



The Effectiveness of Intensive, Short-term Intervention for Sensory Processing Disorder: A retrospective pretest post-test study

SIGNIFICANCE

This study addresses an important need for evidence-based practice providing preliminary information about frequency and duration of treatment for children with sensory challenges and evidence about functional and behavioral measures sensitive to change for inclusion in future prospective studies.

A novel treatment approach was used that combines intensive, short-term, occupational therapy (OT) treatment using principles from sensory integration and DIRFloortime™ and shifts current clinical practice to embrace extensive parent education as an integral part of intervention. Preliminary evidence is presented to support the efficacy of this approach for children with sensory challenges.

APPROACH AND RESULTS

Research question- Does an intensive, short-term model of intervention that combines direct treatment with extensive parent participation impact the adaptive behavior and emotional functioning of children with sensory challenges?

Rationale: Sensory processing problems are a significant impairment for many school-aged children, which may result in more enduring social and emotional problems. Occupational therapists use direct intervention using a sensory integration approach to treat children with these problems, but few studies examine the effectiveness of interventions that combine short-term treatment with parent coaching and education.

Methods –Design and setting- This study used a retrospective pretest and posttest design on a group of children with sensory challenges who participated in an intensive, short-term program of OT intervention. The setting was a private pediatric clinic.

Participants – Ninety-eight children ages 4-13 met criteria for impairment based on standardized testing and clinical observation. Children with known psychiatric or neurological conditions, mental retardation or a physical disorder were excluded. Intervention was conducted three to five times a week for a total of 30 sessions and included six parent only education sessions. Direct treatment utilized strategies from Sensory Integration frame of reference, from DIRFloortime™, Integrated Listening Systems, and cognitive - behavioral strategies. Parent education focused on home strategies guided by clinical reasoning, reframing their child's behavior in terms of sensory issues and problem-solving home solutions using the model of ASECRET.



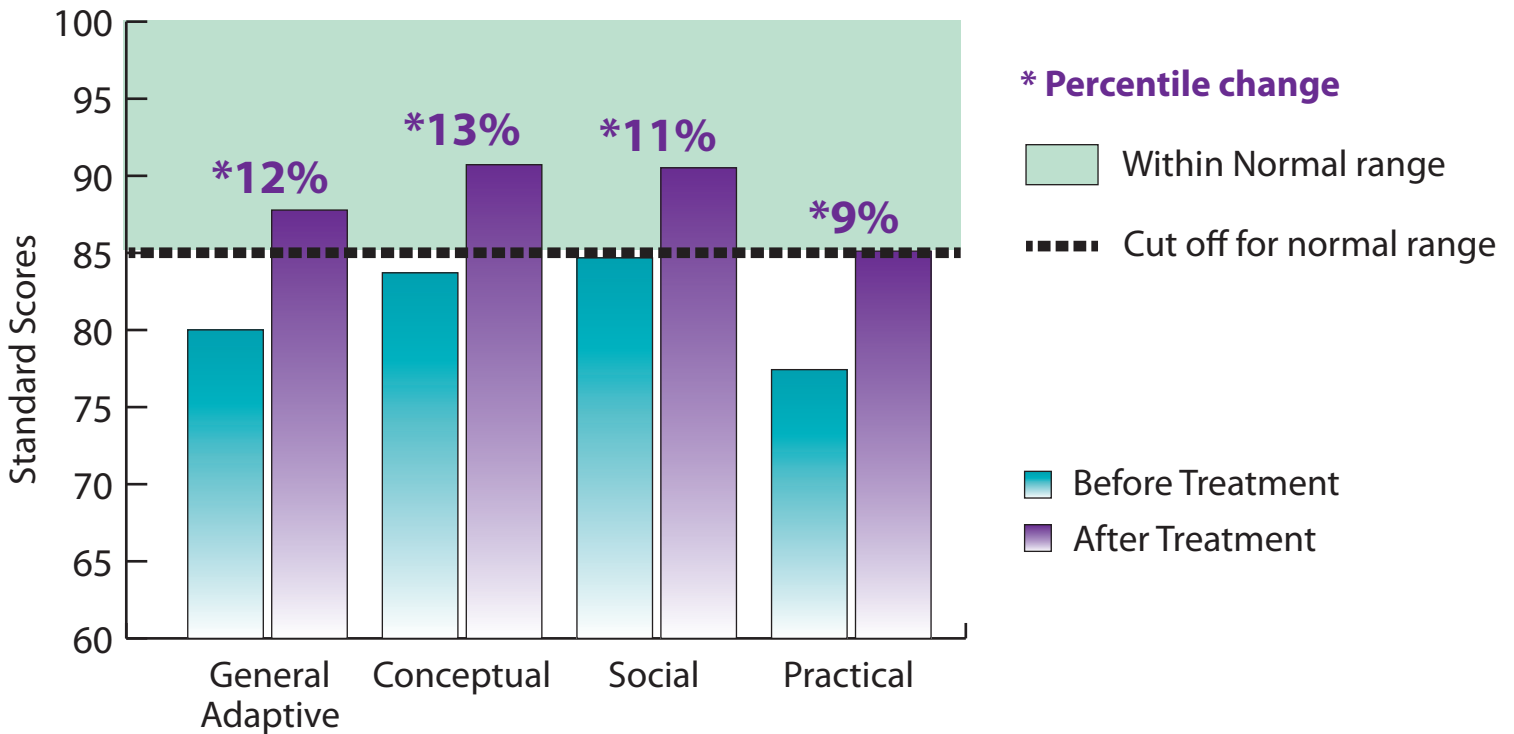
Measures - Outcomes were measured by parent report using the Adaptive Behavior Assessment System (ABAS-II) and the Behavior Assessment System for Children (BASC-2).

