ISTAR’s Comprehensive Stuttering Program for School-Age Children: making progress with a focus on severe and complex cases

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Haynes, ISTAR, 2017

Outline

- ISTAR’s programs/history
- Impact of stuttering
- Causes
- Persistence and recovery
- Assessment
- Comprehensive Stuttering Program for school age children (CSP-SC)

- Treating co-existing and complex disorders
- Case discussions and problem solving

Haynes, ISTAR, 2017
Our Mission

- Treatment
- Clinical Training
- Research
- Public Education

"The rain cloud comes out when I stutter. And I feel glum inside."

The sun is shining on my face...and I am happy because my stuttering is kinda gone!"

-An 8 year old before and after therapy

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More About ISTAR

We:
• treat people of all ages from around the world including complex cases
• offer extended and intensive individual and group therapy formats using a variety of programs (Lidcombe Program, Comprehensive Stuttering Program, Campbeltown, Palin Parent Child Interaction) and SpeechEasy™ assessment (age 12 and up)
• provide client-focused treatment that is evidence based
• teach and train students and clinicians
• consult to practicing S-LPs on cases
• conduct and publish research and do presentations

ISTAR History

• Founded in 1986 by Dr. Einer Boberg and Deborah Kully as a non-profit centre with the support of the Alberta Elks
• Funding available to clients through ISTAR Client Assistance Program (ICAP), Elks and Royal Purple Fund for Children, the Fondation Bergeron-Gagnon, and other programs; extended health plans
• ISTAR is an institute of the Department of Communication Sciences and Disorders, Faculty of Rehabilitation Medicine, University of Alberta
• ISTAR satellite office in Calgary opened in 2006, and is located in University of Alberta Calgary Centre in downtown Calgary

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Treatment Programming for Co-existing Disorders at ISTAR

- We offer programming for children with Down Syndrome, autism, anxiety, co-existing speech and language problems

- 50% of ISTAR cases have co-existing disorders

Research Activities at ISTAR

Dr. Marilyn Langevin recently retired but will complete research projects as adjunct clinical professor at ISTAR/U of A

Dr. Torrey Loucks is the new research chair in stuttering

Dr. Anwar Haq is our Executive Director
Impact of Stuttering

• Early intervention to prevent a lifetime of stuttering and reduced quality of life

• PWS have reported: withdrawing in class, avoiding speaking with instructors, choosing jobs for which they are overqualified, expecting limited vocational success.

• Craig et al (2009). Documents impact of stuttering on quality of life in adults who stutter: vitality, social, emotional, and mental functioning negatively impacted

Impact of Stuttering – TAB

• School aged children:
  • Langevin, Bornick, Hammer and Wiebe, 1998
    • 49 – 58% of elementary students bullied at school at some time
    • For children who stutter:
      81% were bullied at school at some time
      56% were bullied once a week or more
      Parents not always aware of bullying
      Imitation of stuttering and name calling most frequent types
Frequency of Bullying Experienced by Children with Exceptionalities (Langevin, 2014)

- As victims:
  - Children who
    - Stutter = 43% to 83%
    - Have Specific Language Impairment = 40% (Redmond, 2011)
    - Have ADD = 20% (Redmond)
    - Have Autism = 28% (victims) 36% (bully-victims)

Cause

- Complex interaction of neurophysiological, environmental and learning factors
- Influenced by genetics
- Brain studies implicate the basal ganglia circuits (Alm, 2004); impaired myelination in left hemisphere fiber tracts (Cykowski et al, 2010), structural abnormalities in speech-language areas (Watkins et al, 2007).
Neuroimaging studies

- Chang (2014) looked at neuroimaging studies in children who stutter – found differences in cerebral function/anatomy involving auditory and motor areas.
- Chang et al (2008) looked at whether the same left hemisphere white matter differences and reversed left-right asymmetries present in adults who stutter were present in children with persistent and recovered stuttering.

Both groups of cws had reduced gray matter volume in speech areas.
Persistent group of cws: also had reduced integrity of white matter in left hemisphere.
Right hemisphere differences seen in adults not found in children, and believed to be compensatory.

