Intermediate-Advanced / Persistent Stuttering

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## Primary risk factors for persistence The Illinois Prediction Criteria

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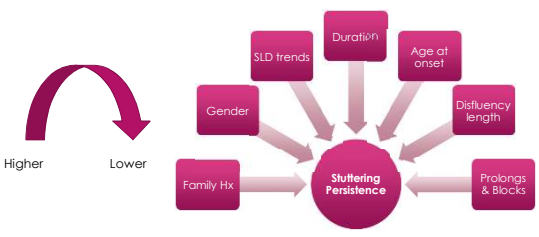


Yairi & Ambrose (1999), Yairi & Ambrose (2013), Yairi et al. (1996), Yairi & Seery (2015)

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## Secondary risk factors for persistence

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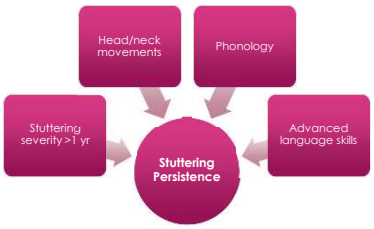


Yairi & Ambrose (1999), Yairi & Ambrose (2013), Yairi et al. (1996), Yairi & Seery (2015)

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## Tertiary risk factors for persistence

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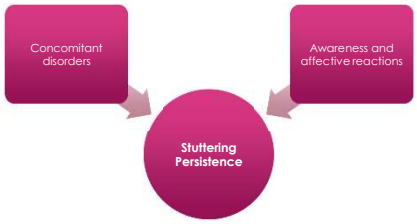


Yairi & Ambrose (1999), Yairi & Ambrose (2013), Yairi et al. (1996), Yairi & Seery (2015)

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## Yairi & Seery (2015) p. 290

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"When making a prognosis regarding risk of persistence, clinician should evaluate the combined weight of the

(a) strength of factors (rank order of primary and presence of secondary, tertiary)

(b) the numbers of risk factors present…

The predictive power of the Illinois Criteria varies greatly, and so a single characteristic is insufficient for valid estimates of chances of persistence or recovery. It is the converging of several factors that the clinician must look for"

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## The **what, when, where & how** of therapy flows from where the client is in the cycle

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- **Beginning Stutterers**
  - Mostly a "speech behavior disorder"
  - Mostly easy repetitions and prolongations
  - Child carries little negative baggage about their speech
  - Stuttering does not stop them from talking
- **Secondary , Persistent Stutterers**
  - The early "easy stuttering" core behavior has been replaced
    - more severe types of stuttering
    - Speech avoidance behaviors
  - Negative attitudes and emotions are now learned and overlaid onto speech situations


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## The Beginning Stutterer

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## Therapy Terms & Concepts & Assumptions

Guitar (2014), Manning (2010), Ratner & Guitar (2006), Starkweather & Gottwald (1990), Yairi & Seery (2015), Kelman & Nichols(2008)

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- **Direct Therapy**
  - Treat the client to enhance fluency; includes speech therapy, play therapy, motor training, counseling
  - Administered by either SLP or parent
- **Indirect Therapy**
  - Manage the environment and family interactional behaviors
  - Client is left out of direct therapeutic contact
  - Create conditions which enhance child's fluency
- **Demands and Capacities Model**
  - A common model seen not only in communication field but in most systems
  - SLPs employ this underlying theoretical construct in most any therapy session as therapy variables.
  - Re Stuttering: Capacity for fluency breaks down when the variables which affect child's fluency become too intense: i.e. in that specific situation the demand is too high for child's capacity.

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The Bucket Analogy

Yaruss & Reardon-Reeves (2017)


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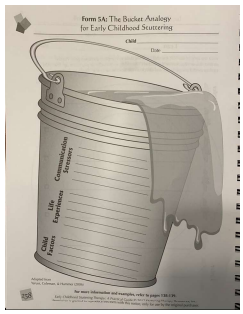
Explore these factors during assessment

Yaruss & Reardon-Reeves (2017)

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General Therapy Goals

Guitar (2014), Manning (2010), Ratner & Guitar (2006), Starkweather & Gottwald (1990), Yairi & Seery (2015), Kelman & Nichols (2008) Berquez & Kelman (2018)

