

Make our children smarter

Differences in cognitive controls among children with brain injury



Hungary

Boglárka Kormos

Efrat Sher-Censor PhD

International
MA Program
in Child
Development,
University of
Haifa



Introduction

- On account of an injury of the brain certain cognitive controls become affected.
- The prefrontal cortex has a main role in executive functions. (Christ et al., 2003)
- The purpose of the research is to compare the effectiveness of the type of interventions of children with brain injury in terms of developing the cognitive controls.
- The research might reveal the role of holistic treatment of children with brain injury for the first time in Hungary.

Research questions

- Main questions: What is the development of cognitive controls like under different therapies?
- Which does appear the more effective way of attending institutions for children with brain injury– segregated or integrated way of attendance?
- Main hypothesis: children who receive holistic therapy will show better development of cognitive controls.

Participants

1st group – has deficit in the cognitive controls caused by brain injury. /Segregated institution

2nd group - the same problem. /No holistic treatment, integrated institutions

Control group - typical cognitive development, and the same demographic and socioeconomic characteristics.

Procedure

Examinations of the children at the age of 5, 7 and 9 years.



Interventions and Measurements

- **Holistic treatment** - that considers the whole person and deals with any modules (e.g., cognitive, psychological, etc.)
- **Cognitive therapies** - (MLE, BrainRx)
- Assessment of **Attention** - “chair – lamp test”, “Cognitive Profile Test”
- **Inhibitory control** - “delay gratification test”, “Stop-signal task”, Parental reports
- **Planning, working memory** - “Woodcock-Johnson test”, Wechsler Test”
- **Abstract thinking and reasoning** – “Wisconsin Card Sorting Test”, “Raven Progressive Matrix”



Discussion

Hopefully the research will demonstrate the benefits of the holistic treatment of children with brain injury.