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Bucket Analogy for Factors Associated with Childhood Stuttering

**by Craig Coleman
from Pennsylvania, USA**

Assessment and treatment of childhood stuttering involves a significant amount of interaction with parents. In fact, at early ages (between ages 2 through 6), parents are the cornerstone of many treatment approaches. One of the most frequent questions that clinicians encounter from parents during clinical interactions at this stage involves the cause of stuttering.

While we do not yet know the exact cause of stuttering, we do know of some factors that are likely to impact a child's fluency skills during these early years. Our program at the Stuttering Center of Western Pennsylvania at Children's Hospital of Pittsburgh (CHP) utilizes a handout called the "Bucket Analogy" to demonstrate the factors that are potentially associated with childhood stuttering. This handout was first developed by David Hammer, MA CCC-SLP at CHP and can be found at our website (<http://www.stutteringcenter.org/PDF/2004%20SCWP%20Bucket%20Analogy.pdf>) or [here](#) and has been described previously within the larger context of our entire treatment protocol (Yaruss, Coleman, & Hammer, 2006).

Factors Potentially Associated with Childhood Stuttering



The Bucket Analogy serves to demonstrate that one isolated factor typically does not "cause" a child to start stuttering. Instead, genetic, environmental, and personality factors all play a role. Risk factors in the bucket are divided into three categories: child factors (family history of stuttering, concomitant speech and language disorders, intense personality, perfectionistic tendencies, and high degree of sensitivity), interpersonal stressors (major life changes and traumatic events, marital and sibling conflicts, unrealistic demands, and fast-paced unpredictable lifestyles), and communicative stressors (negative response to disfluency, demanding questioning, frequent interruptions, competition for talking time, and rapid rate of conversation).

Each of the factors in the bucket represents a "drop." The more "drops" a child has, the more likely it is that the bucket will overflow and stuttering will be observed. While this seems to be a straightforward way to present the information to parents, many caveats need to be explained to ensure that parents have all the information.

First, the size of a child's "bucket" is often related to their intrinsic motor and linguistic skills. Children that excel in these areas may have larger "buckets" and more factors may be needed for stuttering to be displayed. Children with more fragile speech and language systems are likely to have a much smaller "bucket," and thus, fewer risk factors may be needed to result in stuttering.

Second, many of the risk factors described in the bucket do not cause stuttering. For example, many children have intense personalities and live in less than ideal communicative environments, yet they do not stutter. While many of the factors in the bucket do not cause stuttering, they can

contribute to it becoming more or less intense. A useful analogy may be with Type 1 diabetes, which like stuttering, has shown to have strong genetic predispositions. While frequently eating candy bars and cookies does not "cause" a child to develop Type 1 diabetes, it is generally not a good diet to consume if one is already a diabetic.

Finally, it is important to help parents see what factors they can change and what factors are more out of their control. For example, genetics and personality tend to be much more difficult or impossible to change, while communicative environment and interpersonal stressors are often more open to change.

We have seen that the Bucket Analogy is effective at both the initial counseling with parents of children who stutter and in cases where children straddle the fence between normal disfluencies and mild stuttering. This analogy can often help parents see why changes in fluency can be so volatile, as so many different factors play a possible role.

References

Yaruss, J.S., Coleman, C., & Hammer, D. (2006). Treating preschool children who stutter: Description and preliminary evaluation of a family-focused treatment approach. *Language, Speech, Hearing Services in Schools*, vol. 37, pp. 118-138.

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