Stuttering Definition: Guitar

1. Core Behaviours
   - Silent or inaudible prolongations (blocks), repetitions, audible prolongations

2. Secondary Behaviours
   - Escape behaviours: attempt to terminate stuttering
   - Avoidance behaviours

3. Feelings and Attitudes
Wingate’s Standard Definition

1. Core features (the actual stuttering)

2. Concomitant features (i.e. gaze aversion, concomitant pitch and loudness increase, pressurized articulatory contacts)

3. Accessory features (verbal; movements)

4. Other qualities (voice, articulation, language, motor speech)

Surface and Subsurface Features
Iceberg Analogy (Joseph Sheehan)

Covert Behaviors
- Fear
- Shame
- Guilt
- Embarrassment
- Anger

Overt Behaviors
- Repetitions
- Prolongations
- Blocks
- Broken Words

Secondary Behaviors
- Visible signs of tension
- Body movements

Covert Behaviors
- Anxiety
- Low self esteem
- Avoidance
- Predictions of failure
- Rapid heart rate

Onset
- Usually 2 to 5 years but can be up to age 12
- Beginning of multi-word utterances
- Gradual or abrupt – 30% abrupt
Spontaneous Recovery without Treatment

- Children who present to speech clinics/S-LPs may be less likely to recover on own.

- Can’t predict recovery for an individual child

- School aged population less likely to recover spontaneously

- Estimates as high as 75% for children close to onset

- 50% for children presenting to ISTAR

Normal Dysfluency and Stuttering

- **Speech Dysfluency**
  - Stuttering Behaviors
    - part-word repetitions
    - audible prolongations
    - silent prolongations
    - multiple interjections
  
  - Normal Dysfluency
    - phrase repetitions
    - hesitations
    - revisions
    - word repetitions

Haynes, ISTAR, 2017
Distinguishing Cluttering and Stuttering Dysfluencies

**Typical stuttering disfluencies:**
- Sound or syllable repetitions
- Audible prolongations
- Silent prolongations or ‘blocks’

**Typical cluttering disfluencies:**
- Interjections
- Revisions
- Unfinished words
- Phrase repetitions

Factors Impacting Fluency

- Time pressure
- Emotion (e.g. excitement, frustration, etc.)
- Language level
- Negative listener reaction
- Fatigue/illness
- Performance pressure
Stuttering Assessment

1. Information gathering – case history form, parent interview, any prior reports – S-LP, Ed Psychologist, IPP etc.
   
   Interview/case history
   
   • NB: Family history of chronic and recovered stuttering, who and when they recovered, with or without treatment
   
   • History of development of stuttering
   
   • Age of onset
   
   • Child and parent/peer/others reactions

Stuttering Assessment – Case History

• Previous therapy and response to it
• Parent description of stuttering – at onset/now
• Teacher description/impact in classroom
• What makes it better/worse?
• What does parent/teacher do that helps?
• Teasing and bullying?
• Emotional reaction/avoidance
Stuttering Assessment – Child Inventories

2. To glean information about feelings/attitudes
   Formal inventories:
   • Communication Attitude Inventory, Brutten (1985)
   • Self rating of effects of stuttering – Children (SRES-C), Langevin, M., & Kully, D. (1997)
   • Teasing and Bullying Questionnaire for Children who Stutter – Revised (TBQ-CS Revised), Langevin, M. (2013)
   • Can use informal inventories from Chmela and Reardon, The School-Age Child who Stutters: working effectively with attitudes and emotions (Stuttering Foundation: stutteringhelp.org)

Stuttering Assessment – Use of Severity Ratings

• Can use in assessment for ratings of samples, to monitor (if stuttering seems to be spontaneously remitting), or track therapy progress. Look for agreement between you and person tracking (within 1 point)
• I use the Lidcombe 10 point scale: 0=no stuttering at all, 1=very mild stuttering, 9=extremely severe stuttering
Stuttering Assessment - Samples

2. Speech sample collection – school sample, clinic samples in a variety of speaking tasks including: conversation/talking activity with clinician; oral reading; story telling or explanation; time pressure tasks; home sample and clinic sample with parent

- If no stuttering in clinic, must have sample to make diagnosis – do not rule out stuttering based on single fluent sample as stuttering can fluctuate/cycle
- Have parents (teacher; someone who knows child) rate representativeness of each sample, if possible
- If in smooth (totally fluent) cycle: parent monitor severity ratings and initiate assessment in stuttering cycle

