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Stuttering 101: What Every SLP Should Know



Craig E. Coleman, M.A., CCC-SLP, BCS-F
Assistant Professor, Marshall University

Learning Objectives



After this course, participants will be able to:

- ❧ Describe the various types of stuttering and the differences between stuttering and disfluency.
- ❧ Describe the current theoretical framework of stuttering.
- ❧ Discuss current incidence and prevalence information related to stuttering.

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Disclosures



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- Receive Royalties from Pearson Publishing (OASES)
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What is Stuttering?



Stuttering is...



- ❧ A disruption in the forward flow of speech that can take many forms, and may be accompanied by physical tension, secondary behaviors, negative thoughts and emotions, or decreased communication skills.

Disfluency is...



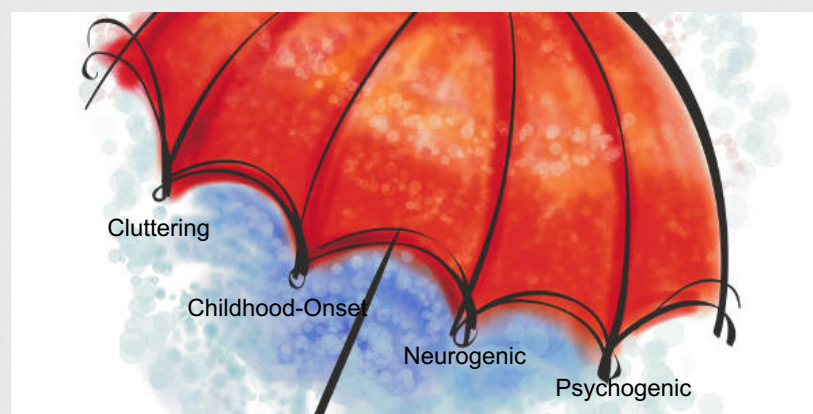
- ❧ Merely a disruption in the forward flow of speech
 - ❧ All people have disfluencies, but not all people stutter

Fluency is...



- Smooth forward flowing speech with appropriate pitch, rate, effort, etc.

Types of Fluency Disorders



Cluttering



- ✧ Reduced speech intelligibility due to increased speaking rate, running together of words, and poor organization of thought
- ✧ May occur with or without stuttering

Cluttering Etiology



- ✧ Appears to be related to learning disability (specifically central language disorder)
- ✧ Many people who clutter also exhibit learning disorders
- ✧ Involves aspects of learning, verbal and written expression, and perception

Cluttering-Symptoms



- ❧ Rapid rate of speech; abnormal phrasing patterns
- ❧ Frequent maze behaviors (the information content is reduced)
- ❧ No increased physical tension
- ❧ Frequent repetition of 1-syllable words and first sound/syllable of multi-syllabic words

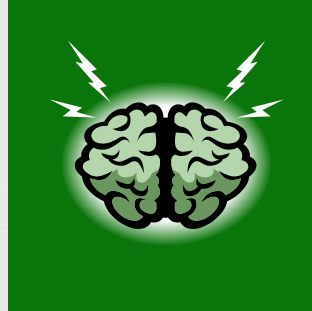
Cluttering--Treatment



- ❧ Reducing rate of speech
 - ❧ May need to use pacing techniques
 - ❧ Increase pausing/phrasing
 - ❧ Over-articulation
 - ❧ Increased speaker awareness

Neurogenic Stuttering

- ❧ A fluency disorder that results from damage to the nervous system



Neurogenic Stuttering- Etiology

- ❧ May occur following stroke, brain trauma, surgery, drug use
- ❧ May involve one or both hemispheres

Neurogenic Stuttering-Symptoms

- ❧ High frequency of words stuttered
- ❧ Few, if any, secondary behaviors
- ❧ Disfluencies on initial, medial, and final sounds
- ❧ Disfluencies on content and function words
- ❧ No adaptation effect
- ❧ Speaker is not usually anxious about his speech

Neurogenic Stuttering-Treatment

- ❧ Fluency enhancing techniques (we'll get more into this later)
- ❧ Differentiating fluency, speech, language components

