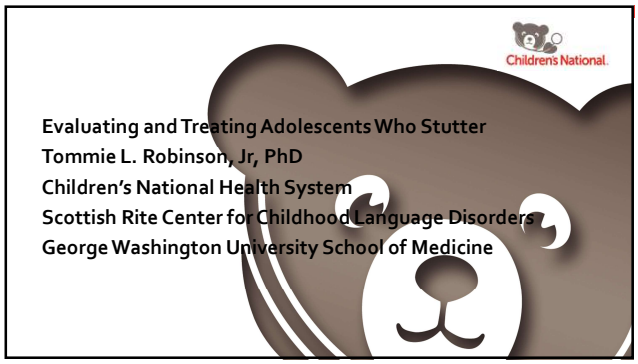

Evaluating and Treating Adolescents Who Stutter
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Disclosure

- Dr. Robinson has financial disclosure. He is receiving an honorarium for this presentation.
- Dr. Robinson has no non-financial disclosure for this presentation.

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Leaning Objectives

- Participants will be able to:
  - Understand the theoretical constructs relative to treating adolescents who stutter
  - Design service delivery models for addressing speech fluency issues in adolescents
  - Provide speech fluency services to adolescents with confidence

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Introduction

- Feeling comfortable
- Experience
- Knowledge of general speech and language difficulties
- Understanding normal nonfluencies
- Understanding normal disfluencies
- Broad theoretical knowledge base
- Fun
- Exciting
- Hands on
- Frequency

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Stuttering Defined

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The Basics About Stuttering: *Defined*

- A disorder of speech-communication
- There is no universal definition
- Researchers have debated this issue for years
- Key words such as rate, rhythm, duration, flow of speech

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The Basics About Stuttering: *Onset*

TWO-YEARS-OLD

FOUR- YEARS-OLD

- Stuttering begins for most children who stutter between 2 and 4 years of age
- Most SLPS notice closer to 2 ½ -3
- Most parents notice closer to 4

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The Basics About Stuttering: *General Facts*

- Prevalence
  - % of individuals who stutter at a randomly selected moment in time
    - ≈ 1% of school-age population
- Lifetime Incidence
  - % of the population who have stuttered at any time in their lives
    - ≈ 5% of population
- Familial Incidence
  - For 50% or more of people who stutter, at least one other family member also stutters *(this does NOT cause stuttering)*
- Sex Ratio
  - 3 boys: 1 girl (on average)
- Spontaneous Recovery
  - At least 50 - 70% exhibit improvement without treatment within the first 12-24 months of onset

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Acquired versus Developmental Stuttering

- Developmental
  - Accounts for vast majority of stuttering cases
  - Onset typically before 7 years of age, but can be as late as 12
  - In 70% of cases, onset is gradual, with NO known psychic and/or physical trauma associated with 90% or more of cases
- Acquired
  - Accounts for small percentage of stuttering cases
  - Onset typically later in life
  - Usually follows some psychological or physical (usually the latter) trauma
  - Sudden onset, typically

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Stuttering Components

- Disfluencies
- Secondary Mannerisms
- Poor attitude/self concept

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Types of Speech Disfluency

- **Between-Word Speech Disfluencies**
  - ***(Typical/Non-stuttered/Other/Supramorphemic)***
    - Phrase repetitions (PR)
    - Revisions (REV)
    - Interjections (INJ)
- **Within-Word Speech Disfluencies**
  - ***(Atypical/Stuttered/Stuttered-like/Inframporphemic)***
    - Monosyllabic whole-word repetitions (WWR)
    - Sound/syllable repetitions (SSR)
    - Audible sound prolongations (ASP)
    - Inaudible sound prolongations ('blocks') (ISP)

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Types of Speech Disfluency

- **Nonstuttering-like Disfluencies (nonSLD)**
  - Phrase repetitions (PR)
  - Revisions (REV)
  - Interjections (INJ)

Total Disfluencies (TD)

- **Stuttering-like Disfluencies (SLD)**
  - Whole word Repetitions (WWR)
  - Sound/syllable repetitions (SSR)
  - Interjections (INJ)

***# TD* = #nonSLD + #SLD**

- ***Typically,***
  - CWS produce ≥ 10 TD per 100 words (10%)
  - CWNS produce ≤ 10 TD per 100 words (≈ 8%)

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Stuttered-like disfluencies (SLD)

- ***Typically,***
  - CWS produce ≥ 3 SLDs per 100 words (3%)
  - CWNS produce ≤ 2 SLDs per 100 words (2%)
- Yairi (1997), Ambrose & Yairi (1999), and Pellowski & Conture (2002) report that children who stutter (CWS) exhibit, on average, between *66 to 81% SLD per total disfluencies* while children who do not stutter (CWNS) exhibit, on average, only between *24 to 42% SLD per total disfluencies*