Calculating speech rate and %ss

- Practice to improve intra-judge and inter-judge agreement
- General principles (D. Kully):
  Count each syllable only once, as stuttered or fluent
  Count only meaningful syllables (not interjections unless stuttered on)
  Don’t count brief automatic utterances (i.e. “I see,” “OK”) unless stuttered on
  Start timer when person attempts to speak and keep on for all speech attempts
  Turn off timer for formulative pauses greater than one second
% ss continued

- Count each moment of stuttering only once no matter how many types of stutters or struggle behaviours associated with it

**Speech rate calculation**

# syllables x 60 = spm (syllables per minute)

secs of talk time

**%ss calculation**

stutters x 100 = %ss (stuttered syllables)

total syllables

**Practice**

- Smarty Ears Disfluency Index Counter
  - [https://itunes.apple.com/ca/app/disfluency-index-counter/id366359722?mt=8](https://itunes.apple.com/ca/app/disfluency-index-counter/id366359722?mt=8) for iOS devices
  - $13.99

Spm, number of fluent/dysfluent syllables, type of stutter (block, repetition, prolongation)

- Fluency rater

- %ss and spm

- DAF/FAF Assistant

- DAF pro

also has FAF
Stuttering Assessment – Other Data

3. Probes
Probe child’s response to:
environmental strategies, spontaneous fluency,
fluency skills

4. Observe/assess if necessary:
Language, Phonology/Articulation, Voice, Hearing
Many children will have co-existing problems such as
speech sound disorders, language issues which impact stuttering

5. At ISTAR we rate overt/covert, i.e. mild overt/moderate covert; severe
overt/mild covert, and give recommended program and hours to mx at end
of ax (sometimes, i.e. if in fluent cycle, may want to collect more samples,
then give recs).

Palin PCI Assessment Summary Scale

• From Practical Intervention for Early Childhood
Stammering: Palin PCI Approach, Speechmark, 2008,
Kelman, E., Nicholas, A. Shared with permission.

Looks at stuttering and social communication skills;
physiological, linguistic, psychological; environmental
factors; strategies (interaction, family, child)
Video Samples

• Core behaviours

• Secondary behaviours
  https://www.youtube.com/watch?v=rw04lXypQgQ

• Feelings and attitudes
  https://www.youtube.com/watch?v=n0-Hz7xxPPs

Identification: core and secondary stuttering

• Pre treatment
Cluttering Assessment

- (Daly, 2006) Predictive Cluttering Inventory available at International Cluttering Association website:http://associations.missouristate.edu/ica/
- Cluttering example (adult)
Assessment Problem Solving

• You have busy caseload in a high needs school
• Referral for a female ELL child, in kindergarten 6 months, family in Canada 1 year
• Parents limited English, older brother in grade 6 reported to interpret for family
• Girl starting to speak more at school and teacher noticed stuttering (described as pwrs, wwrsl)
• You observed child in classroom, no stuttering noticed but child uses a lot of gestures instead of speaking

• In 1 on 1 interaction with child: uses short stereotyped phrases, labels and some 2-3 word responses. You noticed two part word repetitions, 3-5 iterations, some labial tension (i.e. b-b-b-ball)
• Parents unable to come to school regularly (mom at English class all day; dad works two jobs)
• How would you proceed?
Assessment/Referral Problem Solving

- Boy age 8, grade 3
- Speech therapy for stuttering for two years in preschool, kindergarten and grade 1. Previous therapy: 6 months of Lidcombe as a preschooler but program not completed as S-LP went on maternity leave and new S-LP wasn’t trained in program.
  - Kindergarten: in artic group (for /s/, with added focus on stretch), no parent involvement. Grade 2: fluency skills 1x/2 weeks for 3 months, mom attended some sessions. Some gains in treatment room, but no generalization.
- Teacher/parents concerned as stuttering is getting worse. You met boy briefly, he stuttered severely. Doesn’t want to be pulled out for ax/tx, seemed reluctant to speak to you.
- Parents report some TAB on playground/school bus.
- How do you proceed?

