AUTISM SPECTRUM DISORDER
BACKGROUND

Today’s educational system places a great emphasis on providing appropriate services to special needs children, beginning with Early Intervention and continuing through high school age. Some states provide services through a student’s twenty-first year, and then they “age out” of the system without additional therapeutic intervention.

There has been an explosion of information about brain plasticity in the last 10 years about the brain’s ability to change and learn with the proper stimulation and advances in technology. Because of this, a wide range of new therapeutic interventions, which were not previously available to address the needs of older individuals who still exhibit many of the difficulties they had as school-aged children, are now available.

This gap between what is now available and what was available to the “aged out” population forces many older special needs individuals to fall far short of reaching their potential and enjoying even the simple things that life has to offer.

This case report is particularly significant. It chronicles one such “aged out” individual, a 54-year-old man who has been on The Listening Program® (TLP) for four years and who continues to make significant gains in language, social skills, pragmatics, and who demonstrates fewer sensory related issues. He also maintains all changes made over the past four years. This case report demonstrates the benefits of ongoing listening with The Listening Program® Level One, which offers advanced
listening training to continue the development of the brain and maintain the benefits of such training, and demonstrates the creative use of the family of Advanced Brain Technology products.

In May, 2014, R, (J's mother) contacted me seeking help for her 51-year-old autistic son who had recurring dental issues caused by his severe bruxism and his inability to tolerate a mouth guard which could help reduce or alleviate the bruxism. He would also become very anxious during dental or medical appointments.

Two possibilities of what could be responsible for the severe bruxism were discussed:

- Sensory issues related to his diagnosis of autism or
- An oral-facial muscle imbalance resulting in his grinding his teeth in an effort to find a comfortable resting posture for the jaw

J was born in 1962 and by his second birthday his mother, who had been trained as a “Speech Correctionist” in the 1950s, considered the possibility that J could be autistic and scheduled an evaluation at a hospital speech clinic in Ann Arbor, Michigan. That evaluation confirmed her suspicions of autism, and it was recommended J be placed in an institution. This was not a recommendation that J’s mother agreed with, nor one she could follow.

Armed with her background in “Speech Correction” and her love of the arts, she spent many hours providing language, motor, and art-related stimulation by creating and using homemade equipment. Some of her creations included a crawling tunnel, a special balancing teeter-totter, bean bag toss games, sand paper letters, tracing activities, and matching games using pictures from magazines and books.

All of the activities R used were based on Patterning Therapy of Doman-Delacato and The Tracy School for the Deaf (known today as The John Tracy clinic). The motor activities were all focused on cross hemisphere integration and done at home by R. From an early age, J was exposed to classical music and attended many concerts. At the outdoor concerts in the summer, he would often pretend he was the conductor, directing and dancing to the music.

By the time J was four years old, R knew that he needed to be with other children his own age and found a co-op nursery school that would accept him if she were present with him at all times. The co-op was so impressed with her methods and the equipment she brought to use with J that they made her the “equipment chairman” and encouraged her to use her materials with all the children.
As J approached school age, his mother felt the family needed a school district that offered more services for children like J than the one he was currently in. She found the state of New York open and receptive to special needs children. The family relocated to Buffalo, where J was enrolled in public school and received his special education services through BOCES (Board of Co-operative Educational Services). This placement in his home school district lasted until age seven, when it was decided that he needed a more intensive and structured setting.

He was enrolled in a private residential school for autistic children near Rochester, New York, and remained there until the 8th grade. After he finished that school year, he was moved to a group home and placed in a small special education class in a high school where he received his therapies through BOCES. While living in the group home he was taught daily living skills. Upon graduation from high school, J moved into an apartment with other special needs young men and was employed at a sheltered workshop. Unfortunately, sharing the apartment did not work out because J lacked the social, pragmatic, and communication skills needed to deal with the issues that surface when sharing a home with other special needs individuals. He was then placed in his own apartment with a higher level of supportive service which continues to this day, and he is managing very well.

**PROGRAM IMPLEMENTATION AND TREATMENT**

My initial evaluation of J took place at his workshop on May 29, 2014. Present were his support team of a nurse, social worker, and the vocational rehabilitation counselor (who has worked with J for the past 18 years), as well as his older brother, mother, and stepfather. To determine J’s oral facial muscle functioning, I attempted an oral exam, but J was resistant. Nevertheless, I observed a flaccid upper lip and excessive saliva. He did not appear to be swallowing saliva completely and spit into a tissue frequently rather than try to swallow while speaking. Staff and family members reported that this was typical of J.

Another behavior reported was that J cleared his throat frequently and loudly. He would spend up to 20 minutes in the bathroom after lunch and could be heard in nearby offices loudly, forcefully, and repeatedly clearing his throat. His throat clearing was so distinctive and recurring that the staff was aware of his arrival at work even before he entered the building. J demonstrated sound sensitivity to the humming of lights and the clicking of the wall clock, which was very unnerving to him.

