

Childhood-Onset Fluency Disorder (Stuttering)

An Informational Handout

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Stuttering is a Speech Disorder

Definition

Childhood-Onset Fluency Disorder (stuttering) reflects a marked impairment in **speech fluency** that is not attributable to stroke or another medical condition, and developmental or mental disorder (Weis, 2013). The *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition), edited by American Psychiatric Association, defines Childhood-Onset Fluency Disorder (Stuttering) as a condition characterized by disturbances in the normal **fluency** and time patterning of speech that are inappropriate for the individual's age and language skills, and persist over time. The onset of symptoms is usually in the early developmental period (APA, 2013, p. 45).

Diagnosis Criteria

According to the *DSM-V*, the disturbances in the normal speech fluency are characterized by one or more of the following:

Sound and syllable repetitions (part-word repetitions) (ba – baby)

Sound prolongations (S>>>>sometimes)

Broken words (pauses within a word) (Ta – table)

Audible or silent blocking (filled or unfilled pauses in speech) (I like to – go home)

Circumlocutions (word substitutions to avoid a problematic word)

Words pronounced with an excess of physical tension

Monosyllabic whole-word repetitions (“I-I-I see him”)

The other criterion is that “the disturbance [in speech fluency] causes anxiety about speaking or limitations in effective communication, social participation, and academic or occupational performance. . .” (DSM V, 2013)

According to Weis (2013), many children who stutter show co-occurring behaviors when they exhibit their disfluencies. These behaviors usually involve repetitive movement of the head, face, and neck (p. 151).

Etiology (Causes) and Treatment

We do not yet have a comprehensive explanation for the causes of stuttering. Some studies have indicated minor structural or functional differences in brains of people, who stutter, and many studies show no differences whatsoever. **Psycholinguistics** theories and several other theories attempt to explain causes of stuttering, but no single approach, theory, or model is able to explain all cases of stuttering (Nye, at al., 2013; Weis, 2013).

However, a number of studies found strong genetic influences in the **etiology** of stuttering. Research found that stuttering appears to be a disorder that has high heritability and little **shared environment** effect in early childhood. In stuttering, both early recovery and persistence are heritable (Dworzynski, at al., 2007).

According to Nye, at al., (2013), data to support the efficacy of behavioral intervention in children who stutter exists only for a limited number of intervention strategies and they are most effective before age 8. However, there is no single strategy which will work for each and every child who stutters (Nye, at al., 2013).

Onset and Recovery

In more than 75% of cases, an onset of stuttering is between ages 3 and 6 with almost no new cases being reported after age 12 (Dworzynski, at al., 2007).

Boys are 2 to 5 times more likely to exhibit stuttering than girls Boys usually have later onset and are less likely to recover than girls (Dworzynski, at al., 2007).

According to Yairi and his colleagues (1996), boys begin stuttering, on average, 5 months later than girls, and their later age of onset may be related to slower language and **phonological** development. Referral to intervention (Speech Therapy) during preschool years may be necessary, especially for boys who started to stutter later. "When there is less time between stuttering onset and school age, treatment decisions may need to be made sooner than with a younger child" (Yairi at al. 1996, p. 72).

Many preschool age children who stutter naturally recover from their disfluencies. The highest rate (70% or higher) of recovery exists during the first 15 months post-onset. Approximately 5% of preschool children are affected, but by the end of junior high school this percentage drops to 1% and remains at this level throughout life (Dworzynski, at al., 2007)

Children who are bilingual usually stutter in both their languages (rather than just one). One study found that young children speaking an alternative language and English at home have

an increased risk of stuttering and a lower chance of recovery from stuttering (Howell, Davis, & Williams, 2008).

Stuttering is Not . . .

Stuttering is not a Language Disorder. According to Weis (2013), stuttering reflects an underlying problem with speech production rather than a language problem. Weis stated that “children who stutter know what they want to say, but they have a problem saying it” (p. 150).

Although the chronic stutterers usually perform poorer on phonology, language, and nonverbal skills, than the recovered stutterers, the performance of both groups in these areas of development is likely to be average (Yairi et al. 1996).

Stuttering is not affected by personality. As Guntupalli and his colleagues (2006) stated, there is little conclusive evidence of any specific kind of character structure or **basic personality traits** that is typical of stutterers as a group. Hundreds of studies found that there are no differences in personality or temperament between people who stutter and who do not stutter. People who stutter are not more nervous, tense, or anxious than people who do not stutter (Guntupalli, et al., 2006).

Stuttering is not affected by cognitive abilities. Students who stutter have the same cognitive and language abilities as other students. As Yairi and his colleagues (1996) found, at the ages 7 to 11 school performance was not affected with respect to whether the child stuttered or not (Yairi et al. 1996).

