

**OTHER
FLUENCY
DISORDERS**

Cluttering (tachyphemia)

- **Definition: “a disturbance of fluency involving an abnormally rapid rate and erratic rhythm of speech that impedes intelligibility. Faulty phrasing patterns are usually present so that there are bursts of speech consisting of groups of words that they are not related to the grammatical structure of the sentence. The affected person is usually unaware of any communication impairment.”(APA 1987)**

Cluttering (tachyphemia)

- Rare disorder (5% of fluency disorders)
- tend to do well in scientific careers (generally of average or above-average intelligence...not low intelligence)
- cause: unknown...thought to be neurological

Characteristics:

- Usually repetitions of 6-10 units
- are usually effortless, single syllables, short words and phrases
- poor concentration, short attention span

Characteristics:

- perceptual weakness
- poorly organized thinking
- speaking before clarifying thoughts

Characteristics:

- Phonemes dropped, condensed, or distorted, especially /r/ and /l/ sounds
- grammar problems
- monotone speech...speech that starts loud and trails off into a murmur

Characteristics:

- jerky respiration
- delayed speech/late talking
- reading/writing disorders

Characteristics:

- poor handwriting
- inability to imitate simple rhythmic pattern
- certain brain wave patterns detectable with an EEG

Characteristics:

- late maturation
- clumsiness, uncoordination
- familial history
- slips of the tongue, substituting words without realizing mistakes

Characteristics:

- Stutterer: “I want to go to the sssssssssssstore and I don’t have muh-muh-muh-money.
- Clutterer: “I want to go to the st...uh...place where you buy...market st-st-store and I don’t have muh-muh ti-ti-time money”

Treatment:

- Oral-motor coordination training
- memory and attention span exercises
- working on narrative structure in story telling, emphasizing components such as *who, what, when, where, why*

Treatment:

- DAF (to slow down speech)
- turn taking practice
- role playing (giving directions, job interview)

Neurogenic Stuttering (Acquired)

□ Causes

- strokes, head injuries can cause stuttering-like symptoms in adults, may bring back early stuttering
- head trauma
- progressive diseases (Parkinsons, Alzheimers etc)
- brain tumor
- some drugs

Onset of stuttering in a well adjusted adult may be initial symptom of neurological disease

□ Two forms

– persistent neurogenic stuttering

□ associated with bilateral damage

□ may last a long time

– transient neurogenic stuttering

□ associated with multiple lesions in one cerebral hemisphere

Onset of stuttering in a well adjusted adult may be initial symptom of neurological disease

- Neurogenic stuttering has
 - repetitions, prolongations and blocks.
 - but lacks
 - facial grimaces, eye blinking and fears and anxieties of developmental stuttering
- appears to result from damage to the pyramidal, extrapyramidal, corticobulbar, and cerebellar motor systems

**Assessment of
Neurogenic
Stuttering:
5 Steps**

Assessment of Neurogenic Stuttering:

Step 1

- Complete case history

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 - traumatic events (physical and emotional)

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Assessment of Neurogenic Stuttering:

Step 1

- Complete case history
 - traumatic events (physical and emotional)
 - drug use
 - other diseases

Assessment of Neurogenic Stuttering:

Step 2

- Testing for aphasia

Assessment of Neurogenic Stuttering:

Step 3

- Determining if person only stutters on certain word classes
 - functional words (the and but)
 - substantive, informational words(developmental stuttering usually occurs only on informational words ...neurogenic stutterers will stutter on all classes)

Assessment of Neurogenic Stuttering:

Step 4

- Test adaptation
 - developmental: occurs
 - neurogenic: less likely to occur

Assessment of Neurogenic Stuttering:

Step 5

- Check for disfluencies in automated speech tasks
 - pledge of allegiance, counting to 30
 - developmental: Can, neurogenic: can't

Neurogenic: Treatment

- Brain surgery (to improve blood flow to a restricted hemisphere)
- drugs (anti-seizure meds)
- battery powered electrode stimulator implanted into brain (may improve fluency, reduce pain)

Neurogenic: Treatment

- transcutaneous nerve stimulator
- DAF or white noise masking auditory feedback (MAF)
- Electromyographic biofeedback (relax speech production muscles)
- Pacing board

**WIDE VARIETY OF TREATMENTS
SHOWS THAT NEUROGENIC
STUTTERING IS NOT ONE
DISORDER, BUT A SYMPTOM OF
A VARIETY OF NEUROLOGICAL
DISORDERS**

Dysarthria

□ May see

- phonemes repeated and prolonged
- transient breathy voice
- strained-strangled voice
- voice stoppages
- audible inspiration
- variable rate
- prolonged intervals
- short rushes of speech

□ May confuse diagnosis

Palilalia

- Often confused with stuttering
- Compulsive repetition of a word, phrase or sentence
- occurs typically in patients with postencephalitic parkinsonism and with pseudobulbar palsy
- increased rate of speech as reiteration takes its course
- vocal intensity decreases until no sound, altho patient keeps moving lips

Apraxia of speech

- Impairment of motor speech programming
- may look “stutter-like”
- struggle to form articulatory postures
- groping

Apraxia of speech

- slow down in struggle
- stress/prosody off
- repetitions of sounds and syllables common
- change in phoneme when repeated

