

# Treating Sensory Disability in Autism with QST Massage Decreases Severity of Autism: A Replication Study

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## Introduction

Sensory disabilities delay development of social and language skills and interfere with behavior and school performance. The sensory disability in autism spectrum disorder (ASD) is characteristically multisensory and severe. It was included in the DSM-V criteria for autism in 2013. Pediatricians and early childhood special education (ECSE) programs are tasked with early identification and treatment of sensory disabilities so that children do not fall behind in school. Until now, there has been no research-based treatment for the sensory disability in autism, and non-research-based sensory treatments have been widely recommended.

Two randomized controlled trials have shown that the sensory disability in autism is treatable with a daily parent-delivered, staff-supported massage protocol directed at normalizing tactile abnormalities (QST massage for autism). We hypothesize that tactile abnormalities pose a barrier to parent touch and underlie excessive sympathetic tone seen in children with ASD. Treatment was effective in low- and high-functioning children and resulted in improvement of all diagnostic components of autism (sensory, social/language, and behavioral) as well as decreased overall severity of autism.

We present results of a replication study evaluating efficacy of QST massage on sensory abnormalities, social, language and behavioral aspects of autism and severity of autism overall.

## Methods

- Multi-site, randomized, single-blind, controlled trial
- 103 children with autism under age 6
- Blinded professional examiners conducted baseline and interval measurements
- Parents completed baseline and interval measurements
- Children received the massage daily from their parents and 20 times from trained professionals during the initial 5-month treatment period

## Results

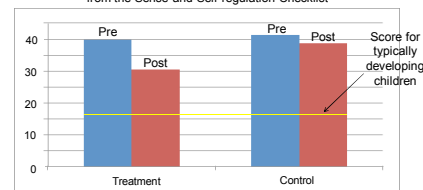
**Five-month outcomes replicated earlier studies and showed significant treatment effects resulting in normalization of:**

- Sensory abnormalities (38%,  $p=.000$ ), including tactile abnormalities (49%,  $p=.000$ )
- Autistic behavior (32%,  $p=.006$ )
- Child-to-parent social interactions and parenting stress (44%,  $p=.000$ )
- Receptive language (18%,  $p=.03$ )
- Overall autism severity (medium to large effect size,  $p=.008$ )

**Treatment was effective in low- and high-functioning children.**

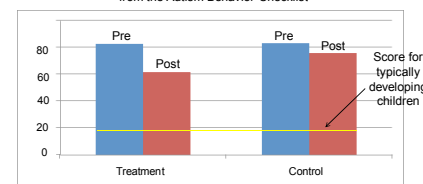
## Abnormal Sensory Responses

from the Sense and Self-regulation Checklist



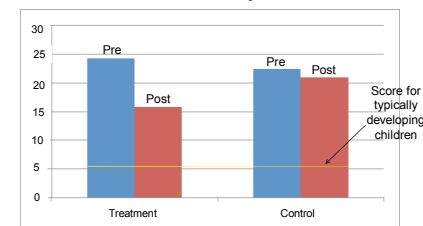
## Autistic Behavior

from the Autism Behavior Checklist



## Parenting Stress

from the Autism Parenting Stress Index



## Conclusions

- QST massage for autism is an effective sensory treatment for autism that reduces the sensory disability, improves language, social interaction and behavior, and reduces the severity of autism overall.
- It is effective in children with severe as well as mild/moderate autism.
- QST massage is a replicated, research-based sensory treatment for autism that reduces the severity of autism and should be recommended by pediatricians and ECSE programs at the time of autism. It should replace non-research-based sensory treatments.

## For More Information

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