Some Options:
1. No treatment – monitor, treatment rest
2. Treatment – type and frequency (extended, intensive)
   a. Lidcombe Program – if trained/parent available
   a. Fluency skill or shaping approach (speak more fluently) i.e. Camperdown – older elementary (11+, teen/adult)
   a. Stuttering modification approach (stutter more easily and openly; avoidance reduction)
   b. Combined approach (i.e. Comprehensive Stuttering Program – School Aged Children)
   c. Environmental Approach (i.e. Palin PCI)
3. Refer to specialized S-LP/program

Treatment

- Some Options:
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  3. Refer to specialized S-LP/program
Treatment

  Did a systematic review of published stuttering treatment research
  Articles from 1970 -2005 reviewed. Most powerful treatments:
    1. Response contingent principles – young children
    2. Prolonged speech, self management, response contingencies – adults (speech and social/emotional/cognitive)

Parent Involvement

• Important aspect of therapy
  If they can’t be involved, who can facilitate carry over/generalization?
  Parents or other person observe and participate
  • Learn to model skills
  • Do severity ratings
  • Learn to judge skill accuracy and reinforce with focus on the positive
  • Complete home practice with child
Comprehensive Stuttering Program – School Age Children (CSP-SC)

Designed for 7-12 year old, can be adapted for younger children

• Speech related goals
• Attitudinal-emotional goals
• Self management goals
• Environmental goals

References:

• Kully and Boberg, Therapy for School-Age Children, 1991
• Langevin, Kully and Ross-Harold (2007). In Stuttering and Related Disorders of Fluency, 3rd edition, Conture and Curlee (eds), Thieme Medical Publishers

Examples of goals

• Speech related goals: use fluency skills in all speaking environments approximating normal prosody/rate; manage residual stuttering; improved communication skills.
• Attitudinal-emotional goals: developing/maintaining positive attitude to communication, comfort/openness about stuttering/skills; ability to manage fear/anxiety, handle regression, deal with any TAB and negative reactions.
• Self management goals: problem solving, self monitoring, self evaluation, self reinforcement, manage environment
• Environmental goals: facilitate parents understanding of cause/development, process of change; how to manage environment to support fluency, participate in and deliver therapy, deal with regression, TAB.

Speech related goals— General Principles

• Fluency skills may be most helpful for children with more severe stuttering or who want tools to use
• Need to track progress with beyond clinic severity ratings
• Some young school aged children may respond well to prolongation/stretch alone (with other skills in clinician model)
• Reinforcers may be useful – for increasing productions/transfer
• Naturalness important even at slower rates
• Importance of hierarchies for stability:
  • Cueing hierarchy
  • Language hierarchy
  • Transfer hierarchy
  • Incorporating fluency disrupters/distance

CSP-SC: Prolongation

• Stretch (prolongation) is basis for practicing skills
• Stretch stressed vowels
• Slow or long, medium and slight stretch
• Use other skills in stretch model

**Long stretch**: What did/the carrot/say to/the wheat?
Let us rest/I’m feeling/beet.

**Medium stretch**: What did the paper/say to the pen?
I feel quite all right/my friend.

**Slight stretch**: What did the teapot say to the chalk?
Nothing you silly, teapots can’t talk.
Use of prolongation and skills

- Videos to be added

CSP-SC

- Levels of blockage – identification (may not need for all children)
- Tension modification if needed
- Easy breathing – can be a difficult one to teach and can become a struggle behavior if not taught well. Ask yourself: does the child need it to be fluent?
- Gentle starts
  - reference to pre-voice exhalation dependent on need/ age
  - Can combine easy breathing and gentle starts as easy starts
- Easy starts
  Combine easy breathing and gentle start. Volume wheel.
CSP – SC

- Light touches
- Combine smooth blending and light touches: keep it moving
- Fix (self correction)
- Rebreath
- pullout
- 3Ts
  - Take time to think; Thumbs up when ready to talk; Talk using skills/stretch
- Changes
- Calm and Cool

Fluency skills: establishment

Importance of strong model and accurate productions (i.e. gentle starts NOT breathy)

Naturalness even at long stretch

Working up and down the language hierarchy
CSP-SC

Lots of productions

Stable at level before moving on

Cueing hierarchy: strong to minimal

Sequencing: Aim always for high skill accuracy and stable fluency
Incorporate self evaluation

CSP – SC

Prolongation/Stretch

Easy Start
Start your voice easy. Glide your voice on.

Was it EASY or HARD?

Self Evaluation
Slam Dunk Rim Ball Air Ball

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CSP – SC

• 3Ts, gentle start and slight stretch – good communication skills, scripted presentation
**Fluency Skills Practice**

- Work in partners (7 skills) – Pick your skill

- Say the "What Did" poem at long stretch (2-4 syllables/breath group)
- Practice your skill at long stretch while you:
  - Name 5 items on the table or in your purse/bag
  - Carrier phrase 1 breath group (a small____)
  - Carrier phrase 2-3 breath groups (I have/a small____)

- Say the "What Did poem at medium stretch (4-6 syllables/breath group)
- Practice your skill at medium stretch while you:
  - Say 5 multisyllabic words
  - Say 5 "I like (food)" sentences.