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Overarching Principles

- Multicultural Considerations
- Theoretically Based
- Carryover/ Maintenance
- Data Keeping
- Counseling

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Multiculturalism

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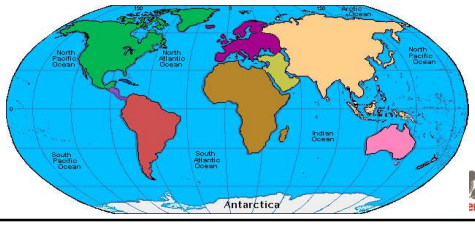

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Cultural Considerations

- Cultural Competence
- Cultural Humility
- Use of Language
- Events in the Life Cycle
- Rules for Interaction
- Topic Exchange
- Narrative Discourse
- Acceptance

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Theoretical Construct

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Summary of Theories

Psychological
- Repressed Need
- Influence of Parents
- Personality Disorders and Stuttering

Learning
- Anticipatory Struggle
- Diagnosogenic
- Continuity Hypothesis
- Operant Conditioning
- Two-Factor

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Theories Continue

Physiological
- Cerebral Dominance
- Genetics
- Cognitive Linguistic
- Covert Repair
- Cybernetic and Feedback Model

Multifactorial
- Demand and Capacities Model
- Dynamic Multifactorial Model
- Neurophysiological Model

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Theories of Stuttering

- You messed me up!
- I think; therefore, I am.
- The system ain't working.
- Now what could it be?

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Factors that Influence Stuttering

- Relatives who stutter
- Variability of the behavior
- Education
- Parents' expectations
- Second language acquisition
- Language
- Maturation of the brain
- Events in their lives
- Temperament

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The Evaluation Process

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The Evaluation Process

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Other Communication Disorders

- Voice
- Articulation
- Aphasia
- Oral Motor Dysfunction
- Hearing
- Linguistic Organization
- Word Finding
- Vocabulary Issues

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Other Fluency Disorders

- Cluttering
- Spasmodic Dysphonia
- Linguistic Disfluency
- Neurogenic Acquired Stuttering
- Normal Disfluency

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Culture

- Typical Behavior
- Attitude

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Other Disorders or Issues

- Autism
- Psychological
- Traumatic Brain Injury
- Cognitive Impairments
- Aphasia
- Stroke
- Medications
- Malingering
- Alcohol
- Drugs
- Second Language Acquisition

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Diagnostic Protocol

- Stuttering Severity Instrument (SSI3)
- Speech Samples
  - Conversation
  - Narrative Discourse
  - Interactions
- Language
- Voice
- Articulation
- Oral Motor
- Cognition

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Other Areas

- Neurogenic
- Psychological

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Trial Therapy

- Which Strategies work
- What happens when you do this?
- Quick therapy session

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Data Analyses

- Syllables/minute
- Number of disfluencies/100 words
- Percent of disfluencies
- Number of fluent words
- Types of disfluent words
- Rate of speech

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CALMS

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CALMS

- **C**ognitive-(thinking)
- **A**ffective- (feeling)
- **L**inguistic-(forming the message)
- **M**otor- (producing speech)
- **S**ocial-(normal communication)

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The CALMS Model of Stuttering

Cognitive
- Thoughts
- Perceptions
- Awareness
- Understanding

Affective
- Feelings
- Emotions
- Attitudes

Linguistic
- Language skills
- Language formulation demands
- Discourse

Motor
- Sensori-motor control of speech movements

Social
- Effects of type of listener and
- speaking situation

http://www.unl.edu/fluency/stuttpdf

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Cognitive: Child's knowledge, understanding and awareness of stuttering

Thoughts of identity as a person who stutters and how others view them

Therapy Ideas:
Talk about talking
Increase Knowledge of stuttering
Understand Mechanisms of Speech
Increase Self-Monitoring
Change Negative Thinking
Develop Question of the Week
Journal

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Affective: Feelings and emotions regarding stuttering

- Response to teasing, other people's reactions, and avoidance of stuttering
- Self-image

Therapy Ideas:

1. Playing with Stuttering
2. Teach others how to stutter
3. Use objects to represent stuttering

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Linguistic: Level of fluency and how it affects overall language ability, articulation and phonological ability

Therapy Ideas:

1. Select topic or theme
2. Systemically increase linguistic complexity
3. Use linguistic context to support speech modification skills
4. Integrate linguistic level with other CALMS components

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Motor: SSI-3 integrated into this section

- Secondary behaviors, frequency and duration of disfluencies
  -types and characteristics of disfluencies
  - frequency of stuttering with different partners

Therapy Ideas:

1. Increase use of speech modification strategies
   The 3 D's (Discuss, Demonstrate, Drill)
2. Create speech "tool box"
3. Contextualize, Conceptualize, Generalize
4. Have child rate performance