J’s conversation was characterized by single-word or yes/no responses, even though I avoided asking yes/no questions. His spontaneous conversation was repetitive, perseverative, and focused on
television shows he had watched. It appeared that talking about TV shows was his default conversational topic. At no time did J try to engage others in a conversational volley.

Once I established rapport with J, he listened to The Listening Program® Level One Sensory Integration 03 with Nature sounds (AC 2 and BC 3). J commented that he heard birds and seemed very relaxed while listening. His family and staff agreed, as R put it, that he exhibited “an immediate change in his posture” and that “his facial appearance seemed very calm.”

I spent three weeks acclimating J to listening to Classic 01 SI (with BC) and teaching him how to set up the equipment on his own, which was quite challenging for him. At the end of these three weeks, his rehabilitation counselor reported that J now seemed to be aware of the presence of other individuals. The counselor stated, “it is as if he sees me as a person for the first time in 18 years.”

On June 30, 2014, J began formal training using The Listening Program® Level One, Blue 01, listening through the Waves multi-sensory bone-conduction headphones, following the condensed cycle of two modules per day with no breaks between modules. Between June 30, 2014, and September 9, 2016, J completed five cycles of Level One (01-10 and then 10-01). In fall 2016 he began the inTime program, which stimulates focus, adaptive responses to stress and increased brain-body connection using rhythmic music listening with adaptive movement activities. He will complete his third cycle at the end of July 2017, at which time he will begin ACHIEVE.

SUMMARY OF CHANGES

According to J’s family, positive changes were seen immediately during the initial listening session. They commented that his facial features seemed to change, and he appeared very relaxed. His vocational rehabilitation counselor, who sees J daily, began reporting positive changes during the three weeks of acclimating J to the program even before he began following the condensed protocol.

On June 18, 2014, she said, “J was very happy and he spontaneously commented, ‘I’m having fun…I’m relaxing and thinking.’” All his comments were made without spitting into a Kleenex, which is a new skill for J. A few days later he spontaneously told his counselor, “I feel good.” When asked why, he said, “The music…I feel calm and smooth.”

Within two weeks of starting the Level One program, another member of the staff who routinely sees J in the community reported that she saw him in the supermarket rather than hearing him first. It is now routine for the staff at the workshop to see J first, rather than being alerted to his presence by
his loud throat clearing. A very early and significant change noted even before his increased language skills was that J had stopped grinding his teeth. He was able to tolerate dental and medical appointments without anxiety or resistance.

J no longer resists the jobs which he could not tolerate before The Listening Program®, such as stuffing boxes with cotton. Previously he refused this job because he did not like the feel of the cotton, but he could not explain why and would become angry and shout that he did not want to do it. Several times in the past when J was unable to communicate his needs, wants, or frustrations, he would punch holes in a wall. If there is a task he is resistant to, he is now able to calmly explain why, rather than becoming angry and agitated.

According to J’s rehabilitation counselor, “TLP has far exceeded everyone’s expectations.” Most recently in May 2017 she said, “Had this intervention been available when J was younger, I doubt he would be in the workshop at all.” He is currently doing so well that the workshop staff is recommending that he begin transitioning to a job in the community. With that goal in mind, he will begin TLP Achieve, which is intended to support improved memory, learning and communication skills, by the end of July 2017 with the focus on Orange and Red Zones.

His mother reports, “He is finally happy in his own skin and is so joyous now.” She also states that prior to J’s training with TLP, talking to J on the phone was unpleasant because of his loud throat clearing and guttural noises, so much so that she would have to hold the phone away from her ear. This has all changed because of his TLP training, and it is her desire to have other adults like her son provided with the same opportunity for fulfilling lives that Advanced Brain Technologies and The Listening Program® have given him.

**FOLLOW-UP RECOMMENDATIONS**
Initiate listening to TLP Achieve by August 2017 to focus on the Orange and Red Zones.

**DISCUSSION**
Since J began his listening training four years ago, he has demonstrated remarkable changes in many areas of his life. Initially it was very difficult for him to use the iPod because of his fine motor skills and the many steps involved to make him independent.

State law prohibits staff at the workshop from assisting him in using the equipment, which necessitated daily assistance from a number of coaches and the provider. After six weeks of daily
training, it appeared that J was ready to be on his own, so his daily supervision was gradually decreased. I now visit J at his apartment only once a month to check the equipment and give him his new listening schedule.

With improvements in his fine motor and language skills, J began to express new interests and wanted to learn how to use a computer, which he has now mastered. This has opened new horizons for him. He is able to share information he has found online and ask questions of others related to topics he has explored on his own. He initiates conversations, introduces himself to new people, and shows an interest in others by asking how they are doing or if they had a good weekend. His latest goal is to learn to play the ukulele. J is a quite different individual from the man I met four years ago.