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"A tendency to act only becomes effectively ingrained in us in proportion to the uninterrupted frequency with which the actions actually occur, and the brain "grows" to their use."

## William James (1/11/1842-8/26/1910) American philosopher and psychologist

James, William. The Laws of Habit. Popular Science Monthly, Vol. 30, February 1887. 1-16.

Stroke Educator, Inc. is committed to educating the wider public about stroke and the 50 state "Aim High for Aphasia!" Aphasia Awareness campaign.

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## **Aphasia Insights!**

Enriched Therapy:
The Next Stage in
Speech Language
Therapy and Aphasia
Recovery.

By Tom Broussard, Ph.D.

I had a stroke and aphasia in September 2011. I was an associate dean at The Heller School at Brandeis University when I fell down on Main Street, Waltham, MA. I lost my language and could

not read, write or speak well.

During therapy, I learned more about conventional (~50 hours) and intensive (~150 hours) therapy

programs. My therapy included 30 sessions/twice weekly/30 minutes each for 15 hours of formal therapy spread across four months. I thought I had good insurance given that many of my friends had therapy of 8, 12, or 16 sessions.

After a month or two, I asked my therapist (as best I could) if there were any intensive programs in the area. She recommended one but it was very expensive (\$25,000 plus hotel) for 6 weeks/30 hours/weekly of speech therapy. It was much too expensive for me and after studying their program on their

website, it looked quite like my own "program."

Of course, at the time, I didn't know that my "program" was as accidental (and therapeutic) as it turned out to be.

That is among the issues to be considered regarding aphasia recovery. I got better based on the activities that I had started (almost) from the beginning. I wasn't told, directed or urged me to act on them.

It was my habit to "keep track" of

my life long before my stroke without knowing that what I was doing after my stroke was highly therapeutic as well.



Speech therapists should explain all the materials, activities, and timing that are needed to understand the long journey towards recovery.

It is also entirely possible that a person with aphasia (PWA) might still be unaware of the vital necessities needed to start the cascading effect of persistent and repetitive language activities that induce experience-dependent neural plasticity.

Even in the absence of understanding the active ingredients of therapy that helps one's language get better, PWA should receive detailed, mandatory prescriptions with daily, weekly, and monthly activities that are needed to get the lifelong learning machinery up, running, and maintained over time.

The process towards self-directed learning and plasticity-induced activities for PWA must be well underway *before* formal therapy comes to an end.

Once I understood the enriched factors that led to my recovery, I could see that most of those activities are needed by most PWA and should be endorsed and prescribed by all speech therapists.

Conventional therapy is designed to help start the process of repairing the language of patients. But the short bursts of intermittent therapy (and any resultant plasticity that might come) is not the silver bullet that some might think. Nothing about recovery is fast or immediate.

All speech therapy must establish an enriched environment using those conventional activities to help create the habits that are needed for the long-term application of *those very same activities* as the way to improve them.

Here are the principles of enriched therapy to date:

1. **Patients History** - Learn more about the personal

- history/resume of your patients including the motivational habits that made them who they were, *before* their stroke.

  Motivation is the start of almost every recovery but it comes from within.
- 2. Various Stimulus Start regular journaling, voice/video recording, pictures, AAC devices, walking/exercise, and other activities early for your patient. Review the evidence at every session. Repetitive, persistent activities are needed to restore the connectivity among and between the neuronal networks.
- 3. **Timing** Start early the long-term therapeutic & habitual processes *long* before the end of conventional therapy. Habit and the underpinning cognitive structure require the repetitive actions to flourish in order for recovery to take effect over time.
- 4. Materials Provide educational materials (i.e., *The ABCs of Aphasia: A Stroke Primer*) to every family who has had a stroke *before* being discharged at the hospital. Hospitals and rehab hospitals are separate stovepipes with little information between them. Provide a useful and educational handoff between the hospitals and the rehab facilities. This can help.
- 5. **Education** Educate PWA, their family, and caregivers about how the brain works and plasticity, the foundation of all

- learning, in words they can understand.
- 6. Recovery Plan Help create a long-term recovery plan before conventional therapy ends that begins the self-directed enriched therapy that is needed. Provide the plan (including high- and low-tech activities, social groups, books clubs, etc.) to the PWA and family such that they can hold the plan in their hands at discharge.

The foundation for recovery for people with aphasia is about the need for long-term, purposeful, self-directed activities.

Those activities are the fuel that induce neuroplasticity; less therapy, less activities, and less stimulus, means less learning, less improvement, and less recovery.

Start early using the principles of enriched therapy to begin the lifelong process of recovery.

Signed: The Johnny Appleseed of Aphasia Awareness