- Say the "What Did" poem at slight rate: (6-9 syllables/breath group)
  - Read a short paragraph
  - Do a 20-30 second monologue on a topic of your choice

**Language hierarchies**

- Video
- Work in groups of 3-4, hierarchy from word to conversation
Transfer

Goal: to promote generalization of skills/stretch with different people (i.e. friend in therapy room; office secretary), in different situations (i.e. phone), in different places (i.e. library, classroom)

Some general ideas to facilitate:

• Do a transfer yourself and have child give you feedback (older child)
• Script and role play first for stability, in office and different location if possible
• Establish stretch or skill zones in clinic/home/school
• Reinforce spontaneous stretch/fix outside therapy room (counters, self praise for fluency skill use for older children)
• Reinforcement/reward systems for skill/stretch use
• Modeling rather than reminding – nb for parents

Transfer Hierarchies

• Important to sequence transfers for success using transfer hierarchies - stairway
• Identify easy, medium and hard talking situations

Example: 8 year old boy slide 39, moderate overt/mild covert (some word substitutions, may avoid talking to new people)

Easy: talk to friends and kids in my class, talk to mom, talk to little brother, talk to hockey coach and kids on my team, talk in class when I raise my hand, talk to my teacher

Medium: talk to dad, talk to older or new kids, talk to grandpa on phone, talk in class when teacher picks me, read aloud in class, talk to other teachers/secretaries

Hard: give a presentation at 4H, talk to adult strangers, talk to principal
Planning a Successful Transfer

Incorporate into a transfer session:

1. warm up of skills/practice prior to transfer (script at first; 1 question). Can break down
2. child/S-LP identification of key skills (including good communication skills) and rate
3. self talk statement that makes child feel brave/confident (if this is an issue)
4. recording
5. Self evaluation from recording and clinician feedback. What did child do well? Area to focus on next time?

Transfer continued

• Other factors to consider when planning transfers: number of people present; environment (quiet, noisy etc); transfer partner’s speech rate/communication style etc. Will child acknowledge stuttering and skills? How? How and when will you cue?
Transfer Group Activity: Plan a Transfer at School for Boy

• Use case described 8 year old boy. Plan three transfers:
  • Easy one
  • Medium one
  • Hard one

Plan a 30-40 minute session incorporating items 1-5 from slide 59.
Ideas to address attitudinal-emotional goals

- From Chmela and Reardon, *The School-Age Child who Stutters: Working Effectively with Attitudes and Emotions*. Stuttering Foundation publication 0005.

- Worry ladder: (least to most). For age 9 and up. Least to most: ladder may have many or a few rungs

Worry Ladder
Hands Down

• Hands down: For age 8 and up. Trace hand. On left hand write things you like about yourself on each finger. On right hand, list things you may not like about yourself.

Attitudinal-emotional goals

• My Views on School

Fill in the blank inventory from Chmela and Reardon book

• Examples from two children, same age(8)
Attitudinal-emotional goals

• Self talk/being brave
  Identification of helpful/unhelpful self talk
  Can be hard to identify for some children
  “What makes you feel brave to talk?”

• Acceptance
  Review SF Famous People who Stutter poster (stutteringhelp.org)
  It’s OK to stutter; You are not alone
  Peer/teen mentors who stutter; group therapy

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Attitudinal-emotional goals

Advertising
Educating peers, teachers, parents
Dealing with Teasing and bullying
Avoidance busters
Stuttering fingerprint: what I feel/think/do*
Fear hierarches: low/middle/high. Client picks goal. If high fear, goal could be “just show up,” if low fear, goal could be “try fluency strategy.”*

*From: V. Sisskin, Change Thoughts and Feelings about Communication, The Stuttering Foundation DVD No. 6335
Self management goals

• Problem solving: dealing with TAB, teaching skills to others (teacher, friend, peers)
• Self monitoring: self praise, self evaluation, recording/listening, Smooth/fix/forget.
Reward systems for use of skills/fixes
Plan own practice activities (show video)
Education of peers – presentation at school. Stuttering Foundation materials (stutteringhelp.org). Video: By Kids, For Kids; All Grown Up

