

- **Case presentation:**
  - 14-year-old male adolescent (Sam) presents with an 11-year history of stuttering.
    - increased speech disfluencies (repetitions, prolongations, blocks)
    - avoidance of words/speaking situations
    - difficulty initiating conversations
    - limited participation in social and academic settings
    - increased physical tension/secondary behaviors (eye blinking, head nodding, hand tapping) during stuttering episodes
  
- **Body Function and Structures:**
  - Describing the anatomy, physiology, and/or psychology of the body, as it applies to stuttering (ICF Framework):
    - Frequency/severity of speech disfluencies
    - Physical tension
    - Secondary behaviors observed during speech production
    - Effort/efficiency of speech
    - Learned avoidance behaviors
  - **Assessment:**
    - Assessment of surface-level behaviors (disfluency rate, physical tension, and secondary behaviors)
      - Conversational speech samples in multiple contexts
      - Samples during reading tasks (may help discern avoidance behaviors)
      - Samples during picture description
      - Samples with multiple communication partners
    - Important to keep in mind that the disfluency rate observed in the diagnostic session may or may not be representative of the child's "everyday speech"—as disfluency rate is highly variable/fluctuates depending on the situation.
    - Formal testing measures use normative data to compare child's speech fluency characteristics to peers. Helpful in qualifying a child for services, as third-party payers often request this information:
      - *Stuttering Severity Instrument-Fourth Edition*
      - *Test of Childhood Stuttering*
    - Sam's stuttering has significant impact on the body function and structures domain that should be targeted under treatment.
      - Increasing disfluencies
      - Physical tension
      - Secondary behaviors
      - Word avoidance

- Treatment:
  - Reducing amount of stuttering by altering speech prior to the initiation of stuttering moments
  - Speech modification strategies:
    - Rate control
    - Continuous phonation
    - Prolonged speech
    - Easy onsets
    - Light articulatory contacts
  - Stuttering modification strategies:
    - Cancellations
    - Pullouts
    - Preparatory sets
    - Targeting avoidance
  - Integration of speech AND stuttering modification is important for James, as he exhibits increasing disfluencies and physical tension/secondary behaviors.
  - Reports of a lack of correlation between the amount of stuttering and anxiety related to it—thus anxiety may not fluctuate as disfluency does.
  - Since Sam presents with increasing disfluencies and word avoidance—we cannot define improvement as being based only on a reduction of stuttering.
  - The idea that more fluent speech=better communication may negatively impact the child and leave them less able to cope/accept moments of fluency breakdowns after completing therapy. Check in on resilience.
  - Much of a person's reactions to an event may depend on their previous experience with a condition—taking surface-level characteristics does not wipe out memories.
  - Comprehensive treatment includes speech and stuttering modification and can influence multiple areas of communication.
    - Integrated approaches by learning more strategies to have at their disposal when they feel that they can utilize them.
    - Important to have multiple ways of managing the condition; multiple tools help individuals deal with the various components of a disorder.
- Activity and Participation:
  - ICF framework describes this as a client's social and interpersonal communication, interpersonal interactions, level of knowledge, self-care, and mobility
    - Stuttering can have a significant impact on all of these things
    - Knowledge of stuttering and ability to educate peers is something all CWS could benefit from

- Assessment:
  - Various assessment tools geared toward assessment of the impact of stuttering on overall communication
    - *Overall Assessment of the Speaker's Experience of Stuttering-Teen* (Yaruss & Quesal, 2006)
    - *Cognitive, Affective, Linguistic, Motor, and Social Assessment for School-Age Children Who Stutter* (Healey, 2012)
    - *Behavior Assessment Battery for School-Age Children Who Stutter* (Brutten & Vanryckeghem, 2007)
  - These tools aim to:
    - Determine effective/efficient communication in various speaking situations
    - Assess impact on ability to achieve educational objectives/interact with others
    - Assess impact on quality of life
    - Determine comfort, spontaneity, and naturalness in functional communication across a range of situations
    - Determine child's knowledge of stuttering/ability to educate their peers/advocate for appropriate accommodations
- Treatment:
  - Sam avoids words and speaking situations/has trouble initiating conversations.
  - Limited participation in academic/social settings
  - Important to generalize activities: make sure child is learning how to use what he or she is being taught in a real-world situation.
    - Targeted by bringing others into the session; taking client outside Tx room.
    - Generalization allows child to have success that is not solely dependent on fluent speech.
    - Counseling activities target increased participation/spark conversations about negative communication experiences
      - Activities to reframe a child's thoughts and actions related to communication and helping the child improve acceptance level
      - Resilience
      - Cognitive-behavioral therapy
      - Acceptance
        - Stuttering cannot be successfully managed if the child does not accept that it exists; acceptance can allow the child to
        - Openly discuss stuttering with others
        - Learn more about it

