

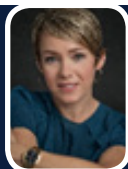
4<sup>th</sup> Annual Conference on  
BRAIN DISORDERS, NEUROLOGY AND THERAPEUTICS

&

2<sup>nd</sup> International Conference on

ALZHEIMERS, DEMENTIA AND RELATED NEURODEGENERATIVE DISEASES

June 10-11, 2019 | Dublin, Ireland



## Rebecca Jackson

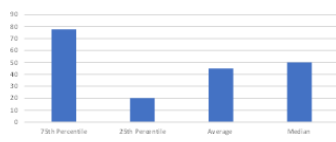
Brain Balance Achievement Centers, USA

### Effects of the brain balance® program on emotional and attentional functioning in children: Preliminary evidence

**Objective:** Sensorimotor deficits are a core feature across developmental conditions and have been linked to decreased cognitive ability, attention, and brain functional connectivity. Given that connectivity in the brains of children can be positively altered by training and practice over time, training programs during childhood may play a critical role in addressing functional deficits in children with learning and developmental issues. The purpose of this study is to evaluate the impact of an integrated whole-child approach (Brain Balance® Program) on emotional and attentional functioning in children with learning and developmental issues. This center-based, hemispheric program aims to integrate sensory input and strengthen motor skills through regular frequency of multimodal activities that target sensory functioning (auditory training, eye coordination and perception exercises, vestibular activities), motor skills (balance and gait training), and exercises to address retained primitive reflexes, along with academic engagement, nutritional support and complementary home-based exercises.

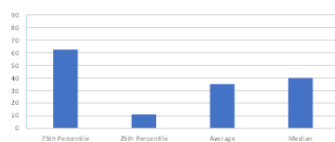
**Methods:** Children (aged 4-17 years) participated in the Brain Balance Program for a duration of 5-6 months (1 hour/day, 3 days/week). Parental surveys were administered prior to program initiation to assess participants' baseline functioning and again after program completion to evaluate changes in participants' emotional and attentional functioning. Parents were instructed to rate each statement in the survey on a numeric scale of 0 to 10 (0 = not observed/does not apply; 10 = frequently observed).

**Effect of the brain balance® program on emotional functioning in children**



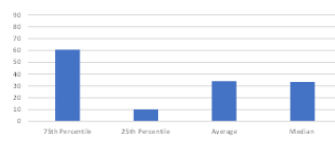
**Figure 1.** Data related to the parental survey item "child often appears to be unhappy." The number of parents that provided survey responses was 630 over 4 years (2015-2018). Shown are data on the percentage improvement in parental responses to this survey item from initial program enrollment to program completion at 5-6 months. The 75th percentile indicates how 75% of children improved the most, and the 25th percentile indicates how 25% of children improved the least.

**Effect of the brain balance® program on anxiety in children**



**Figure 2.** Data related to the parental survey item "child worries a lot." The number of parents that provided survey responses was 1110 over 4 years (2015-2018). Shown are data on the percentage improvement in parental responses to this survey item from initial program enrollment to program completion at 5-6 months. The 75th percentile indicates how 75% of children improved the most, and the 25th percentile indicates how 25% of children improved the least.

**Effect of the brain balance® program on attention in children**



**Figure 3.** Data related to the parental survey item "child has attention difficulties." The number of parents that provided survey responses was 1460 over 4 years (2015-2018). Shown are data on the percentage improvement in parental responses to this survey item from initial program enrollment to program completion at 5-6 months. The 75th percentile indicates how 75% of children improved the most, and the 25th percentile indicates how 25% of children improved the least.

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Enrollment criteria required parental responses of  $\geq 4$  on each survey item. Survey responses were collected for four individual groups of children each year from 2015 to 2018.

**Results:** Preliminary data from parental survey responses indicate improvements related to emotional functioning

(Fig. 1), anxiety (Fig. 2), and attention (Fig. 3).

**Conclusion:** Regular participation in the Brain Balance Program — a comprehensive, multimodal training program — may improve emotional and attentional functioning in children who present with clinical or subclinical developmental or learning challenges.

### Biography

Rebecca Jackson comes to the role of VP of Programs and Outcomes with a depth of knowledge and passion that comes from a strong foundation of education and nearly a decade of first-hand experience at Brain Balance. Prior to joining the Brain Balance corporate team, she served as the Executive Director of three Brain Balance centers, personally overseeing more than 1,000 students' progress through the Brain Balance program. Rebecca graduated from Life University as a Doctor of Chiropractic in 2001. She considers it an honor and a privilege to be so intricately involved with a program that makes such a lasting impact on the lives of kids and their families.

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