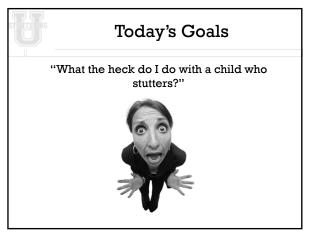


Today's Goals

- Provide a brief overview on our current understanding of stuttering
- Provide detailed information about the clinical management of stuttering
 - Goal writing
 - Treatment Activities
 - $\blacksquare \, Counseling$
- $\hfill\square$ Provide an opportunity for case discussions
- $\hfill\square$ And to help you answer the question...

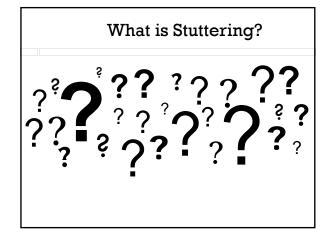


Workshop Overview

- $\hfill\square$ Overview of Fluency Disorders
- Assessment
- \square Treatment
- □ Treatment Activities
- $\hfill\square$ Counseling & Teasing and Bullying

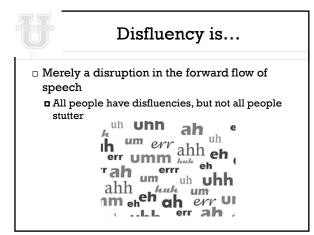
Objectives of this section

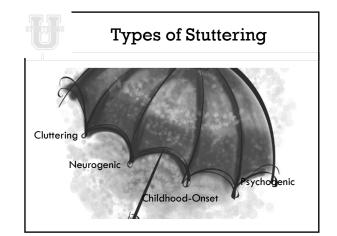
- Be familiar with the current understanding of stuttering
- Be familiar with how to conduct a discussion with a child and/or parent about the causes and nature of stuttering



What is Stuttering?

- 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
- (Coleman, 2013)





"Developmental"

- □ An incorrect term!
- Stuttering is not "developmental"
- □ The term we should use is <u>"childhood onset</u> <u>stuttering"</u>
- Plus, third-party reimbursement will be less likely to reimburse a disorder that is labeled "developmental"

Less Common Stuttering

- \square Neurogenic
 - A fluency disorder that results from damage to the nervous system
 - May occur following stroke, brain trauma, surgery, drug use

Less Common Stuttering

Psychogenic

- Frequent disruptions in the forward flow of speech associated with identifiable psychological disorder
- The psychological disorder CAUSES the stuttering
- Not the same as the anxieties that people with developmental stuttering might develop over time.

Don't forget about Cluttering

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



Cluttering

- 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

Types of Disfluencies

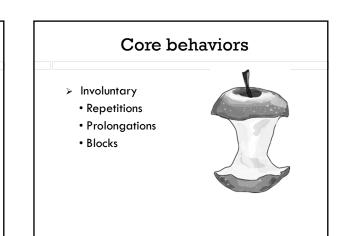
- Repetitions
- Repeat a sound, word, or phrases over and over again.
- Prolongations
- Make a sound longer than it should be.
 Blocks
- Diocks
 Get completely stuck and no sound comes out.
- □ Interjections
- Extra words (um, uh, like)
- \square Revisions
- Fixing errors

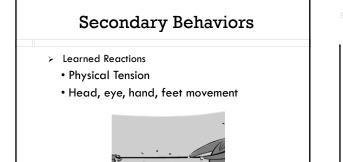


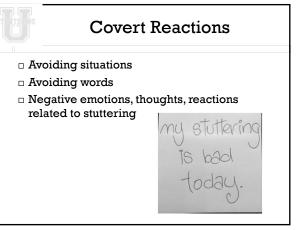
Prolongations Blocks

■ Interjections

Dhrase Repetitions







The hard questions

PARENTS

- Why does my child stutter?
- What did I do wrong?
- Will he be cured?

CHILDREN

- Why do I stutter?
- $\hfill\square$ What did I do wrong?
- \square Will I be cured?

