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## *May is Better Hearing and Speech Month Communication Disorders are Treatable*

*From the desk of*

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In the month of May, most speech-language pathologists think about how to draw people's attention to the needs of the people who are not able to communicate or swallow. These basic human needs impact people's lives dramatically. Speech pathology as a profession is emerging to be in the forefront of tackling these issues that can sometimes be challenging.

The greatest change, in my opinion, that has occurred in the last few years, is the use of technology in speech therapy. In our office, we have individuals who are so apraxic that they cannot utter a word. However, when we give them an augmentative communication device, we realize that all their thoughts and language are mostly there. It is just that they cannot talk.

Most speech-language pathologists are using computers and iPads in therapy. Telepractice is being practiced to provide speech therapy to individuals in remote areas where speech therapy is not available. It is very exciting to use technology for improving lives of our clients.

## Role of Posture & Breathing in Speech Therapy

Exhaled air is the power source behind voice and speech production. Good breath support is important because it controls the volume of the voice. The ability to control the flow of exhaled air is critical to producing adequate vocal quality, intonation, stress, rhythm and phrasing. Good posture is important to maintain adequate physiological support for respiration. Some speech pathologists feel that usually, respiration doesn't require attention in treatment because respiratory demands for speech are not great and because improving function at the phonatory, resonatory and articulatory valves generally promotes efficient use of airstream. They feel that some people with significant respiratory compromise do quite well during speech, whereas some with less impairment, breathe atypically and sometimes maladaptively during speech. However, there are many conditions that require careful analysis of the patient's breath support during speech; e.g., dysarthric speakers who do not have significant general respiratory compromise tend to have reduced words per breath group, less variability in breath group length and occasionally take breaths at nonsyntactic boundaries. Such characteristics can negatively influence perceived naturalness of speech and possibly reduce intelligibility. In addition, poor respiration may affect other speech functions, especially phonation.

Breath patterning (or words per breath group) is a crucial aspect of naturalness because it is the foundation on which intonation and stress patterns (prosody) are based. Normal speakers take more than 70% of their breaths at primary syntactic boundaries (e.g., at the end of sentences) and only a few within phrases or clauses. Dysarthric speakers may take less than half of their breaths at primary syntactic boundaries.

Another group of people who often present difficulty with respiration are severe stutterers. We often find stutterers who interrupt their fixations by exhaling almost all of their tidal air and making the speech attempt only when it is markedly reduced. Among some of the most severe secondary behaviors shown by confirmed stutterers are the sudden gasping that seem to be used to interrupt the closure of the airway. Some stutterers resort to speaking on inhalation. These are all strategies that make the speech of the stutterers more bizarre and needs to be eliminated.

In addition to those two groups, there are several other conditions, e.g degenerative neurological diseases, cerebral palsy, spasmodic dysphonia that affect the respiratory system of the individual. Lastly some individuals in the absence of any disease or neurological condition, have acquired a way of speaking that either encourages the use of residual air or speaking on inhalation, and inappropriate phrasing patterns. All of those behaviors cause the speech of the individual to draw negative attention and take away from the message of the speaker.

Thus, attention to speech breathing may be necessary to maximize consistent respiratory support for speech, to ensure appropriate breath group lengths and at the least variability for speech. Treatment planning should explicitly address the possible need to attend to respiration. Where the need exists, management efforts are primarily behavioral and prosthetic.

References:

Riper, Charles Van. "Interruptor Reactions." *The Nature of Stuttering*. Englewood Cliffs, NJ: Prentice-Hall, 1971. 128-29. Print.

Duffy, Joseph R. *Motor Speech Disorders: Substrates, Differential Diagnosis, and Management*. St. Louis, MO: Elsevier Mosby, 2005. Print.

## TRIVIA:

*What was the primary focus of the first speech-language pathologists?*

- a.** Deaf Education   **b.** Stuttering   **c.** Accent Modification   **d.** Pediatric Speech Delay

Answer: b. Stuttering; the first speech-language pathologists (called speech correctionists) focused on improving the speech of people who stuttered in the 1870s.

## Language, A Mysterious Human Machine

*Joi Uzoh, M.A., CCC-SLP*

Language, how people share thoughts with one another using spoken, written or signed words, is a uniquely human skill. If one thinks back on their own experiences, they weren't taught to speak; they just did it after listening to others and being spoken to. The study of language (linguistics) explains that all human languages have certain rules in common for how words may be combined. There are also rules that no language could break. For example, all languages have nouns and verbs and most languages have a past, present and future tense. Some languages have no past tense (i.e., Pirahã of Brazil) and so the culture exists in the present with no discussion of history or past possessions. However, a language breaks the rules without nouns and verbs; they are essential language components.

These restrictions in human languages inspired Jerry Fodor's theory: Language of Thought and Noam Chomsky's Universal Grammar theory. To explain how it is that people are able to acquire complex language, Chomsky theorized that there exists an innate language faculty unique to humans. Language of Thought proposes that, like a computer needs hardware to interpret and use software, the human mind needs a 'universal language' for interpreting and organizing the 'specific' language (English, Chinese, etc.) that a person thinks and speaks. A common metaphor used in the linguistics community is to imagine a factory machine that can be programmed to spit out sentences of any language; its nuts and bolts are always the same, but the software that tells it what to make may vary from English to Chinese. For the purposes of our metaphor, software refers to the language we expose children to.

Universal language, also called mentalese, is the hardware of the factory machine which consists of the most bare-bones constituents of language and rules for combining them into ideas. These parts of the language faculty are believed to be present at birth. They are foundational rules that no language should violate and rules that prevent a child from making certain mistakes on the road to language acquisition. The preexisting language (mentalese) is organized into a series of allowable sentences. Over time, as a child listens to their native tongue (software is put into the machine), the mentalese grammar rules (allowable sentence types) are tweaked until the child has the means to speak their native language fluently.

Many linguists believe in the theory of a critical period. That is, if language is not acquired by a certain age, they will plateau in development, incapable of achieving adult-like complexity without intensive formal instruction at later ages. Evidence is found through the study of feral children; children found living alone in the wild due to unfortunate circumstances. Upon joining modern society, they eventually developed simple communication (after intensive instruction) but never form complex sentences or speak about abstract topics like typically developing children. One may also notice how much easier it is for young children to acquire a second language than those of us who tried to learn Spanish, or French as adolescents. This idea of a critical period supports a need for early intervention amongst children with language disorders.

Children with delayed and disordered language can improve their communication skills through language stimulation supplied by a caregiver or speech-language pathologist. Speech language pathologists have a special skill set for eliciting language in a naturalistic way; the way our brains were meant to absorb language rather than explicit teaching. They guide parents and caregivers to continue specific behaviors at home that will stimulate language development.

References:

Fodor, J. A. "Propositional Attitudes." Ed. Sherwood J. B. Sugden. *Monist* 61.4 (1978): 501-23. Print.

Chomsky, Noam. *Knowledge of Language: Its Nature, Origin, and Use*. New York: Praeger, 1986. Print