Parkinson's Disease

□ Not usually associated with
stuttering

BUT

can result in severe blocks,
repetitions, prolongations

Parkinson's Disease

□ Treatment:

maximize respiration

increase vocal fold adduction

Ex: (daily) verbalize 10-20

“ah” sounds as long and
as loud as possible

Psychogenic Stuttering

- Hysterical or malingered stuttering in adults may be unrelated to neurogenic causes
- Begins suddenly after event causing extreme psychological stress

Psychogenic Stuttering

- Characteristics
 - sudden onset-rare

Psychogenic Stuttering

□ Characteristics

- sudden onset-rare

- repetition of initial or stressed syllables

Psychogenic Stuttering

□ Characteristics

- sudden onset-rare
- repetition of initial or stressed syllables
- no fluent speech, even for automatic responses
- indifferent attitude toward stuttering
- no secondary symptoms

Psychogenic Stuttering

- The maladjusted stutterer
 - anxiety related symptomatology

Psychogenic Stuttering

□ Treatment Considerations:

- Multidisciplinary approach
- may require increased emotional support
- may need to include stress management techniques
- group therapy
- family therapy

Spastic Dysphonia

- Repeated blockage of larynx only
- onset in middle age
- affects equal number of men and women

Spastic Dysphonia

- Treatment: Botulism toxin
- Types:
 - Adductor: treatable with botulism toxin
 - Abductor: less treatable, but responds somewhat to voice therapy

**Tourette's syndrome:
not fluency disorder, but
similar to stuttering**

□ Stuttering

- abnormal breathing pattern
- embarrassing physical characteristics
- can substitute more acceptable speech patterns
- support groups
- periods of fluency

□ Tourette's

- abnormal breathing pattern
- embarrassing tics
- can substitute more acceptable tics
- support groups
- tic free periods

- Tourettes: believed to be caused by abnormally high dopamine levels in some part of brain
- Stuttering: some researchers believe stuttering caused by abnormally high dopamine levels in another part of brain

- Both have hereditary factor
- Most effective drug for both to date:
haloperidol, or haldol
- subgroup of Touretters who stutter, and
stutterers with Tourette's

Drug Treatments

□ Haloperidol

- somewhat effective
- strange side effects:
 halucinations

□ Clomipramine

- improved fluency slightly
- side effects: dry mouth, urinary hesitation, constipation and others

Acupuncture

- JSHD, June 1995, “Results of Traditional Acupuncture Intervention for Stuttering”, Craig and Kearns

Acupuncture

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- Found no effect on fluency of two adult male stutterers

The Mentally Retarded

Definition

- American Association on Mental Deficiency (AAMD)
- significantly subaverage general intellectual functioning resulting or associated with concurrent impairments in adaptive behavior and manifested during the developmental period

Definition

- “significantly subaverage”
 - IQ of 70 or below on standardized measures of intelligence
- “developmental period”
 - period of time between conception and the 18th birthday

Prevalence & Incidence

- Prevalence

- 2-3% of general population

- Incidence

- 125,000 births per year

Prevalence of Stuttering in MR

- Variance in studies from 0.8% -20.3%
- “Stuttering...occur(s) more frequently in this population than in any other single identifiable group of people”

Bloodstein, 1981

Within the MR population,
prevalence of stuttering
is especially high
in mentally retarded individuals
with Down's syndrome

Issue in the Research

**Is it stuttering or
cluttering?**

General Characteristics of MR

- Repetitions (syllable/word/phrase)
- prolongations
- rarely revisions/broken words/blocks
- secondary reactions
- subject to same laws as nonretarded PWS with respect to adaptation, consistency, expectancy

Down's syndrome

- More like cluttering?
- insufficient vocabularies
- hurried speech patterns
- no self-consciousness
- little anticipation
- no avoidance

Diagnostic considerations

- Is stuttering a minor annoyance compared to other communication problems?
- Many of the disfluent individuals are unconcerned about their stuttering

Ask yourself these questions:

- What is the nature of the disfluencies observed?
 - Type
 - frequency
 - consistency
 - expectancy
 - adaptation

Ask yourself these questions:

- **What is the relative significance of the disfluencies to the total communicative competency of the individual?**
- **What is the individual's perception of the significance of the disfluencies?**

Ask yourself these questions:

- **To what extent would fluency-enhancing strategies positively affect other aspects of intelligibility?**
- **What are the constraints upon intervention?**

Ask yourself these questions:

- What are the constraints upon intervention?
 - time
 - place
 - frequency of contact
 - length of sessions
 - individual vs. group sessions
 - continuity of services

Ask yourself these questions:

- **What is the prognosis for a sustainable enhanced fluency?**
- **To what extent will increased fluency enhance the individuals ability to communicate and thereby improve the individual's quality of life?**

Therapy

- Most fluency programs for the mentally retarded are exclusively behaviorally focused
- Little or no attention to shaping and reinforcing fluency-facilitating attitudes and feelings

Follow program guidelines with some modifications

- Example: Cooper & Cooper (STAR Process)
 - Structuring stage (Identification)
 - Targeting stage (Modification of behaviors)
 - Adjusting stage (Reinforcement)
 - Regulating stage (develop feeling of fluency control)

Examples of modifications

- allow individual to express feelings and attitudes at *their* level using *their* language
- provide for *overlearning*
- capitalize on supportive personnel