The hard questions

These questions should be addressed as soon as possible to:

- Help families and stutterers to see that stuttering is a physiological disorder, not emotional or voluntary
- Possible that stuttering and therapy can result in changes in neural function and structure
- May ease the burden for some people who think they have caused stuttering

The hard questions

- Discussion on genetics has the potential to alter viewpoint on stuttering from a disorder of emotion to a "medical" disorder
- Note that these conversations may initially increase feelings of guilt for some if their family history is positive for stuttering

The hard questions

Where to start?

 Explain what we currently know about stuttering causes and recovery

Stuttering Causes

- Stuttering as a Physiological Disorder
 Neurophysiology
 Genetics
- Stuttering as a Multifactorial Disorder
 Demands and Capacities
 - Dynamic-Multifactorial

Stuttering Causes

- Why is fluency likely to be compromised by physiological problems?
 - Speech occurs rapidly
 - Speech requires precise control of many variables
 - Speech programming involves simultaneous and successive processes
 - Coordination of all of the complex processes in speaking implies that speakers have powerful timing control

Stuttering Causes

- Adult studies have found that stutterers have:
 Reduced or abnormal activity in the auditory association areas
 - Reduced or abnormal activity in the auditory association areas
 - Increased activity in the right frontal and left cerebellar regions relating to stuttering
 - Abnormal timing relationships between premotor and primary motor regions in the left hemisphere
 - Increased activity in the left putamen, ventral thalamus and inferior anterior cingulate related to stuttering

Stuttering Causes

- In a study with 9-12 year-olds:
- Reduced gray matter volume in speech regions
- No increases found in right hemisphere speech regions
- Reduced white matter in left speech regions identified as a risk factor in persistent stuttering

Stuttering Causes

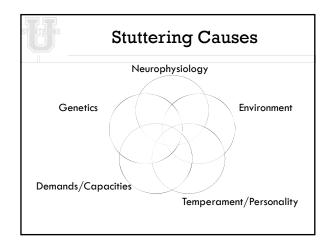
- It has also been consistently shown that genetics play a role in stuttering:
 Independent twin studies
 - Adoption studies
- Large families with many cases of stuttering
- Pinpointing the exact nature of the genetic link has been more elusive
- $\hfill\square$ It has been suggested that ${\sim}50\%$ of stutterers have a genetic influence

Stuttering Causes

- Mutations in the GNPTAB and NAGPA genes on chromosome 12
 - Still only accounts for about 10% of the cases of familial stuttering in one Pakistani sample
- Different genes may be active in different populations
- May produce a defect in neurons associated with speech production

Stuttering Causes

- $\hfill\square$ We also know that stuttering is multifactorial
- Stuttering occurs when a child's demand for speech chronically exceeds the child's capacity to produce speech
- Fluency occurs when capacities exceed demands
- Other factors such as child's temperament, environment, and predisposition also play a role



Recovery

- 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

■ Stuttering in an easier way

- Addressing emotions/reactions
- How to be a stutterer in a "fluent" world

Workshop Overview

- Overview of Fluency Disorders
- Assessment
- Treatment
- $\hfill\square$ Treatment Activities
- Counseling & Teasing and Bullying

Objectives of this section

- Be familiar with how to conduct a case history specific to stuttering
- Be familiar with the assessment tools to measure stuttering behavior and emotions/reactions
- Be familiar with taking a fluency count

Assessment

 For school-age and adolescent children, the main purpose of the evaluation is determining if the child is READY for treatment

Preparing for the Assessment

- Have a protocol for formal and informal assessment procedures:
 - A disfluency count sheet
 - Stuttering Severity Instrument-4
 - May need speech samples from home

Parent Input

- How long has child been stuttering?
- Has stuttering changed over time?
- What types of stuttering is the child exhibiting?
- How much is the child stuttering? Is it improving or getting worse?
- Does the child have any tension when stuttering?
- $\hfill\square$ Does the child seem concerned?
- $\hfill\square$ How are others reacting?
- Is there a family history of stuttering?
- Does the child have any other speech/language issues?

Parent Interview

- □ Are there any other medical concerns?
- How does the child interact with others? Are his interactions impacted on by his stuttering?
- Is the child in preschool/daycare?
- Who else is involved in the child's care on a regular basis?