- Seek support (from other people who stutter, family, community members, etc.)
      - Have less fear in speaking situations
    - Acceptance is not just an endpoint—but stages that occur throughout a person’s life
    - To utilize EBP and treat whole child/disorder—must also target negative reactions
      - Surface-level behavior
      - Reactions
      - Overall communication
  - Important that children learn how to communicate while stuttering
    - Speech modification strategies
      - Pausing and phrasing
      - Easy onsets
      - Light contacts
      - Prolonged speech
    - Stuttering modification strategies
      - Pullouts
      - Cancellations
      - Preparatory sets
  - Important for children to learn how to navigate their stuttering in a school setting
    - IEP
    - Opportunity to practice therapy targets in the classroom
    - Collaboration with classroom teacher to monitor participation and reactions of peers
  - SLP’s advocating for appropriate accommodations in the classroom
    - Limiting timed activities
    - Reducing time pressure in oral reading
    - Reading fluency not assessed through timed tests or activities
- **Environmental and Personal Factors:**
- Environmental factors: family and community response, cultural beliefs
  - Personal factors: race, gender, age, educational level, coping style, temperament, etc.
    - Assessment:
      - Assess cognitive/emotional responses to stuttering and overall communication
      - Assess self-confidence/participation in various communication settings
      - Assess attitudes about stuttering and self as communicator

- Gather info from parents, teachers, and collaborating SLPs
- Assess competence in responding to questions about stuttering/management of teasing/bullying
- Assessing self-therapy, self-management, & problem-solving skills
- Environmental and personal factors can impact the disorder, rather than the disorder impacting the domain
- Impact of adolescence should be taken into consideration
- Treatment:
  - Desensitization activities
  - Pseudostuttering
  - Actively talking about stuttering aids in removal of the social stigma associated with it
  - Self-disclosure
  - Formal/informal support groups
  - Clinicians should be prepared to address bullying/appropriate reactions
  - Cognitive restructuring
  - Goal is not to convince child he/she should like the stuttering, simply accept it as a small part of who he/she is and not allow it to interfere with the ability to communicate effectively
- **Overall treatment goals:**
  - Increase knowledge of stuttering
  - Reduce amount of associated physical tension/secondary behaviors
  - Decrease amount of disfluencies
  - Improve associated reactions/thoughts/emotions
  - Improve overall communication skills
- **Example Goals:**
  - Long-Term Goals:
  - The client will use stuttering modification techniques including preparatory set, slides, and cancellations to modify 100% of stuttering events and secondary characteristics in all functional communication situations and environments to attain maximum fluency.
  - The patient will demonstrate the accurate use of all three fluency enhancing techniques (slowed rate, easy onset, continuous phonation) while participating in increasingly linguistically difficult tasks from naming, to using carrier phrases, to simple phrases in turn-taking, reading, defining, multiple meaning words, telling stories, to spontaneous conversation with 100% accuracy.
  - Short-Term Goals:
  - Given modeling and verbal instruction, the client will demonstrate the accurate use of cancellations during 100% of pseudo blocks while participating in increasingly linguistically difficult tasks from reading, to defining multiple meaning words, to telling stories.

- Given modeling and verbal instruction, the client will demonstrate the accurate use of slides during 100% of pseudo blocks while participating in increasingly linguistically difficult tasks from reading, to defining multiple meaning words, to telling stories.
- Given modeling and verbal instruction, the client will demonstrate the accurate use of preparatory set during 100% of fake blocks while participating in increasingly linguistically difficult tasks from reading, to defining multiple meaning words, to telling stories.
- Given modeling and verbal instruction, the client will demonstrate the accurate use of all three modification techniques during spontaneous, real dysfluencies on 100% of stuttering events while participating in increasingly linguistically difficult tasks from reading, to defining multiple meaning words, to telling stories.
- **Discharge:**
  - Should be addressed very early in the treatment process, as this may help the child and family understand the course of treatment and the outcomes that are being targeted
  - Treatment monitoring periodically allows for continued reassessment of
    - Overall communication
    - Knowledge of stuttering
    - Reactions to stuttering
  - Discharge criteria should be discussed with child and family throughout the entire treatment process
- **Summary:**
  - Comprehensive stuttering assessment and treatment identifies areas of need and treatment in line with ICF framework guidelines
  - Amount of stuttering has an impact on communication abilities, though it is not the only thing that needs to be taken into consideration
  - Comprehensive approach should be tailored to each individual client