Psychogenic Stuttering



- ❧ Frequent disruptions in the forward flow of speech associated with identifiable psychological disorder

Psychogenic Stuttering- Etiology



- ❧ Psychological disorder
- ❧ Not the same as the anxieties that people with developmental stuttering might develop over time.
- ❧ The psychological disorder **CAUSES** the stuttering

Psychogenic Stuttering-Symptoms

- ❧ Sudden onset, with no previous history
- ❧ Primary disfluency is rapid initial syllable repetition

Psychogenic Stuttering-Treatment

- ❧ Very difficult—primary approach is to address psychological disorder

Terminology 101



- Person who stutters or stutterer?
 - Different people prefer different terminology, but it is always safe to use person-first terminology (person who stutters)

History Lessons



- Stuttering has existed in all cultures and races
 - Evidence exists that people stuttered as far back as 40 centuries ago

What Causes Stuttering?



- ❧ We don't know for sure, but it appears to be related to:
 - ❧ Genetics
 - ❧ Neurophysiological predisposition

Can Stuttering Be Cured?



- ❧ Many young children recover from normal disfluency on their own, without treatment
- ❧ Treatment outcomes are excellent (if you do the right things) for children under age 6
- ❧ For children ages 7 and older, treatment becomes more about management, and less about elimination

Types of Disfluencies



- ❧ Repetitions: Repeat a sound, word, or phrases over and over again.
- ❧ Prolongations: Make a sound longer than it should be.
- ❧ Blocks: Get completely stuck and no sound comes out.
- ❧ Interjections: Extra words (um, uh, like).
- ❧ Revisions: Fixing errors

Hey, I Do Some of Those, But I Don't Stutter!



- | | |
|---|---|
| <ul style="list-style-type: none"> ❧ Stuttering Disfluencies <ul style="list-style-type: none"> ❧ Sound, syllable, word repetitions ❧ Prolongations ❧ Blocks | <ul style="list-style-type: none"> ❧ Non-Stuttering Disfluencies <ul style="list-style-type: none"> ❧ Revisions ❧ Interjections ❧ Phrase Repetitions |
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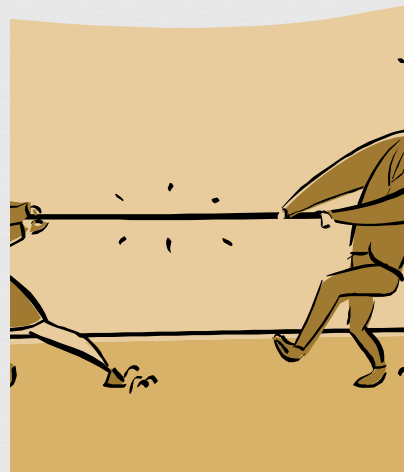
Core Behaviors

- ❧ Involuntary
 - ❧ Repetitions
 - ❧ Prolongations
 - ❧ Blocks



Secondary Behaviors

- ❧ Learned Reactions
 - ❧ Physical Tension
 - ❧ Head, eye, hand, feet movement



Prevalence



- ❧ Prevalence relates to how widespread a disorder is in the current population
- ❧ Approximately 1% of the adult population stutters

Incidence



- ❧ Number of people who stuttered at some point in their lives
- ❧ This is estimated to be approximately 5%
- ❧ What does the higher level of incidence tell us?

Gender



- ❧ Stuttering affects boys more than girls
 - ❧ For adults the ratio is approximately 4:1
 - ❧ For children the ratio is close to 1:1
- ❧ What does this difference tell us?