Environmental goals

• Parent education: they didn’t cause it!
• Process of change: not overnight; positive reinforcement, modeling and consistent practice are key!
• Give materials so they can educate others – teachers, family members etc.
• Identification of family and interaction strategies that facilitate fluency, i.e. getting enough sleep, turn taking (with siblings)
Factors Impacting Treatment Progress

- Severity of stuttering
- Frequency of sessions in clinic and at home
- Parent or other commitment, involvement and abilities
- Parent/child interaction
- Busy schedule
- Child’s ability to change speech
- Child/parent motivation
- Teasing and bullying/acceptance

When to Move to Maintenance

- Child has participated in a number of successful transfers
- Child has ability to use skills and self-corrections well and is accurately self evaluating
- Child is managing attitudinal-emotional aspects well; avoidances low
- Severity ratings are low
- Parents/teacher feel they have ability to continue practice needed with minimal support from S-LP
- Parent modeling accurately and providing accurate, mostly positive feedback and structuring/adjusting language level as needed
- I often use Lidcombe stage 2 schedule for maintenance
Complex cases: stuttering and ADHD

Consider:
Using positive reward systems, change them frequently
Integrating social communication/good listening goals into therapy
Be aware increased stuttering may be side effect of psychostimulant meds
Giving frequent and immediate feedback on performance
Scheduling shorter and more frequent sessions, more frequent breaks
Using topics of interest
Focusing on self monitoring

(Healey and Reid, 2003)

Complex cases: stuttering and ASD

Use social stories/visual schedules to decrease anxiety
De-emphasize corrective feedback (may increase anxiety for some children)
May need to focus on identification/awareness first
Find out what is important to child (for reinforcer/reward system which you will likely need)
If in language therapy, de-emphasize requests for increased length and complexity of utterance until stuttering stable. Model instead.
Complex cases: stuttering and ASD

Consider focus on:
Identification/self management for high functioning/older children (i.e. Camperdown program)
CSP with focus on what helps fluency most/rules for smooth speech
Lidcombe with no contingencies for stuttered speech (use structuring instead) and reward system.
Use materials that are meaningful and geared to clients areas of interest; program in time to talk about area of interest
Therapy may need to be continued over a longer period of time and reintroduced in periods of transition

ASD TYPES OF DISFLUENCY

Children with ASD can have developmental stuttering, cluttering, or atypical disfluencies such as final part word repetitions (i.e. town-own-own or town-n-n), mid word insertions (i.e. bo-hu-ok); final sound prolongation (i.e. racesssss), final phrase repetition (i.e. we’re on the slide, on the slide, on the slide) or combination thereof.
“Neurotypicals” can also have atypical disfluency
Often lack of awareness, reactivity, or avoidance with fluency issues in ASD (Sisskin and Wasilus, 2014).
Anxiety Disorders and Stuttering

- 22-60% of adults who stutter diagnosed with social anxiety disorder (Iverach et al, 2016)

- Children who stutter age 7-12 had 6 fold increased odds for social anxiety disorder and 7 times increased odds for subclinical generalized anxiety disorder (Iverach et al, 2016).

- Social anxiety disorder: characterized by fear in social or performance based situations where evaluation by others possible

Complex cases: stuttering and anxiety disorders

- Refer/use psychologist with experience in stuttering for suggestions for managing anxiety
- CBTPsysc is an online program for adults with stuttering and social anxiety
- Focus on self regulation/expectations of self/others
- Consider self praise; focus on positive accomplishments
- Clients may prefer more fluency skill focused therapy (focus on control) than response contingent programs like L.P
- Consider more global programs like Camperdown (older child) or global CSP-SC (“calm and easy” speech) to decrease performance anxiety
Stuttering and Down Syndrome

- CSP-SC with or without modifications
- May focus on most helpful skills
- Harasym and Langevin study (2012):
  Case study of 8 year old girl with D.S. and profound stuttering.
  Language therapy suspended during fluency treatment.
  CSP-SC and contingencies for smooth talking: 43 hours of therapy (including one week intensive)
  95.5% improvement

Client problem solving

- Age 9, grade 4

- Assessment: severe overt stuttering/moderate covert

- Avoids spelling aloud, speaking in groups in class; holds back in talking; “I can’t talk b/c I’m a stutterer”; very frustrated.
Problem Solving – Goals