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Social: avoidance of situations and degree of stuttering in certain situations

- Impact on peer relationships

Therapy Ideas:

1. Don't hide stuttering
2. Homework assignments (short, negotiate)
3. Role play in speaking situations
4. Take therapy on the road in different situations

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Rules for Intervention

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Things to Consider in Treatment

- Breath Control
- Anatomy and Physiology
- Relaxation

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Philosophical Strategies

Fluency Shaping
- Modeling
- Slow and Easy
- Fast and Hard
- Behavioral
- Highly Structured
- Quantitative

Stuttering Modification
- Inserting Purposeful Disfluent Moments
- Self Reflecting
- Modifying Stuttering
- Attention to Attitudes, Fears and Avoidance
- Qualitative

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Designing the Treatment Plan

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Before designing treatment, you should know…

- Stuttering severity
- Age of the Patient/Student/Client
- Any secondary Behaviors?
- Parental availability?
- Exacerbating factors?
- Recommendations from Dx

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Stuttering Severity

- Frequency of stuttering
  - Serves as a baseline for tx
- Duration of stuttering
  - Longer durations = higher severity
- Most common disfluency type
  - WWR vs. ISPs
- SSI-4 score
  - Based on frequency, duration and secondary behaviors

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Age of Child

- Age of child determines whether tx is direct or indirect
- **Young children** (≈ 3- to 6- years)
  - Typically indirect because of low/no concern or awareness
- **School-age children** (≈ 7- to 12- years)
  - Typically direct because of some concern and awareness
- **Adolescents**
  - May not want to be in tx anyway!

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Secondary Behaviors

- Are disfluencies associated with physical behaviors
  - i.e., eye blinking, foot tapping, poor eye contact
- Are their any pyschosocial behaviors present
  - Selective mutism, severe anxiety with speaking, Attention Deficit issues

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Parental Availability

- How much access do you have to the parent?
  - Consistent weekly face-to-face access?
  - Parental access by phone?
  - Access to grandparents/aunts or uncles?
  - No access at all?

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Exacerbating Factors

- We do not know what *causes* stuttering; only know what *exacerbates* stuttering
- Dissociations in speech and/or language
- Emotional factors
  - Highly reactive to change?
  - Inhibited?

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Recommendations from Dx

- Be aware of what information has already been given to the parent
- How receptive were parents
- Treating SLP can then follow-up with parent on recommendations

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Individual Therapy

- Value
- Attention
- Focus
- Scenarios

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Group Therapy

- Realistic
- Appropriate grouping
- Dynamics
- Behaviors
- Activities

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Carryover/Maintenance

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- Transfer
- Maintenance

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Strategies for Transfer and Maintenance

- Patient/Client/Student becomes the clinician from the beginning
- Decrease the frequency of scheduled treatment
- Maintain regular maintenance checks
- Institute regular, benchmarking
- Deliberately revisit the past
- Reexamine personal construct
- Integrate treatment changes within the communication system

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Data Keeping

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Treatment Note Example (Preschool Child)

- **Scale:** (Disfluent) 1- 10 (Fluent) or % of fluency

  Probe:
  Conversation _ Narratives _

  Therapy Results:
  Conversation _ Narratives _

  _ N/A _ Model _ No Model Single Words _

  _ N/A _ Model _ No Model Carrier Phrases _

  Self-Correction: _ Yes _ No **Self-Monitoring:** _ Yes _ No

  Tasks/Techniques: _

  Activities: _

  Carryover Activities/Assignments: _

  Value Added Impact: _

  Plans for Next Session: _

  Additional Comments: _

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Treatment Note Example (Older Child)

- **Scale:** (Disfluent) 1- 10 (Fluent) or % of fluency

  Probe:
  Conversation _ Narratives _ Reading _

  Therapy Results:
  Conversation _ Narratives _ Reading _

  _ N/A _ Model _ No Model Single Words _

  _ N/A _ Model _ No Model Carrier Phrases _

  Self-Correction: _ Yes _ No **Self-Monitoring:** _ Yes _ No

  Tasks/Techniques: _

  Activities: _

  Carryover Activities/Assignments: _

  Value Added Impact: _

  Plans for Next Session: _

  Additional Comments: _

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Counseling

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Counseling

- Counseling is professional guidance of an individual by utilizing psychological methods
- Counseling is an art
- Counseling is a science

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Counseling process

- Deal with behaviors
- Address emotions connected to stuttering
- Facilitate child's self-esteem
- Assure child that it is okay to stutter
- Involve family, teachers, peers
- Change pre-conceived notions

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How do we use counseling?

