

July 2014 Newsletter

ALTERNATIVE APHASIA TREATMENT: The Benefit of Music and Singing in Aphasia Recovery

The use of song, music and music therapy offers many benefits for stroke survivors and people with aphasia in treatment and recovery. Singing, like speaking, is a natural human and expressive ability . The use of music and music therapy for aphasia, apraxia and dysarthria allows for a multi-modal approach to speech and stroke rehabilitation.

A Globe and Mail 2009 article [1], stated that “the psychological and spiritual benefits of singing and listening to music have long been recognized, and most rehabilitation hospitals have music therapists on staff . . There is a growing body of clinical evidence suggesting that music can play a key role in improving motor function, communication and even cognition for people with a broad range of brain-based conditions.”

Concetta Tomaino, [2]DA, MT-BC, executive director and co-founder of the Institute for Music and Neurologic Function (IMNF) and senior vice president of Music Therapy at Beth Abraham Family of Health Services in the Bronx, NY. says: “ Deficits disappear or minimize when the right music, rhythmic cue, or aspect of music is employed that allows that function to be enabled . . . The research is only starting to validate the efficacy of music therapy or music as a restorative tool to re-stimulate mobility, language and communication, and memory.”

And, current research from the University of Iowa shows that the left temporal pole is a convergence zone for multiple stimulus, including . name recall, faces and landmarks, and musical melodies. Says researcher Amy Belfi [3], a graduate student in neuroscience at the University of Iowa and first author on the paper published in the journal *Neuropsychology*: “The left temporal lobe is a convergence zone that is not devoted to a single stimulus modality . . . This finding supports the theory that the area is an important region for naming unique items, regardless of stimulus modality.”

Belfi goes on to say: "Music transcends what we know about the brain. People who stutter can often sing without a deficit."

In a 2013 Time Magazine article, Stacy Horn [4], author of "Imperfect Harmony: Finding Happiness Singing With Others", describes some of the benefits of singing: “The benefits of singing regularly seem to be cumulative. In one study, singers were found to have lower levels of cortisol, indicating lower stress. A very preliminary investigation suggesting that our heart rates may sync up during group singing could also explain why singing together sometimes feels like a guided group meditation. Study after study has found that singing relieves anxiety and contributes to quality of life. Dr. K. Johnson, a researcher who has focused on older singers, recently began a five year study to examine group singing as an affordable method to improve the health and well-being of older adults.”

Professor Daniel Levitin, a neuroscientist, composer and author of "This is your Brain on Music" 2007 and "The World in Six Songs: How the Musical Brain created Human Nature" 2009, says that music is fundamental to our species, perhaps even more so than language. He says that "music is a common phenomenon that crosses all borders of nationality, race, and culture. A tool for arousing emotions and feelings, music is far more powerful than language; the brain's emotional, language and memory centers are connected during the processing of music - providing what is essentially a synesthetic experience." (5)

Levitin adds: " We've found compelling evidence that musical interventions can play a healthcare role in settings ranging from operating rooms to family clinics." This analysis also points to just how music influences health. The researchers found that listening to and saying music increase the body's production of the antibody immunoglobulin A and natural killer cells the cells that attack invading viruses and boost the immune system's effectiveness. Music also reduces levels of the stress hormone cortisol. (6)

Perhaps these are some reasons, along with the empowering feeling when engaged in music and music-making, that more people are joining choirs and choruses. According to Chorus America, 32.5 million adults sing in choirs, up by almost 10 million over the past six years .

A 2013 study showed that, although communication deficits from aphasia might otherwise negatively impact stroke survivors' relationships and social participation, singing is accessible and enjoyable for many people with aphasia. [7].

And, singing and making music together, is something that social people like to do. (8)

Sources:

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