Child Interview

- Child needs to be interviewed to determine:
 - Child's readiness for treatment ■ Any differences in parent/child beliefs
 - and reports Child's previous experiences in treatment Child's emotional response to disfluency Child's ability to use fluency strategies

Speech Samples

- Observe child in a natural setting if possible (lunch, recess, etc)
 - Examine the child's fluency (disfluency count)
 - $\ensuremath{\,\square}$ Examine their socializations and others reactions
- $\hfill\square$ Clinician interacts with the child
 - Try to gauge fluency in various communication contexts (less pressure vs. more pressure)
 - Begin to determine the child's awareness and response to his stuttering

Other Situations

- Story Retell
- Reading (if applicable)
- D Picture Description
- Interaction with Siblings
- Interaction with Peers



Disfluency Count

- Want to obtain % stuttered words in a speech sample (~400 words) gives us a good representation
- □ As you count, code for types of stuttering
- Divide total number of stuttered words by total number of words

Other Factors

- May need to assess other speech/language areas
- Compare fluency during the assessment with other situations (home, class, socializations)

Recommended **Assessment Tools**

Standard Assessment

- \square SSI-4
 - Measures disfluency rate
- - Measures emotions and reactions

Recommended **Assessment Tools**

Supplemental

- Community Centered Stuttering Assessments Bullying
 - □ Teachers
 - **D** SLPs
 - Parents

http://www.marshall.edu/cohp/index.php/healthservices/mu-speech-and-hearing-center/stutteringclinic/resources2/

SSI-4: Refresher

- Focus on observable characteristics Number of disfluencies
 - Physical Tension
 - Secondary Behaviors

OASES: Refresher

- □ Focus on reactions to stuttering: Feelings and emotions
 - □ Thoughts

 - Difficult speaking situations
 - Avoidance

Factors in Determining if Treatment is Indicated

- Does the child want treatment?
- What are the child's expectations for treatment?
- Can the clinician give the child and parents what they want?
- What are the primary goals of the child and parents?
- □ Is the child ready to make changes?

Workshop Overview

- Overview of Fluency Disorders
- Assessment
- Treatment
- □ Treatment Activities
- Counseling & Teasing and Bullying

Objectives of this section

- Be able to write goals specific to different aspects of stuttering
- Identify barriers to successful stuttering treatment

Putting it all together: Goals & Report Writing

- Goals should address all aspects of the disorder, not just the number of disfluencies
- Goals should be geared toward increasing the overall communication skills of the person who stutters
 - Is it better to speak freely and stutter or avoid situations/words that may be problematic?
- Target the "quantity" AND "quality" of stuttering
- Goals should be individualized

Goals to Address Education

- Children need to be educated about stuttering (Empowerment)
- Education helps the child deal with stuttering long-term rather than getting a "quick fix"
- Helps the child teach others, such as their peers, about stuttering

Sample Goals-Education

- Johnny will increase his knowledge about stuttering by passing 3 quizzes on basic stuttering facts.
- Johnny will educate 2 friends about his stuttering treatment techniques.
- Johnny will give a presentation to his family members, peers, or teachers on stuttering.
- Johnny will participate in periodic stuttering trivia contests that are held with other children who stutter.
- Johnny will be able to identify and explain the process of producing speech and the anatomical structures involved in this process through use of drawings and other illustrations.

Quality and Quantity of Stuttering

- Stuttering Modification: changing the way on stutters
 Easy Stuttering
 - Pull outs
 - Cancellations
- Speech Modification ("Fluency Shaping"): changing the way one talks
 - Easy onsets
 - Pausing and Phrasing
- Important to note that "quantity" and "quality" are not exclusive goals-one often ties in with the other

Quality and Quantity of Stuttering

- Don't place too many of your eggs in this basket—it can be the most variable target
- RELAPSE is not really a word
- 🗆 Toolbox