- Gather and convey information
- Prevention
- Help patients/clients adjust emotionally
- Help to correct the CD
- Provide with setting for change
- Help with developing strategies

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Key words

- Interpersonal skills
- Trust
- Self-understanding
- Listening
- Indirect and direct leading
- Reflecting
- Summarizing

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Key words continue

- Confronting
- Interpreting
- Informing
- Clarifying

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Counseling techniques (Luterman 1996)

- Content response
- Counter question
- Affect response
- Reframing
- Sharing self
- Affirmation

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Counseling Techniques (Luterman, 1996)

Counter Question

- Responding to a question with a question
- Forces the individual to reveal his/her opinion

Example: Ask the individual how he or she came to that opinion

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Counseling Techniques (Luterman, 1996)

Content Response

- Used often
- Offer content-based relationships

Example: Telling an individual what services are available and offering a directory of resources

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Counseling Techniques (Luterman, 1996)

Affect Response

- Responding to the "faint knocking"
- Empathetic listening
- Putting yourself in the shoes of the individual
- Requires follow-up

Example: "That must frighten you when you think about the available services for your child."

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Counseling Techniques (Luterman, 1996)

Reframing

- Use to force the person to think about the positive side
- Has to be timed correctly
- Pollyanna
- Powerful too

Example: "What a wonderful opportunity this presents for you to get involved in establishing suitable programs."

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Counseling Techniques (Luterman, 1996)

Sharing Self

- Sharing our own doubts and uncertainties with our clients/patients/ students so that we don't seem so in control
- Sharing feelings

Example: "My child has a hearing loss too and that is how we ended up in this area."

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Counseling Techniques (Luterman, 1996)

Affirmation

- Responding as a sounding board
- Using nonverbal behavior

Example: " Uh huh."

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Other Luterman Techniques

Silence

- The Embarrassed Silence
- Changing-Topic Silence
- The Reflective Silence
- The Termination Silence

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Other Techniques

Listening

- Active listening
- Paraphrasing
- Empathy

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Prevention: Parent Counseling

- Parent education
- Parental attitude changes
- Parental behavior changes
- General parenting
- Group parent counseling

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Parental Behavior Changes

- Rate of speech
- Language use
- Negative reactions
- Conversational rules
- Daily "special speaking time"
- Modifying home environment
- Monitor speech at home

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School Age

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School Age Children

- Need for therapy
  - Emotional element
  - Social dynamics
  - New communicative partners

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Challenges of School-Based Stuttering Clinical Practice (Yaruss, 2002)

- Large caseload sizes.
- Short, infrequent sessions.
- Groups of children with varying disorders.
- Limitations in budgets & materials.
- Minimal interaction with parents.

Piece together a tx plan that works for you based on your clinical setting and your client

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Methods for Intervening

- Slow and easy talking
- Easy onset phonation
- Continuous phonation

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Treatment activities

- Pertinent to day-to-day
- Address social needs
- Age appropriate
- Fun/interactive
- Variety of communicative contexts
- Build on a hierarchy

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Peer involvement

- Therapy partners
- Progress monitors
- Realism
- Carryover

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Observation in the Classroom

- Be non-obtrusive
- Pick a good time to observe
- Observe in a variety of settings
- Coordinate with teacher
- Adjust treatment goals to reflect observations

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Adolescents

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Treating Adolescents

- Building rapport
- Relationships

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Pre-intervention factors

- Motivation
- Conflicts
- Parental involvement

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Motivation

- Motivation to attend
- Motivation during
- Motivation outside therapy

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Conflicts

- Extracurricular
- Family
- Personal/life

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Parental Involvement

- Too much involvement
- Too little involvement
- The right formula

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Treatment methods

- ERAS-M
- Continuous phonation
- Stuttering modification

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Activities

- Role play
- Classroom activities
- Incorporate lessons
- Outside activities

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Activities

- Reading
- Story telling
- Games
- Journaling
- Role play

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Therapy goals

- Self-correcting
- Self-monitoring

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Dismissal from Treatment

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Dismissal from Therapy

- Are the parents ready?
- Is the child ready?
- Are the speech disfluencies more "normal"?
- Progress monitoring schedule
- Follow-up schedule

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Last Tasks in the Learning Sequence

- The clinician teaches parents how to ask children to self-correct the child stutters during these structured activities.
- Clinician and parent must work closely together to ensure the child is enjoying themselves and has no negative feelings toward treatment.
- If the clinician has to "feel around" to find the correct way to present verbal-contingent stimulation to the child, the parent feels more relaxed about attempting the procedure.

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Object of Structure Conversations

- Maintain response rate at an optimal level for the child to learn.
- A rule of thumb -> child's stuttering rate should stay low when parents are giving response-contingent verbal stimulation in structured conversations.
- An important task to teach parents is to set the task at the correct level of difficulty for the child so that optimal learning occurs.

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Questions and Answers!!!

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