- **Focus on Fluency**
  - Both Direct and Indirect Therapy
  - Reinforce fluency, both directly and indirectly
  - Provide and create contexts so child produces as much fluency as possible
  - Will be teaching fluent speech, but sometimes also changing stuttering
- **Parent and Family Involvement**
  - Parents are critical to success in all programs
    - Parents are the prime agents of change in both the physical and communicative environments of the child 24/7
    - Parents need to be desensitized to stuttering
  - Goals for Parent and Family Education and Empowerment
  - Goals for Changes in Environment

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## Common Assumptions Related to Indirect Therapies

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Manning (2010), Ratner & Guitar (2006), Starkweather & Gottwald (1990)

- Modifying aspects of the child's daily interactions will help the child achieve fluent speech in THAT speaking situation
- The more time a child spends speaking fluently, the less likely it is that the child will develop a chronic stuttering disorder
- Indirect Therapy Targets can include
  - Motor Demands
  - Linguistic Demands
  - Emotionality of Context
  - Social Demands
  - Communication interactions
  - General behavior management issues

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## Evidence Based Practice: Four Early Stuttering Therapy Programs

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- The Lidcombe Program of Early Intervention
  - Onslow, M., Packman, A., and Harrison, E. (2003)
  - Harrison, E., Onslow, M., & Rousseau, I. (2007)
  - Lidcombe Program Trainers Consortium (lidcombeprogram.org)
  - Direct Therapy
- Palin Parent-Child Interaction Therapy (PCIT)
  - Millard, Zebrowski, & Kelman (2018)
  - Kelman & Nicholas (2008)
  - Indirect, with direct added if needed

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## Evidence Based Practice: Four Early Stuttering Therapy Programs

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- RESTART
  - http://www.nedverstottertherapie.nl/wp-content/uploads/2016/07/RESTART-DCM.Method.-English.pdf
  - Indirect, with direct added if needed
- Family Focused Treatment Approach (FFTA)
  - Yaruss & Reardon-Reeves (2017)
  - Yaruss, J.S., Coleman, C., & Hammer, D. (2006)
  - Indirect Therapy, with direct added if needed.

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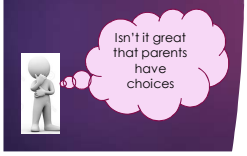
## Common Factors of Success over all 4 Programs

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- Parent acknowledgement and support from SLP
- Protected Talk Time with parent(s)
- Scaffolded Language Interaction
- Development of self-efficacy in the child

Ratner, 2018

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## Review of each program

- These programs all have worked
  - either repeat SS designs or RCTs…look to the references
- You have choices and parents have choices
- Which program feels more comfortable to you? Which one fit's your style and your theoretical leanings?
  - Common factor of successful therapies tend to be centered on client-clinician interactions and clinician competencies
    - Plexico et al. (2005), Wampold (2001)

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## The Lidcombe Program

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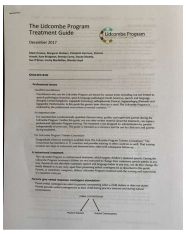
Lidcombeprogram.org
Boucand et al. (2014), Harrison et al. (2007), Jones et al. (2005), Miller & Guitar (2009), Onslow & Packman (2003), Onslow & Millard (2012),

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## Overview of the Lidcombe Program

- **An operant-based, direct therapy program**
  - Environmental, Communicative, Social, etc. factors aren't addressed in Tx Sessions
- **Not based on any etiological theory**
  - A belief that reschool children need only to focus on producing smooth speech
- **Treatment responses reinforce "spontaneous fluency"**
  - Spontaneous fluency is supported and rewarded
  - A "treatment" environment creates context that will elicit spontaneous fluency.
  - Stuttered speech noted and "asked to smooth out"
- **Most effective with CWS < 6 yrs.**
- **The SLP teaches, coaches and mentors the parent in ~ weekly "clinic" session.**
- **Parent implements TX , 10 – 15 min @ day**

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## Overview of the Lidcombe Program Con't

- **Data Intensive Program**
  - Parents are trained to keep daily and weekly data
  - SLP keeps weekly data
  - All data is charted and discussed in sessions
- **Types of Data**
  - Parent measures a severity rating (SR) each day
    - 1-10 scale; calibrates weekly with SLP
  - Parent also can measures/t each week (stutters/ time in conversation)
  - SLP and Parent measure SR on each clinic visit
  - SLP measures %SS on spontaneous speech during each clinic visit
  - *See handouts for types of charts used.*