Goals to Address "Quality" of Stuttering

- These goals should target decreased physical tension during stuttering
- Kids can learn that they sometimes can't control "if" they stutter, but they can control "how" they stutter
- Goals here should also target reduction of secondary behaviors
- These are often stuttering modification techniques

Quality of Stuttering Reduced Tension /Secondary Behaviors

- Tension and secondary behaviors are a learned reaction. They often result from negative reactions toward stuttering
 Desensitization
 - Stuttering Modification
 - Regaining control

Sample Goals-Quality of Stuttering

- Johnny will demonstrate the ability to reduce physical tension during stuttering using the "easing out" technique, for 50% of disfluencies during various tasks.
- Johnny will use cancellation and pull-out techniques for 75% of disfluencies in a structured conversational task.
- Johnny will be able to correctly identify location of physical tension during 80% of stuttering episodes in a structured task.
- Johnny will decrease the use of any secondary behaviors associated with his stuttering to less than 10% of disfluencies.

Goals to Address "Quantity" of Stuttering

- These goals are speech modification techniques
- They target reduction of the number of disfluencies
- Goals should be viewed in terms of reduction, not how often children can speak fluently

Sample Goals Quantity of Stuttering

- Johnny will demonstrate the ability to reduce the number of disfluencies in his speech by using easy starts 85% of the time in a structured conversation.
- Johnny will decrease the number of disfluencies in a structured conversational task by 15%.
- Johnny will demonstrate the ability to reduce the number of disfluencies in his speech by reducing rate of communication by 20%.

Goals for Targeting Overall Communication

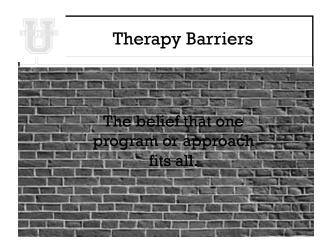
- $\hfill\square$ These are the most important goals
- Goals should heavily target avoidance or negative reactions to stuttering
- Eye contact, turn-taking, topic maintenance, initiating conversations with new partners, discussing the consequences of poor communication, and identifying the consequences of avoidance.
- Incorporate others important to the child (siblings, friends, parents, teachers, etc)

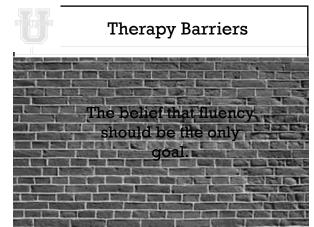
Sample Goals Overall Communication

- Johnny will decrease avoidance behaviors associated with his stuttering by entering 3 specific situations where he previously avoided stuttering.
- Johnny will demonstrate desensitization to stuttering by using 5 pseudostutters during a conversation in the classroom.
- Johnny will increase participation in educational and social situations, as noted on a weekly basis by his parents and teachers.
- Johnny will use correct posture and eye contact 85% of the time in conversational speech with the clinician.

Treatment

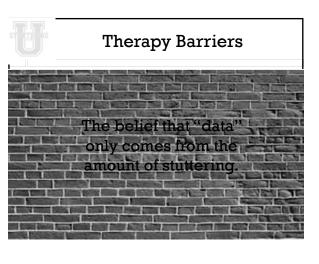
Lets first examine some common beliefs that can act as "walls" to good stuttering therapy

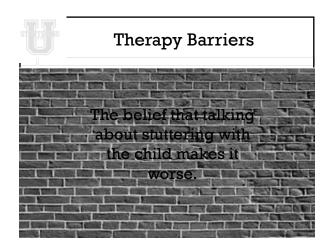


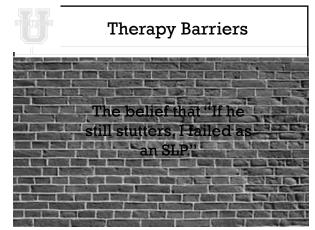


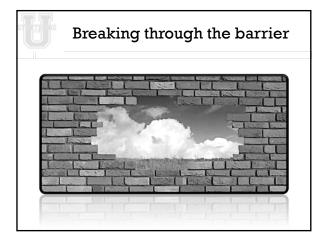
Therapy Barriers

The belief that emotions and reactions will improve with improved fluency.









