

# Autism Parenting Magazine

Issue 39



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# New Research Reveals Improved Processing When Therapies Integrated

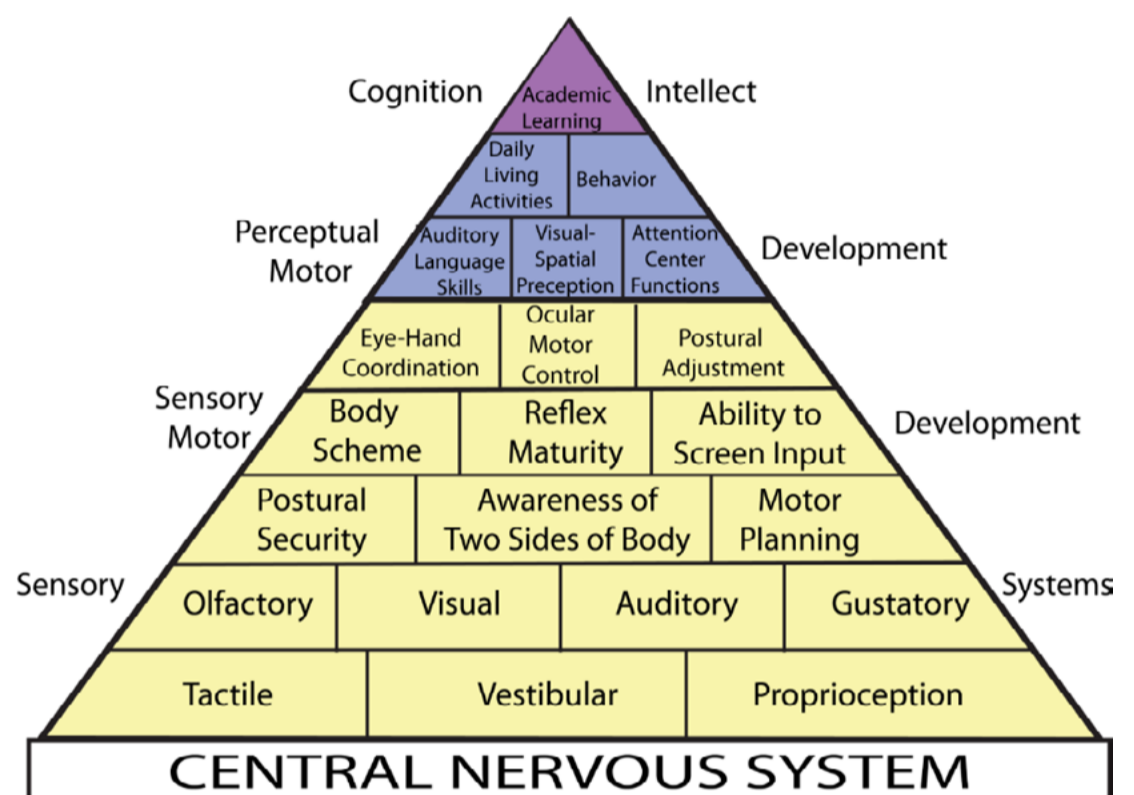
By Debo'rah MERRITT, PhD, LPC, ABA Post-Graduate Certificate

Those of us working with children on the autism spectrum are particularly aware of how important it is to begin treatment at the individual's developmental level; yet somehow, we find ourselves in a therapeutic culture which focuses almost exclusively on the higher brain functions of perceptual and cognitive functions.

The learning pyramid (right) is a good visual metaphor to help us see how, layer upon layer, we build those physiological systems which lead to development of the intellect and the social skills needed for learning. As we move upwards from sensory to motor, then perceptual motor, and finally to the development of higher cognitive functions, it is important to keep in mind that each new level is only as successful as the foundation it rests upon. As a licensed clinician and ABA therapist who has recently broadened her approach (and improved results dramatically), I encourage my colleagues to investigate multi-disciplinary methods which address the whole individual, including the foundational systems of sensory, motor and perception as well as the higher order behaviors targeted in ABA.

New autism research is pointing the way. J. McCleery's meta-analysis of 200 published papers (*Autistica*, April 2013) shows that motor and sensory activities enhance language acquisition: "there is real hope for progress by using interventions based on the role of motor and 'motor mirroring' behavior in toddlers....interventions which focus on motor skills alongside speech and language intervention are showing promising preliminary results."