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## Parent Reporting Charts

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**SEVERITY RATING (SR) CHART**

Log each day the agreed upon SR number:
SR 1 = no stuttering
SR 10 = the worst ever stuttering

| DATE | SR | COMMENTS |
|---|---|---|
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**SEVERITY RATING (SR) CHART**

Log each day the agreed upon SR number:
SR 1 = no stuttering
SR 10 = the worst ever stuttering

| DATE | SR during AM | Activity For TX Session | Type of Language | SR during PM |
|---|---|---|---|---|
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## Lidcombe Data Chart

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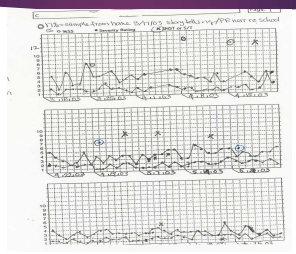

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## Lidcombe Protocol- Initial Session(s)

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- SLP & Parent(s) reviews videos/audio recordings/ observations of child's actual stuttering with a goal to identify stuttering and calibrate severity.
  - Define a "10" as the worse stuttering they have observed. Anchor that !
- Demonstrate/show about collecting data while reviewing these child's samples.
- Teach parents to identify stutters (SLDs) versus NLDs
- Calibrate SR ratings
- Begin to educate parents about stuttering, etc.
  - Notebook, handouts, weekly assignments, etc.
- *Important for parent to commit to implementing TX sessions at LEAST 5 x week, 10 min +*

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## General Protocol for @ SLP session

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- Child plays while parent/SLP review/chart past week's data and observations. Problem solve if needed
- Child engaged in play or conversation and %SS and SR (calibration !) data taken
- Parent / SLP structure the TX context to elicit the most fluency possible
  - Goal is SR 2-3 in a TX session context
  - Use regular linguistic and contextual hierarchies to reach typical conversation
- Parents/SLP use verbal responses contingent upon child's smooth talking
  - **THIS is the SOLE treatment agent !**
  - SLP coaches and demonstrates for parent as necessary
- Discuss session and make a plan for next sessions.

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## Levels of Verbal Contingent Responses

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**1. Acknowledge smooth speech / Ask for self monitoring**

- Think in terms of just teaching a new vocabulary to the child
- **Acknowledgement/Labeling responses**
  - That was smooth.
  - I didn't hear any bumpies.
  - Was that smooth?
  - What did you think

**2. Praise smooth speech /Ask for self monitoring**

- Ranging from "High five's" to a low key "great smooth talking"
- Need to judge how the child is reacting to the VCRs
- Want to make it as salient as the child will tolerate
- **Praise responses**
  - Good smooth talking!
  - Smooth talking ! (approval affect)
  - You said that smoooooooth!
  - Wow, no bumpies when you said that!
  - Listen to that smooth talking...way to go!
  - What a smooth talker you are!

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## Levels of Verbal Contingent Responses

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**3. Note the bumpies / Ask for self monitoring**

- Objective observations/ teaching vocabulary
- 5:1 ratio of praise to noting "unambiguous" stuttering
  - Called "bumpy" or "sticky" words
- **Acknowledging unambiguous stuttering**
  - There was a little bump there
  - I heard a stuck word
  - Was that bumpy?

**4. Asking for corrections…this level may not be needed**

- Don't initiate until child at SR=0-1 in spontaneous sentence linguistic level
- Judge reactions, use sparingly **only** with unambiguous stutters
- Offer much praise and "beaming" when child smoothes out bumpies.
- 5:1 ratios of praise to requests to smooth out.
- **Requesting self-correction of unambiguous stuttering**
  - That was bumpy! Do you want to try it again?
  - See if you can say "dog" without the bumps.
  - You had a stuck word, try it again.