What to expect

- $\hfill\square$ A non-linear process
- $\hfill\square$ Shift in goals or emphasis on certain goals
- $\hfill\square$ Hard conversations and counseling
- $\hfill\square$ Successes and setbacks (but only if you view them as such)

Introducing the Treatment Process

- The child and his parents need to be made aware of several things early on:
 Stuttering will likely not be cured
 - Goals are to reduce stuttering, reduce tension, increase knowledge of stuttering, increase communication skills, reduce negative reactions to stuttering, help child educate others

Introducing the Treatment Process

Parents involvement is important, but we also must keep in mind the child's willingness to talk about sensitive topics with them (especially older children)

Introducing the Treatment Process

- Make sure that you <u>and the child</u> can describe the rationale for why you're doing what you're doing
- □ Creative approaches can be compatible with EBP...if we can indicate it is working
- We must do what we ask of our patients
- One session or activity can target a few goals
- Have fun!

The most important thing

- Consider the whole child and the impact stuttering has on his whole life and those around him.
- □ The evaluation process should include:
 - Observable Stuttering
 - Emotions/Reactions
 - Overall Communication
 - Impact on family/friends/others

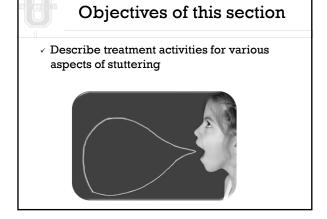
The more risks you allow children to take, the better they learn to take care of themselves. -Roald Dahl

Overall Communication Negative Reactions / Teasing

- Desensitization and education are critical
 Role-playing
- Opportunity to face situations that cause fear

Workshop Overview

- Overview of Fluency Disorders
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- Treatment Activities
- $\hfill\square$ Counseling & Teasing and Bullying



Conceptualizing Activities

- Increased Knowledge
- Stuttering Characteristics
- Overall Communication

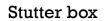
Treatment Activities: Increased Knowledge

BALLOON

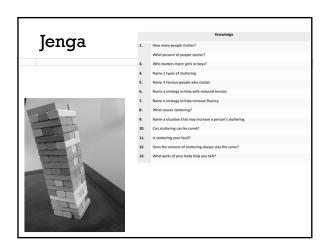
<u>RATIONALE:</u> To (1) Identify and (2) discuss the emotions that may be associated with stuttering, and (3) educate the child how to manage those emotions effectively.

<u>MY STUTTER BOX</u> <u>RATIONALE:</u> Helps children: (1) Take ownership of their stuttering (2) Describe abstract concepts in a way that is concrete and meaningful to them.

JENGA OR ANY OTHER COMMON GAME <u>RATIONALE:</u> To (1) educate (2) desensitize and (3) problem solve about stuttering.







Paper Football

□ Get your own field here:

https://docs.google.com/file/d/0BwivNcO0Y u1RMzg2ZmViZTgtNmZlNy00MWY1LTk1ZG UtNmExZWJjZDQ3YWVm/edit?hl=en_US

Treatment: Overall Communication

RISK ROLL

RATIONALE: Sends the message that we believe in them and desensitizes them to taking risks. Can also "deawfulize" stuttering.

<u>THINGS THAT BUG ME</u> <u>RATIONALE:</u> Allows children to (1) identify speaking situations or feelings that can be targeted for change and (2) begin to develop a game plan.

POST ITS

RATIONALE: Allows students to identify and discuss difficult speaking situations and begin to develop a game plan.



Treatment: Overall Communication

<u>APPLES TO APPLES</u> <u>RATIONALE:</u> Allows children to discuss their personal experiences and perceptions of stuttering.

<u>PLAY DOUGH</u> <u>RATIONALE:</u> Allows children to illustrate their stuttering experience in a way that is meaningful and concrete.

<u>SOCIAL STORIES</u> <u>RATIONALE:</u> Allows children to discuss their stuttering experience in a way that is meaningful and concrete.