• Response to probes: spontaneously fluent at short repetitive phrase level; very good response to prolongation, smooth blending, good response to easy breathing, gentle start and 3Ts. Liked subtle praise for smooth talking but not too much of it.
• Mom asks lots of questions; older sibling impatient/comments negatively on it
• Active class, time pressure
• Make a goal for: speech; feelings and attitudes; education (family/school)

Establishment/Transfer for Client
Maintenance and Follow-up

Combined Complex Case

• Moderate overt/mild covert stuttering
• ADHD, anxiety disorder – NOS, sensory processing disorder
• Moderate expressive language disorder
• Age 5
Combined Case - Treatment

Treating Concomitant Speech and Language Problems

- Up to 1/3 of children who stutter have other problems (speech sound disorder, language, oral motor)

- Little data to guide us

- Recent study by Unicomb et al (2017) documents concurrent treatment for speech sound disorders and stuttering – Lidcombe Program and direct treatment for SSDs for 5 preschoolers.

- What to treat first?
Concomitant Problems

Possible Treatment Programming Models:

1. Serially or sequentially:
   - Treat stuttering first, when stable begin integrating language, phonology (maintenance therapy) or
   - Treat other disorder first

2. Cyclic approach
   - Treat one disorder for period of time, then other disorder for same amount of time
   - Continue cyclically

3. Concurrent
   - Treat stuttering/other problem at same time
   - Variations include: treatment goals delivered simultaneously in same activities or discretely within same session (Unicome et al, 2017)
   - Considerations:
     • Can practice fluency with mastered structures
     • Can model fluency skills when teaching new language/phonologic structures
Stuttering and concomitant speech and language disorders

For concomitant speech sound problems, consider:

The severity of each disorder and impact on intelligibility
The fact that we have a shorter window to treat stuttering and possible negative impact on quality of life if child stutters into adulthood
Consider delaying treating a mild-mod speech sound disorder until stuttering is stable

For expressive language, consider:

Modelling but not requiring production of structures/concepts
Incorporating language goals into higher level practice

Treating the other problem:

• Watch modeling and requiring sound production with tension (i.e., s ————>oup, spot) when working on speech sounds with a child who stutters or has stuttered
• If you do language/phonology therapy, monitor fluency closely and stop if it increases or use more indirect (modeling) approach
• Decrease focus on production and increased length of utterance until fluency is stable (i.e. child is in maintenance)
• If start with fluency therapy and child has language delay – may reach plateau and need to switch to language therapy for a time
Other Approaches – PCI

• Parent-Child Interaction (PCI: Michael Palin Centre)
  • [www.stammeringcentre.org](http://www.stammeringcentre.org)

• Special time, parent and child (5 minutes)

• Make and view videos
  • What is parent doing that is helping?
  • What could parent do more of?

Other Approaches – PCI

Strategies individualized for child.

Examples of interaction strategies:
• Letting child take lead in play
• Balancing comments and questions
• Use of pausing
• Eye contact
• Praise and encouragement

In assessment, look at evidence of for both parents and if potential target
Other Approaches – Palin PCI

Examples of family strategies:

- Special times
- Openness about stuttering
- Dealing with feelings
- Turn taking
- Pace of life

Other Approaches – Palin PCI

Examples of child strategies:

- Rate reduction
- Pausing to think
- Eye contact/focus of attention
Cluttering – Treatment

Train awareness first – Daly

Possible goals: (St. Louis)

1. “Speak slowly”
2. “Speech naturally”
3. “Speak clearly”
4. “Think about what you are saying”

Cluttering – Treatment

• 5. Concentrate on how you are talking – self-monitor speech
• 6. Remember your listener
• 7. Reduce excessive disfluencies
Scheduling Options

• Lidcombe
  • Once weekly typically
  • 60 minutes initially

• CSP-SC
  • 1 to 2+ times weekly, 45 to 60 minutes
  • Intensive or semi-intensive program initially

NB: Fluency skill approach - Ideally 2x/week or intensive/semi-intensive program for establishment because of motor learning, to maximize progress