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## Video of Lidcombe Session

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## Maintenance Phase – Stage Two

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- # Stage One sessions to get to Stage Two will vary
  - Seen to depend on initial severity
- Criterion for Stage Two:
  - %SS < 1 within clinic visits in conversation, un-structured language.
  - SR=1-2, Consistently during the day at home the previous week with at least four of them being "1".
  - Criteria are achieved for 3 consecutive clinic visits.
- Visits are faded out according to schedule
  - 2 wks., 3 wks., 4 wks., 3 mos, etc. between visits
  - Parents assume full responsibility for treatment in the long term and achieve independence from the SLP
  - Any departure from the criterion exit measure of SR = 1-2, and action is immediately taken.
    - Call to SLP
    - Return Visit

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## Other Considerations

- **It isn't "Lidcombe" without all these components**
- **Not every family will "fit" this program.**
  - Give them options and full disclosure of other indirect programs in initial visit
  - Be very clear about time commitment and data collection.
- **The implementation can be flexible & will always differ from family to family**
- **Clear criterion for dismissal.**
- **Training is available for clinicians and recommended**
- **Therapy guide open access download.**

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## Palin Parent Child Interaction Therapy(PCIT)

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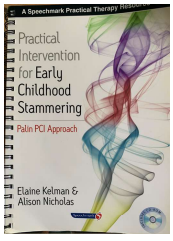
Kelman & Nichols (2008), Millard et al. (2018, 2009, 2008), Onslow & Millard, (2012)

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## Overview of Palin PCIT

- **Based on multifactorial model of stuttering**
  - Genetic, physiological, & linguistic factors predispose
  - These interact with psychological, environmental factors to add severity and persistence.
- **Therapy is very much individualized**
  - Based on both child and family system needs found through in-depth assessment
- **The goals focus on changing interaction strategies**
  - Family interaction strategies
  - Communication interaction strategies
- **Parent involvement is central to the process of change**
- **Parents select their own target, interaction strategies**
- **Six clinic TX sessions, Six home based consultation**

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## Overview of Palin PCIT con't

- **Clear principles guide the program:**
  - Parents of CWS interact with their child in many ways that support fluency
  - Parents of CWS are no different than parents of CWNS
  - Parental interaction styles can be modified, and these changes can improve fluency
  - Stuttering influences a parent's interaction style
  - A CWS is less able to be fluent in "typical" parent-child interactions
- **Post Program review at 6 weeks, 3 & 6 months, 1 year**
- **Move to direct therapy for those children who continue to stutter after completely program**
- **SLP role is one of facilitator and reinforcer and providing feedback that focuses on strengths**
  - Training available for clinicians and recommended

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## Initial PCIT Session(s) Assessment

- Stuttering assessment – forms in guide
  - Fluency
  - Assessing child's level of awareness and concern
- Record/video with parent & child play
  - SLP analyzes interaction strategies of parents
- Speech/language/social skill assessment of child
  - Looking for linguistic/social/temperament factors
- Detailed case history form
  - Purpose to identify factors that may have contributed to onset and development
  - Includes Qs on concerns, family relationships, parent attitudes and behavior management
  - Always allaying parent's "guilt" with supportive comments

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## Palin Assessment Summary Chart


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## First of Six Clinic Sessions

- Review Assessment
  - Discuss finding and child's strengths and weaknesses
- Explain the Palin PCIT Program and parent responsibilities
- Make interaction video if needed
- Set up "Special Times" by contract
  - 5 minutes, 3-5 times / week, play that encourages talking ( i.e. no cars !)
  - Each parent plans / schedules their own special time
  - Parents are to complete a "task sheet" after @ special time
    - Recording time/activity / what parents has learned this week

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## Palin PCIT Sessions 2 - 6

- Review home tasks
- Interaction video made and observed
- Parents identify a strategy target
  - SLP uses reflective observing, listening, supportive questioning to help focus on previously id fluency facilitating interactions and ask parents what's helping
- "Interaction Strategies"
  - Those that will facilitate fluency, and underlying speech, language.
- "Family Strategies"
  - Effect daily life and so may affect fluency
  - "Develop child's confidence, his ability to cope with feelings, and/or other relevant behavior management or family routines"

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Example of parent handout from PCIT Guide

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Consolidation Period

- 6 weeks of parent led, home-based therapy
  - Improvement in fluency is expected
  - "Special Times" continue with same targets and same frequency
  - Parent complete task sheets and send in each week
- Troubleshoot and problem solve if parents report stuttering is worse
- Review session at end of Consolidation Period
  - Parents rate child's level of stuttering and their level of concern
  - SLP assesses speech in speech sample
- If stuttering persists
  - More sessions with additional interaction targets may be needed
  - Or…direct therapy recommended

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PCIT Direct Therapy

"Child Strategies"

- Rate reduction
  - Tortoise talking
- Pausing to think
  - Bus talking
- Easy onset
  - Airplane talking
- Being more concise
  - Long versus short talking
- Eye contact/focus of attention