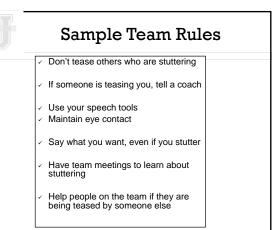
Treatment: Overall Communication

The Great Debate

<u>RATIONALE:</u> Allows children to practice strategies, eye contact, talking without time pressure, turn taking, and content of message.

□ Fantasy Football/Favorite Sport

<u>RATIONALE: Helps children verbalize their beliefs about stuttering</u> and discuss appropriate behavior when interacting with others.



Treatment: Observable Stuttering

\square Mancala

<u>RATIONALE:</u> To help a child decrease speaking rate using visual/kinesthetic feedback

 Easy Versus Hard Road & Angry Birds

<u>RATIONALE:</u> Visually represents how to stutter more easily using a stuttering modification strategy.

\square Card Games

<u>RATIONALE:</u> To practice child's target strategy in a structured speaking task that does not compromise language output.



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

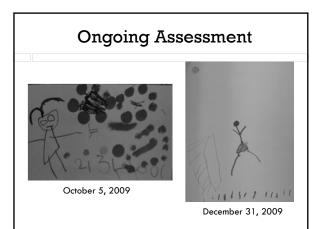
Ongoing Assessment

- Can be qualitative or quantitative
- Should be Comprehensive
- Can get input from child, parent, teachers, etc.
- Suggested resources:
 - OASES-S (Yaruss, Coleman, & Quesal, 2010)
 - SSI-IV (Riley, 2009)
 - Observation Checklists (Chmela, Reardon, 2001; Reardon-Reeves & Yaruss, 2013)

Ongoing Assessment

Considerations in evaluating Progress

- Quality/quantity of stuttering
- Quality/quantity of social-speech interactions
- \blacksquare Self-perceptions
- Speaking environment/Listener reactions



Workshop Overview

- Overview of Fluency Disorders
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- $\hfill\square$ Counseling & Teasing and Bullying



ASHA says "YES!"

 Scope of Practice (ASHA, 2007): "counseling individuals, families, coworkers, educators, and other persons in the community regarding acceptance, adaptation, and decision making about communication and swallowing;"

Uh-Oh!

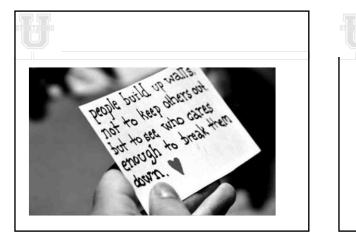
• Despite the fact that "counseling" is in the scope of practice, many SLPs are not receiving formal training in counseling people with communication disorders

What you need to know

- Principles of Counseling
- Model of Counseling
- \succ Counseling in Action
- Disclaimer: You need to know a lot more! This will be what you need to know in an hour!

A few general principles

- $\hfill\square$ Not everybody can do this!
- Have hard conversations
- $\hfill\square$ Recognize when to refer
- If people leave your office crying, you're probably doing something right



What is Counseling?

- Counseling is not what we do, it is who we are.
 - We can't fake it
 - Sometimes we don't say the "right" thing
 - There is no "program" or guide—everyone is different
 - Clients and Clinicians

Principles of Counseling

- do no harm
- become confident and committed
- make it clear that you are for the client
- do not rush to judgment
- keep the clients agenda in focus
- understand diversity
- challenge whatever blind spots you may have
- challenge the client
- be an advocate
- (Adapted from Egan, 2007)

How to we achieve Principles?

- Identifying
- Listening
- Calibrating
- Helping
- Supporting
- Challenging

Identifying

- initial awareness
- urgency
- initial search for remedies
- estimation of cost
- deliberation
- rational decision
- rational emotional decision
- (Eagan—you will see him a lot; He is basically my counseling Sensei)



Active Listening

- Active listening is about being able to "hear" our clients—both verbal and nonverbal
- SLPs have some difficulty with this—WE LIKE TO TALK!
- \blacktriangleright Use the 5-second rule

Calibrating

- Recall the client-clinician relationship:
- According to Wampold and colleagues, it accounts for about 80% of the treatment outcomes in psychology