Stuttering is Associated with

Stuttering is associated with **social anxiety** (fear of speech). This associated fear of speech can elevate to the levels that will affect several aspects of learning, quality of life, and the engagement in everyday activities of people who stutter (Iverach, & Rapee, 2014). However, according to Weis (2013), most children who stutter do not report anxiety about public speaking until age 4 or 5. Only older children and adolescents who stutter expect speaking to be anxiety-provoking and difficult and report negative thoughts associated with certain situations: public speaking, answering the phone, and saying their own name. This evidence suggests that stuttering is not caused by anxiety. Fear of speaking is rather a consequence of repeated episodes of speech disfluency in uncomfortable speaking environments (Haynes, Moran, Pindzola, 2006).

Interestingly, “nearly all children report a dramatic reduction in stuttering when they sing, speak to an infant or a pet, or read aloud the passage in unison with a large group of students” (Weis, 2013, p. 151).

Stereotypes about Stuttering

There is a stigma attached to the disorder of stuttering. Stuttering stereotypes are persistent and omnipresent in many populations (Guntupalli, et al., 2006; Langevin & Prasad, 2012). Those who do not stutter typically view those who do in stereotypic and negative ways, such as assuming that a person who stutters is nervous, shy, introverted, passive, and prone to psychological problems. This so-called “stuttering stereotype” has been found even in 3–5 year-old and 6–13 year-old children, as well as in adolescents and adults (Flynn, & Louis, 2011; Guntupalli, et al., 2006).

According to research:

- Because of such negative attitudes, a proportion of the peer group may be disinclined to associate with children who stutter and that they may be more inclined to react with frustration when listening to stuttered speech (Langevin & Prasad, 2012).
- Children who stutter are less accepted socially than their typically fluent peers, less likely to be perceived as leaders, and have fewer friends (Langevin & Prasad, 2012).
- In the school settings, these attitudes can be improved by a presentation on stuttering. This would be even more effective via a live presentation performed by a person who stutters, rather than a professionally prepared video, as Flynn and Louis found (2011).

There is a need in both the **universal and individual level of intervention** to improve attitudes toward all children who are victimized, including children who have exceptionalities such as stuttering (Langevin & Prasad, 2012). However, a preschool child who stutters may experience less social repercussions than a child in kindergarten or first grade (Flynn, & Louis, 2011; Yairi et al., 1996).

Instinctive Negative Reactions to a Stuttered Speech

Guntupalli, Kalinowski, Nanjundeswaran, Saltuklaroglu, and Everhart (2006) explained that stuttering stereotypes may not manifest because of what stuttering does to the stutterer but they appear to arise because of what stuttering does to the listener. People who do not stutter simply react differently to overt stuttering behaviors than they do to fluent speech. Listeners tend to negatively react at a very basic physiological level to a speakers' atypical speech behavior. Research found that fluent adults viewing and listening to the stuttered speech experienced increased emotional arousal and a pervasive feeling of unpleasantness. The listeners are not to be blamed for their response, as they are only reacting at a very basic physiological level. Such reactions, however, may severely impair the communicative capabilities of those who stutter. Understanding listeners' instinctive emotional and physiological responses can help a student who

stutters to develop coping strategies “to deal with the host of potential social penalties associated with stuttering” (Guntupalli, et al., 2006. p. 6).

Glossary

Fluency refers to the ease and automaticity of speech. Fluency has several components including rate (the speed at which people speak), duration (the length of time of individual speech sounds), rhythm ((the flow and fluidity of sounds), and sequence (the order of sounds). Fluency is important to speech because it increases the likelihood that listeners will understand speakers and respond appropriately (Weis, 2013).

Non-fluency (or disfluency) characterized by disturbances in normal fluency of speech,(DSM - V, 2013).

Phonology refers to the sounds of a language and the rules for combining these sounds (Weis, 2013, p. 132)

Basic personality traits include “Big-Five” factors that traditionally been labeled as Surgency (or Extraversion); Agreeableness; Conscientiousness; Emotional Stability (vs. Neuroticism); and Intellect / Openness to Experience (Goldberg, 1993).

Psycholinguistics (or psychology of language) is the study that attempts to explain psychological and neurocognitive foundations of language - the psychological and neurobiological factors that enable people to acquire, use, comprehend and produce language (Weis, 2013)

Etiology is the cause or causes of a disease or abnormal condition.

Shared environmental factors are the experiences common for to siblings (same parents, same home). Shared environmental experiences make siblings alike. In contrast, **nonshared environmental factors** are the experiences that differ between siblings (different sports, friends, or different relationships with parents) (Weis, 2013).

Subclinical fears. A term **subclinical** is related to a condition that is not severe enough to present definite or readily observable symptoms of a disease or disorder.

Bullying consensus is the situation in the group where the students, who are not bullies, do not interrupt bullying on behalf of the victim.

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