- *Reward/praise when child "caught" using them only when mastered in TX session.*

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57

## Other Considerations

58

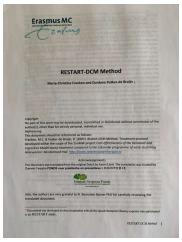
- **Very detailed help in therapy guidebook**
  - Helpful model examples and clinician dialogs
  - CD with all forms and handouts
- **Video recording capability needed**
- **Clinician training available and recommended**

58

## RESTART

59

Franken ,& Putker-de Bruijn, 2007
http://www.nedverstotterthergpie.nl/wp-content/uploads/2016/07/RESTART-DCM.Method.-English.pdf
Ratner (2018), Gottwald (2010), Starkweather et al. (1990), Starkweather & Gottwald (1990)


Erasmus MC

RESTART-DCM Method

59

## Overview of RESTART

60

- **Based on Demands and Capacities Model – DCM**
  - Aims to achieve a balance of demands on the child to communicate and the child's motor, linguistic, socio-emotional and/or cognitive capacities
- **In depth evaluation and interaction video recorded**
- **Therapy targets are individualized for each family**
  - Targets chosen by SLP based on evaluation findings.
- **4 TX sessions with parent and child, followed by parent(s) only session for assessment of progress and troubleshooting**
  - Parent Involvement in each session and in-home assignments
  - Education and assignments given by SLP
  - Cycle repeats as needed
- **Targets may include both reducing demands and reinforcing capacities**
- **Direct therapy initiated when/if all "indirect" targets have been achieved and child is still at "unacceptable level" of stuttering**

60

## Initial Sessions

61

- Evaluation Session
  - Full speech and language assessment
  - Video recording of 2 parent/child interactions for baseline
    - Analyzed and scored with checklists to find linguistic, cognitive, motor or emotional demands
    - Stuttering frequency and severity assessed
- 1st Parent Session
  - Begin education about stuttering / relieve parents concerns, etc.
  - Set up "parent child special times" expectations and how to log in book
    - Minimum 15 min, 5 days/week
  - Give parent 1st assignment towards creating a fluency enhancing environment.

61

## 4 Parent and Child Sessions

62

- Parent / child play and SLP observes
- SLP reviews log book and discusses with parent
- SLP and parent discuss changes in strategy or procedure for next week
- SLP models the new target and parent practices with SLP feedback and support
- SLP summarizes, gives assignments, engages in problem solving and support as necessary

62

## RESTART range of possible strategies

63

### Reducing Demands

- Motoric Demands
  - Speech rate, turn taking, etc.
- Linguistic Demands
  - Match language levels, reduce questions vs comments, recasting..
- Emotional Demands
  - Recognize child's temperament, help child regulate, ..
- Cognitive Demands
  - Age level questions, reduce demand speech

### Capacities Reinforcement

- Increase Speech Motor Skills
  - Training speech motor skills
- Increase Artic/phono/lang skills
  - Add these these tx targets when needed
- Reinforce Emotional Capacity
  - Strengthen emotional resilience
  - Desensitize to stuttering
  - Reinforce self confidence

63

## RESTART
## Direct Therapy "Child Strategies"

Play, Model, and Teach…

- Different ways to talk (Stutter)
- Varying speech rate
- Vary articulation pressure
- Vary loudness, intonation, prosody

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## Parent only sessions

65

- Changes in behaviors of parent and child are discussed
- Child rearing issues may be discussed
- Model solution-focused problem solving.
- Emotional demands / time demands of the parents may be discussed.
- Decide to continue for 4 more sessions or dismiss or move onto direct therapy

65

## Criteria for Tapering off and Dismissal

66

- Normally fluent speech for 3-4 months and /or the child's speech is "acceptable" to all.
- Parents are implementing a fluency enhancing environment and SLP judges that they can maintain modifications on their own.
- The parents know what to do "in case of relapse"
- Recommended tapering off: 1, 30 min session @ month for 3 months, then 1x @ 3 months for next 21 months (Starkweather et al. , 1990)

66

## Other Considerations

67

- **Therapy Guide is open access download**
  - Very detailed and directional in strategies for reducing demands and reinforcing capacities
- **Many options and choices for strategies, for both indirect and direct**
  - Flexible
- **No "defined" end point of number of session cycles**
  - Based only on progress
- **Tends to be SLP directed**

