



Qigong Sensory Training Institute

## Qigong Sensory Training: Research Summary

**Results from a randomized, controlled design study:** Blinded teacher evaluations showed treated children had a reduction in autistic behavior ( $p < .003$ ) and significant improvement of language/social skills ( $p < .01$ ) compared to controls. Parent data confirmed the findings ( $p < .01$ ) and showed stability of results at ten months. Parent data also showed improvement in sensory impairment ( $p < .01$ ), including normalization of tactile responses to gentle touch and the remaining senses as well as improved sleep, appetite, diarrhea, constipation, and tantrums.

### Overview

Several research studies, including a randomized, controlled design study, have been conducted on the effectiveness of Qigong Sensory Training (QST) for autism spectrum disorder. At the end of five months of QST therapy, treated children show decreased sensory impairment and improved adaptive behaviors compared to the children in the control group. In addition, children with bowel and sleep problems improve. Furthermore, QST has been shown through studies to be associated with significant short-term improvements in adaptive functioning.

### Small, Randomized Control Study

In 2005, a small randomized control study was conducted to test the effectiveness of a qigong massage intervention on sensory impairment and social development in young children with autism (Silva, Cignolini, Warren, Skowron-Gooch, & Budden, 2007). Thirteen children with autism from three to six years of age were randomly assigned to a treatment or a wait-list control group. Both groups of children were enrolled in early intervention services that included occupational therapy and speech therapy. All children were pre- and post-tested with standardized measures of sensory impairment and adaptive behavior. At the end of five months, the children treated showed decreased sensory impairment and

improved adaptive behaviors compared to the

children in the control group. In addition, all children with bowel and sleep problems improved as measured by parent questionnaires (Silva et al., 2007).

### Replication Study

After finding the results of this small study promising, a second study was conducted in order to replicate and extend the research with a larger number of trainers and children. Consideration was given to what would be necessary in a training program for trainers and the most suitable educational background for trainers. The study was designed to determine if similar improvements in children would occur when Western-trained individuals completed a training and skill-development program to deliver this intervention. The 80-hour Qigong Sensory Training (QST) program was piloted and tested with 15 trainers working with 26 children with autism and their parents.

The results of this study suggest that the training was sufficient to teach therapists to effectively deliver the intervention, and that the outcomes can be similar across therapists with different educational backgrounds provided they successfully complete the QST training program (Silva, Ayres, & Schalock, 2008). Furthermore, the results replicate findings from an earlier, controlled study showing that the intervention is associated with significant, short-term improvements in adaptive functioning and with decreases in sensory

impairment on standardized tests.

### **Randomized, Controlled Trial Design Study with Larger Sample**

A randomized, controlled trial design study was then conducted to replicate and extend the second study with a larger sample of 46 children who would receive the five-month intervention and be evaluated by pre-school teachers who were blind to the treatment group, and by parents. By evaluating the child in two different settings, we were seeking more complete information about the child's social/communication abilities and functioning. In addition, we evaluated motor and self-help skills for two reasons, including:

1. Our experience with QST indicates that some children with profound global delays tend to respond to QST by putting their developmental impetus first into catching up motor and self-help skills, and then into developing social and language skills
2. A delay in fine motor skills (i.e. pointing with the index finger) is associated with autism

The research was designed to submit three components of the QST model for autism to treatment and pre-/post-testing:

1. Sensory/system impairment
2. Developmental deficits
3. Autistic behavior

Teachers completed standardized rating scales of autistic behavior and social/language skills. Parents evaluated sensory/system impairments with a questionnaire specifically developed for the purpose of this research, as well as standardized ratings for motor, self-help, social/communication skills, and abnormal behavior. Stability of results reported by parents was evaluated five months after the intervention was over. Results of the study showed that compared to wait-list controls, parent assessments of sensory and system impairment were significantly improved in the QST treated group (Silva, Schalock, Ayres, Bunse, & Budden, in press). Blinded teacher evaluations showed that children receiving the

QST intervention had significant reductions of autistic behavior and improvement of social/language/ communication skills in the classroom. This was confirmed on parent evaluations of behavior and developmental skills. These results replicated those seen in the earlier studies.

### **For More Information**

Visit Qigong Sensory Training Institute's website at [www.qsti.org](http://www.qsti.org) or send an e-mail to [info@qsti.org](mailto:info@qsti.org).

### **Citations**

Silva, L. & Cignolini, A. (2005). A medical qigong methodology for early intervention in autism spectrum disorder: A case series. *American Journal of Chinese Medicine*, 26(2), 315-327.

Silva, L., Cignolini, A., Warren, R., Skowron-Gooch, A., & Budden, S. (2007). Improvement in sensory impairment and social interaction in young children with autism following treatment with an original qigong massage methodology. *American Journal of Chinese Medicine*, 35(3), 393-406.

Silva, L., Ayres, R., & Schalock, M. (September/October 2008). Outcomes of a pilot training program in a qigong massage intervention for young children with autism. *American Journal of Occupational Therapy*, 62(5), 530-538.

Silva, L., Schalock, M., Ayres, R., Bunse, C., & Budden, S. (in press). Treatment of Sensory and Self-Regulation Problems in Young Children with Autism: A Randomized Controlled Trial. *American Journal of Occupational Therapy*.