Children’s intensive clinic at ISTAR

• Run in summer in Calgary and Edmonton, age 7-11
• 2 weeks, 2 hours/day of individual treatment to get child up to level of/ready for transfer (i.e. stable at slight at conv level)
• 4 day group camp (5-6 hours/day) focusing on parent training/parent as therapist, transfer, social and communication skills (Superflex), TAB and avoidance buster discussions if needed, maintenance plan developed with parent including warm up, planned practice, ongoing practice, transfers
• Transfers in clinic include: pizza and ice cream transfers; Science Centre; mock school in class with teacher; phone transfer (if needed); stranger surveys (if needed); sports day; multiple opportunities for presentations; former clients as guest speakers.
PROBLEM SOLVING

• YOUR CASES

Materials

• Have parents bring favorite toys, games, and activities
  • Show them how to adapt to different language levels

• Word/carrier phrase ideas:
  • Memory, Fish, Chipper Chat, Candyland, magnet games (i.e., Bear dress-up), Pop-up pirate/squirrel, Go Fish Ned’s Head; Sneaky Snacky Squirrel; Freddie’s Food Truck.

• Sentences/Picture description:
  • Books: 1, 2, 3 sents etc.
Materials

- **Sentences/Picture Description cont:**
  - Super Duper (is verbing “Fish”); sequencing stories; Search and Find and What’s Wrong books.
- **Q and A:**
  - Chipper Chat /wh/ questions; Super Duper /wh/ questions; Professor Noggin series; Brain quest series; Super Duper mini mysteries.
- **Storytelling, conversation or higher level language:**
  - Sequence stories; wordless books; barrier games; draw a story; “What’s wrong” pictures; white board story tell/retell from day; story cubes.

Involving Others in Therapy

**Speech-Language Assistants**

**Possible involvement:**
- Monitor severity ratings of child (train and calibrate) in classroom/other situations
- Act as parent in Lidcombe (for that child only, trained by S-LP as per Lidcombe protocol)
- Observation of child in classroom/other situation
- Transfer partner for child
- Modeling of skills (trained by S-LP)
Involving Others in Therapy

Teachers

Possible involvement:

• decreasing time pressure, level of language, how child can best participate in class, modeling of skills, cueing (train how/when to do and involve child in this)
• Identify triggers for child
• Observation of behaviors in classroom/severity ratings
• Dealing with teasing/bullying
• With S-LP, facilitating child doing a presentation to educate classmates

Example of adaptation for a school schedule

• 1 day/week for 10 weeks
• 5-7.5 hours (30-45 mins/session)
• At ax: choose 1-2 skills that will have most impact on child’s speech.
• 10 hours:
  • Week 1: 1 skill+long stretch
  • Week 2: 1 skill+long stretch (or skill from week 1. Consider they may just need stretch to be smooth)
  • Weeks 3 and 4: same skills+ medium stretch. Introduce attitude work as needed
Possible school schedule

- Weeks 5 and 6 – skill plus slight. Invite assistant/teacher/parent to observe
- Weeks 7 and 8 – transfer hierarchy, pre transfers (getting ready; role playing i.e. on phone with clinician)
- Weeks 9 and 10 – transfers continued

For 20 weeks (10-20 hours of therapy): spend 2 extra weeks at each stage

Considerations for Lack of Progress

- Consider referral (especially if severe) to specialized program
- Consider change of program (i.e., if LP – adding fluency skill component)
- Possibility of increasing frequency/duration of sessions until child is at transfer phase
- Consider therapy rest if motivation/home follow up are issues
- Feel free to contact me to discuss cases
  elizabeth.haynes@ualberta.ca
  (403) 201-7285
Case Discussion and Helpful Websites

- [www.stutteringhelp.org](http://www.stutteringhelp.org) (Stuttering Foundation)
- [www.stutteringhomepage.com](http://www.stutteringhomepage.com) (has just for kids section)
- [www.theifa.org](http://www.theifa.org) (Int’l fluency association)
- [www.stutter.ca](http://www.stutter.ca) (Canadian Stuttering Association)
- [www.westutter.org](http://www.westutter.org) (National Stuttering Association)

After 30 years of working with clients who stutter and their families, I have learned to:

- have positive expectations
- be persistent
- match treatment approach to client/family
- listen more than talk
- be a partner
- get out of the therapy room
- be creative
- be brave
- be hopeful
What I have learned:

• advocate and educate
• sit with uncomfortable feelings (fear, shame, anger)
• laugh and have fun
• abandon my plan
• empathize
• celebrate clients’ courage and accomplishments!

Thank You!