67

## Family Focused Treatment Approach FFTA

Yaruss, et al. 2006, Yaruss & Reeves-Reardon, 2017

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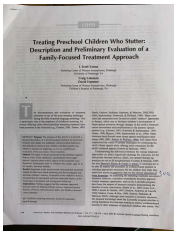


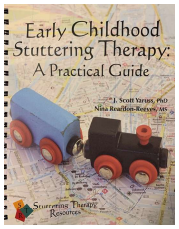


68

## Overview of FFTA

69

- **Stated overall goal to reduce stuttering and support child's language development**
- **Teaches parents to reduce interpersonal and communication stressors**
  - Parent facilitation and support of child's fluency in real world situations
- **Based on Demands and Capacities Model**
- **Targets change daily interactions**
  - Goal is to so increase fluency in any situation
- **~ 6 sessions of "indirect" TX**
  - 2-4 parent only sessions to educate and counsel
  - ~4 parent/child modeling sessions to teach modification strategies
  - Scheduling can be as flexible as needed
- **Moves to direct TX if no progress in reducing stuttering**

69

## FFTA flow charts

70


70

## Initial 2-4 parent sessions

71

- Review interpersonal and communication stressor inventory
  - Complete them if not done previously
- Begin parent education, answer questions & address concerns.
  - Factors associated with stuttering, types of disfluencies, give handouts and literature
  - Discuss and teach about communication wellness
- Home charting introduced
  - to raise parent's awareness of home factors and their reactions to stuttering
  - Review and discuss / troubleshoot in session # 2
- Discuss examples of strategies which will be introduced over the course of the program
  - Speech fluency - Reducing rate, time pressure and/or demand speech and modifying questioning
  - Communication-Reframing, reflecting and expanding language – and supportive communication development
- Discuss the structure and flow of next stage of program
  - Modeling, practice, feedback

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## 3-5 Parent/Child Modeling Sessions

72

- SLP models the targeted strategy
  - Parent gets handout about strategy
- Each parent interacts with child using target strategy
- Parent receives real time feedback (if possible) or video and review
- Repeat practice/feedback until both parent and SLP are comfortable that parent has it!
- Give parent assignment to use strategy over the week and record in observational chart.
- At final session, review all strategies
  - Parent expectations to follow through with strategies in home practice
- Monitor with phone contacts and wait 3 months for reassess
  - Child can start more direct therapy at any time is treatment not seen as sufficient

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## FFTA Parent Interaction Strategies

73

- Reducing speaking rates
- Reducing time pressure
- Reducing demand for talking
- Modifying questioning
- Reframing / reflecting / expanding child's utterance
- Providing a supportive communicative environment
  - Turn taking
  - Reduce competitive talking

73

## FFTA Direct Therapy Strategies

Yaruss & Reardon – Reaves (2017)

74

- Speech formulation / one word at a time
- How the speech machine works
- Varying speech rate, tension and voicing
  - "somewhere in the middle"
  - Pausing
  - Tight and loose

74

## Other considerations

75

- **Mostly SLP directed**
- **Flexible**
  - # sessions
  - Parent "refresher sessions" if needed
- **Parent handout and TX forms available**
  - Yaruss & Reardon-Reeves (2017)
- **Videos recommended**
  - Assessment
  - Training sessions
- **Yaruss recommends waiting no longer than 3 months to move to direct tx if no change in child's fluency**
  - Direct therapy recommendation is based on integration of fluency enhancing and changing stuttering
  - Guide book gives good examples and models

75

## Overall Summary of Indirect Tx Targets – The "**environmental communication variables**"

- **Altering tension and time pressure within conversational contexts**
  - Speech/conversation rates (teach Mr. Roger's speech) pausing, turn taking, attention giving
- **Altering family communication interaction styles**
  - Turn taking, special times together, competitive talking, rushed routines, requests for demand speech.
- **Altering language demands**
  - Language development support
    - Repeat, recast, expand, etc.
  - Reduce demand speech, comments vs questions, complexity of questions

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## Overall Summary of Indirect Tx Targets – The "**personal variables**"