Age of Onset



- ❧ Stuttering typically develops between the ages of 2-5
- ❧ Initially, there is often great fluctuation of fluency in children, meaning that parents may have difficulty determining if an evaluation is needed
- ❧ Children who develop stuttering later are at great risk for chronic stuttering

Resources



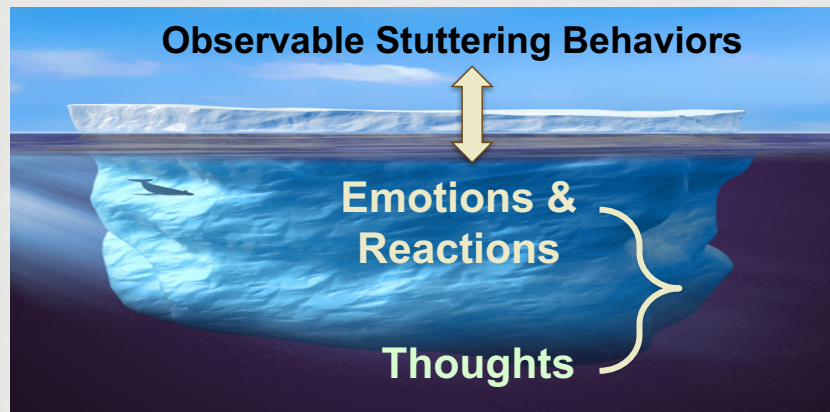
- ❧ National Stuttering Association
 - ❧ www.WeStutter.org
- ❧ FRIENDS: The Association for Children who Stutter
 - ❧ www.friendswhostutter.org
- ❧ The Stuttering Foundation of America
 - ❧ www.stuttersfa.org
- ❧ Stuttering Home Page
 - ❧ www.stutteringhomepage.com
- ❧ ASHA Practice Portal: <http://www.asha.org/Practice-Portal/Clinical-Topics/Childhood-Fluency-Disorders/>
- ❧ Stuttering U.
 - ❧ www.stutteringu.com

Role of Support Groups



- ❧ Provide a great supplement to treatment by allowing individuals to meet others who share similar experiences
- ❧ Need to determine when Support Groups may not be appropriate
- ❧ Clinicians should attend support group meetings when learning about stuttering

"Stuttering is like an iceberg, with only a small part above the waterline and a much bigger part below." ~ Joe Sheehan



Stuttering 101



- ❧ Adaptation effect: Reduction of stuttering over time as a speaker continues to speak (usually repeated readings of the same material or repeated utterances about similar topics)

Stuttering 101



- ❧ Anticipation: The ability for people who stutter to predict when they will stutter
- ❧ Consistency: Tendency for stuttering to occur and reoccur on the same words

Stuttering 101



- ❧ Stuttering usually decreases or does not occur in the following situations:
 - ❧ Choral reading
 - ❧ Whispering
 - ❧ Singing

Stuttering 101



- ❧ Word position: More stuttering on initial sounds of words than later sounds
- ❧ Sentence position: More stuttering on initial word of phrase or sentence than later words
- ❧ Word length: more stuttering on longer than shorter words

Stuttering 101



- ❧ Syllable stress: more stuttering on stressed than unstressed syllables
- ❧ Consonant: more stuttering on consonants than vowels
- ❧ More stuttering on words less predictable from context than words more predictable

Stuttering 101



- ❧ More likely when:
 - ❧ Talking to a “superior”
 - ❧ Time pressure
 - ❧ Negative listener reaction to stuttering
- ❧ Less likely when:
 - ❧ Novel modes of speaking
 - ❧ Associated activity

Where We Have Been...



- ❧ Stuttering as...
 - ❧ A learned behavior
 - ❧ An emotional disorder
 - ❧ A disorder caused by diagnosis

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Where We Are...



- ❧ Genetics
- ❧ Neurophysiology
- ❧ Demands and Capacities

Demands and Capacities



- ❧ Should be viewed in terms of the speech/language relationship
 - ❧ Sentence Structure
 - ❧ Vocabulary
 - ❧ Phonological complexity
 - ❧ Language Formulation
 - ❧ Word Finding
- ❧ Should also be viewed in terms of all factors interacting together

Resources



- ❧ Bakker, K., Myers, F. L., Raphael, L. J., & St. Louis, K. O. (2011). A preliminary comparison of speech rate, self-evaluation, and disfluency of people who speak exceptionally fast, clutter, or speak normally. In D. Ward & K. Scaler Scott (Eds.), *Cluttering: Research, intervention and education* (pp. 45-66). East Sussex, UK: Psychology Press.
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