Mark Wallace of Vanderbilt University (*Journal of Neuroscience* January, 2014) found that "children with autism have difficulty integrating simultaneous infor-



Pyramid of Learning (William & Schellenberger, 1- 4)

mation from eyes and ears... there is a huge amount of effort and energy going into the treatment of children with autism, virtually none of it is based on a strong empirical foundation tied to sensory function . . . if we can fix this deficit in early sensory function then maybe we can see benefits in language and communication and social interactions."

While these findings are making waves in autism, they shouldn't come as a surprise. Dr. Wallace's comments parallel our understanding of neuro-typical populations where most developmental experts agree that sensory integration and motor development lay the groundwork required for successful learning. In the field of autism, the 'deficit in early sensory function' Dr. Wallace refers to is supported by data from the SPD Foundation, which estimates



that over 75% of those with autism have significant symptoms of sensory processing disorder.

As an ABA therapist I realized a few years ago that something was missing from my approach; I was not touching the functions represented by the lower part of the pyramid. As I searched for tools to make me more effective, I created a few criteria to guide me. I wanted something which would a) be complementary to ABA, b) truly address all the foundational systems, including sensory and motor, and c) be evidence based. After a lot of searching, I came across [Integrated Listening Systems'](#) (iLs) sound and movement program.

Every professional should conduct their own due diligence, but I have to say I am grateful to have found a program which truly enhances ABA. More specifically, the issues I am now able to address with a surprisingly high % of success include: anxiety, emotional regulation, sensory processing (esp auditory) and social skills. "Social skills?" you might ask. How can a sound and movement program improve social skills? It might seem counter-intuitive at first, but if you think in terms of the learning pyramid it makes sense: once we are able to process the sensory information around us, we feel safer and more at ease; with our anxiety reduced, language comes more easily and we are able to interact with others; as we interact successfully we become more confident; with increased confidence, we are emboldened to learn, to try new things, and to open up to the world.

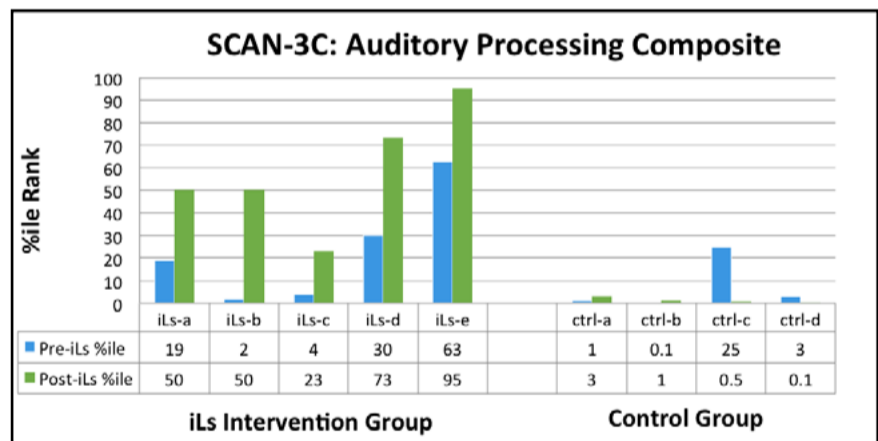
It is interesting to see that a [study conducted by Dr. Teresa May Benson](#) of the Spiral Foundation with 18 children on the autism spectrum showed its most significant results in the area of social skills. After a 50-hour iLs program conducted over a 3-month period, the program was most effective in reducing autism-like behaviors and improving social skills.

Similarly, a [survey conducted with iLs-trained therapists](#) using iLs with over 1300 autism clients showed that 84-87% of the clinicians reported their clients improved in self-regulation, attention, transitions and following verbal directions "often" or "always."

OUTCOME MEASURE	PERCEIVED FREQUENCY OF IMPROVEMENTS USING iLs WITH CHILDREN ON THE AUTISM SPECTRUM		
	Rarely	Sometimes	Often + Always
Self-Regulation		10%	87%
Attention		13%	87%
Transitions	1%	10%	85%
Following Verbal Directions		14%	84%

My effectiveness as an ABA therapist increased dramatically as I began using iLs. My clients are more regulated, they can focus and listen to me, and the hour I spend with them now is truly a full hour of effective, results-filled treatment.

New data is continually coming out which helps explain why I am now able to address issues which were previously outside my scope as an ABA therapist. A school in Florida using iLs with students with autism just came out with a small [controlled study](#) showing that the program improved the auditory processing of those students. It is not difficult to imagine how these children's improved processing ability translated to changes in language, learning and social skills.



As we all develop and expand our tool kits for helping those on the spectrum, let's keep in mind the growing body of evidence for integrating diverse approaches. Many of these different therapies *can be integrated across disciplines, they can complement each other, and they can help.* A lot!

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