Analytical methods- Analyses included the use of nonparametric statistics to assess change in adaptive behavior and emotional functioning. *Results* - Significant pre post improvements were reported for all composite scores of the ABAS-II and the BASC-2. Effects sizes were largest for the practical composite of the ABAS-II ($r = .56$), reflecting ADL and IADL and for the hyperactivity ($r = .43$) and depression ($r = .41$) subtests of the BASC-2.

Conclusions - This study provides preliminary evidence for the effectiveness of a sensory-based intensive, short-term intervention program for children with sensory challenges that pairs direct treatment with parent coaching and parent education. Standardized measures of adaptive functioning and problematic behaviors hold promise for future prospective studies. Limitations are due the study design, which has limited internal and external validity due to the lack of a control group and non-randomization.

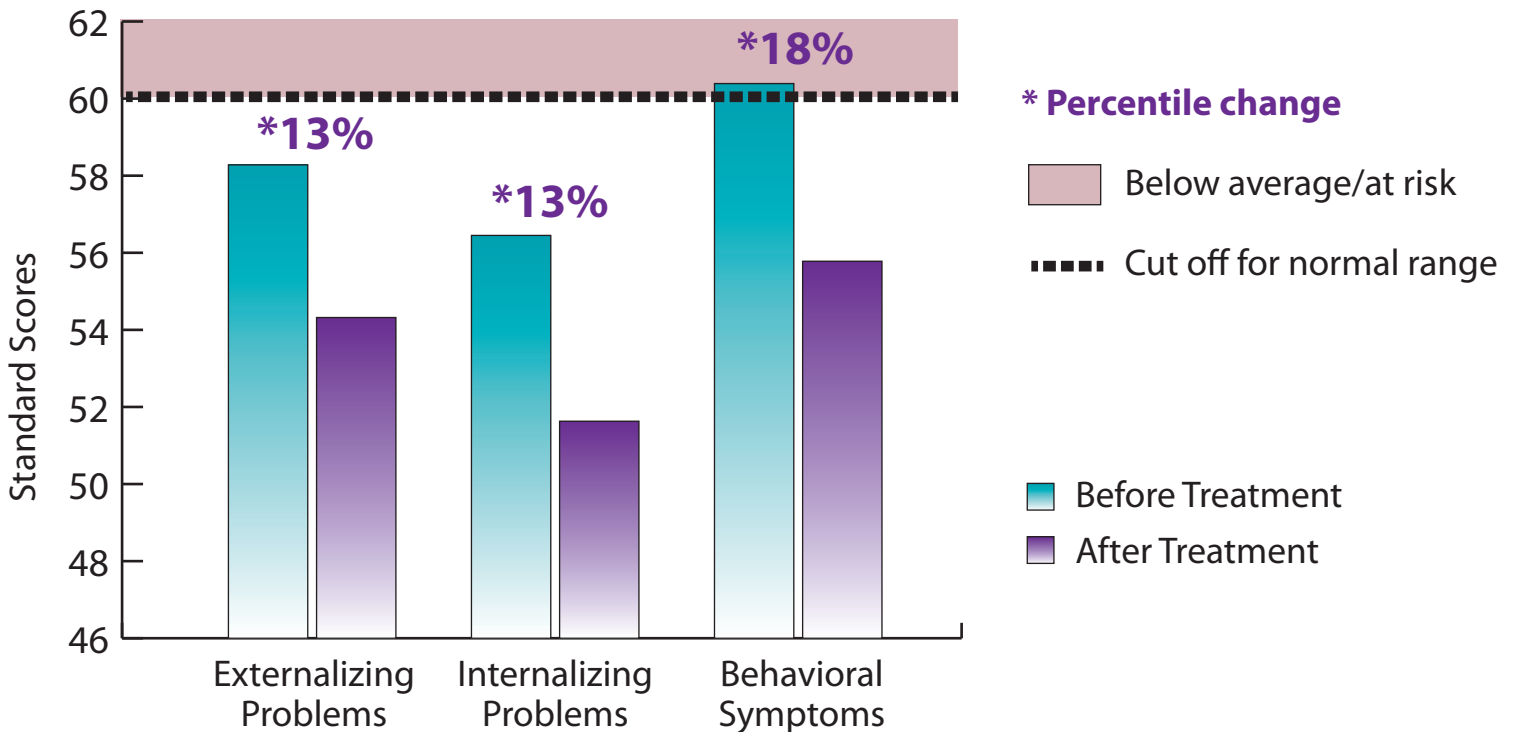
It impacts clinical practice by providing knowledge about frequency and intensity of treatment for children with sensory challenges. It describes a link between direct OT intervention and changes in adaptive behavior as well as identifying measures that are sensitive to change.

Improvements in Adaptive Behavior After Treatment



Higher percentages indicate improved adaptive behavior.

Reduction in Behavior Problems After Treatment



Lower percentages indicate a reduction in behavior problems.