Calibration Tools

- Empathy (not sympathy)
- Take time, listen, give short responses, be yourself!
- "You should feel...." Pretty agitated when someone tells you how to feel!
- Microskills: posture, eye contact, relaxed and natural, lean-in
- Blink for "malpractice"

Remember

- You can't be an effective counselor without having a strong personal relationship with the client.
 - "Treat everyone equally."
 - Uh-not quite

Helping

- Results
- Impact
- Change
- Outcomes

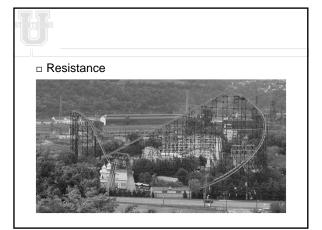
What are some characteristics of a good "helper?"

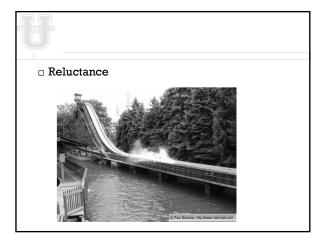
Supporting

- We are not "in-charge" of our clients. We are agents of change. There to provide support to help get them to where they want to be, and where they can be.
- Client has to be wiling to act

Challenging

- Locus of Control-who is ultimately in charge
 - I can't do x because I have y sometimes means I have y so I will not do x.





Reasons for Reluctance

- Fear
- Lack of Trust
- Disorganization
- Shame

Avoidance Strategies

- Discredit
- Persuade
- Devalue
- Seek other support
- Be Passive

Stages of Grief

The Kubler-Ross model of grieving (Kubler-Ross, 1969) was created to describe how people deal with terminal illness. The model has since been used to describe how people deal with other life challenges such as divorce, substance abuse, etc. The model has five stages: Denial, Bargaining, Anger, Depression, Acceptance.

Our Model of Grief Stages

- Lack of Knowledge
- Negative Feelings and Thoughts
- Isolation / Covert
- Willingness to Discuss / Participate
- Acceptance (Coleman, Baker, Scott, Dowler, Miller, 2013)

Model of Counseling

- Back to Egan:
 - 1. Current Scenario
 - 2. Preferred Scenario
 - 3. Action Plan

Final thought on Counseling

Keep it simple:

"If you can't explain it to a six year old, you don't understand it yourself." -Albert Einstein

Teasing & Bullying in Stuttering

- We know that...
- Bullying
 - Intent to harmRepetition
- Imbalance of power
- Verbal, physical, relational, cyber
- Involves
 - Bully
 - Victim
 - Bystander

Prevalence

- □ Langevin, Bortnick, Hammer, Weibe (1998)
- \square In 28 children who stutter:
 - 59% were bullied at some time about their stuttering
 - **D** 56% of those children reported that the bullying was regular (1x/wk or more)
 - \blacksquare 68% were bullied about other things
- Children were more upset when teased about their stuttering than other things

Prevalence

- The children reported
- Imitation of their stuttering
- Being called names
- Being made fun of
- $\hfill\square$ Where did it most often take place?



Prevalence

$\hfill\square$ Blood and Blood

- (2004): 43% of adolescents who stutter were at risk for bullying compared to 11% of their fluent peers
- (2006): 61% of boys who stutter were at risk for bullying compared to 22% of fluent peers
- Can happen as early as preschool and extend throughout school-age years, adolescence, and adulthood.

Consequences

- $\hfill\square$ Hard to "fit in" at school (Evans et al.,2008)
- □ Hughes-Jones (retrospective study of PWS)
 - Decreased self-esteem, confidence
 - Withdrawal, guilt, shame, frustration
 - Negative impact on school work and making friends
 - Increase in stuttering

What's our role?

- \square Prevention is key
 - \blacksquare Increase peer education about stuttering
 - Promote awareness and acceptance of differences
- Help the child become the expert about stuttering
 - Standing up for oneself and being assertive has been found to be an effective strategy when physical/emotional well-being is not at risk

What's our role?

- \square Role-play
- $\hfill\square$ Problem solve
- $\hfill\square$ Educate children about when to get help



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