- **Develop supportive parental reactions to stuttering - Desensitize**
  - De-awfulize stuttering, encourage openness, identify and acknowledgment of parent's feelings, focus on child's message
- **Support child's emotional /cognitive capacities**
  - Self esteem and self confidence strategies
    - Problem solving, accepting feelings, openness about stuttering
  - Behavior management strategies
    - Consistency, routines, charts, sleep and "fatigue issues", help parents to problem solve other "issues".
- **Help parents acquire information and support they need**
  - Educations about stuttering and child development: videos, pamphlets, website
  - Support groups: NSA, FRIENDS

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## Review of strategies for working with parents these indirect targets

78

Provide information | Work collaboratively in all things | Modeling & Practice | Observing and reporting

Charting & log books | Video feedback & session feedback | Problem solving Solution focused

78

## Some "How to's" when working with parents

79

- **FROM PCIT – but also typical of how to begin to address beginning parent involvement**
  - What are you learning (have you learned) about stuttering?
  - What have you found out about your child's stuttering?
  - What do you think he needs to do to be more fluent?
  - What are you already doing to help him be more fluent?
- **Questions to ask when watching video or discussing an "assessment or assignment video"**
  - Is interaction typical?
  - What are you doing that's helping child's fluency? How is it helping?
  - What might you do more of?
- **Questions to ask on assignment feedbacks**
  - When and what was practiced? For how long?
  - How did it go? What was the result?
  - What was YOUR experience during this practice.
  - What did you notice about your child?

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MA3

## CAVEATS FOR WORKING WITH "INDIRECT TX PLANS"

80

- Read the manuals / guides for FFTA, RESTART, or Palin PCI and do your best to implement the program as written (if you "say" you are using that program)
  - If you take pieces of a program, then you need a good theoretical understanding of how and why the individual pieces work for success.
- Acknowledge that parents know their child best and be a collaborator.
  - You are their partner / facilitator in joint problem solving
  - You are their knowledgeable professional and educator about stuttering and therapy strategies
- Hold parents accountable for observing and making changes in their environment
  - But it's a fine line/ determine what is do-able together / watch out for the guilty parent syndrome.
- Show parents…role play/practice. Don't tell…..show!
- Don't ask parents to do too much at one time….baby steps !
  - Build success / confidence with small steps and encouragement

80

## Overall Summary of Direct Therapy Targets for Young Beginning Stutterers

- **Changing Timing**
  - Rate Reduction
  - Pausing and phrasing
- **Reduction in Tension**
  - Easy speech
  - Easy onset
  - Breathy speech
- **Vocal variability and awareness**
  - Loud and Soft
- **Play with different kinds of talking and stuttering**
  - Replace hard stutters with easy stutters
- **General Communication Skills**
  - Eye contact
  - Conciseness
  - Turn taking

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**Slide 80**

**MA3** Marybeth Allen, 3/6/2019

## Strategies for working with child in direct TX

82

- Objective talk about talking and acceptance
- Concrete imagery and visuals
- Imitation to Prompting to Spontaneous
- Use linguistic hierarchy
- Structured games to scaffolded conversations
- Channel Mr. Rogers

Also see Wallace & Walton (1998)

82

## CAVEATS FOR WORKING with DIRECT THERAPY

83

- Approach all direct therapy targets and strategies with the attitude of acceptance of stuttering being OK….watch your language!
  - "Sometimes talking is just hard…and that's okay, you are learning lots of new stuff as grow up and it's not all easy". "Do you remember when you couldn't_____, but now you can?"
  - Will THIS be the child whose stutter does not resolve even WITH therapy?
- Remember the overall goal… a self confident, happy talker
  - What child says / the ideas / the communicative engagement is the most important thing
- Teach that fluency targets are just ways to modify speech that the child can choose to use when he wants.
  - Do not expect child to "talk that way" all the time.
  - Fluency tools are just that….tools to use when needed.
  - Therefore they always need to be accompanied with strategies to learn self awareness and self-monitoring.
    - "My words are getting stuck just now, I think I'll slow down/use easy speech/use my pausing

83

## CAVEATS FOR WORKING with DIRECT THERAPY

84

- Read the manuals, especially with Lidcombe, and do you best to implement as written.
- Involve parents in sessions – collaborate in targets selection, solution focused problem solving, model the strategies, take turns and expect them to follow through over the week at home in special " fun speech time" with their child.

  AND…….Give assignments only when you've modeled/ demonstrated with parent and all agree they can carry on at home.
- Use log-books, journals, practice charts or whatever it takes to help parent keep tract and report back to you.
- Monitor your own reactions to child's stuttering and acceptance of stuttering.

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