Retained Primitive Reflexes and Children with ADHD

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Retained Primitive Reflexes and Children with ADHD

By: Megan Boersen and Olivia Hicks

1 Ask: Research Question
What is the relationship between retained primitive reflexes and children with ADHD?

2a Acquire: Search Terms
Databases: Scopus, PubMed, Clinical Key
Keywords: retained primitive reflexes, persisting primitive reflexes, ADHD

2b Acquire: Selected Articles
Konicarova, Bob, & Raboch (2013): A case control study that examined persisting primitive asymmetrical tonic neck reflex (ATNR) and symmetrical tonic neck reflex (STNR) in relation to the diagnosis of ADHD among girls.
Konicarova & Bob (2013): A case control study that analyzed the persistence of ATNR in children and its relation to symptoms of ADHD compared with a control group.
Konicarova & Bob (2012): A case control study that investigated the relationship between retained Moro and Galant primitive reflexes and the diagnosis of ADHD in children.

3a Appraise: Study Quality
Konicarova, Bob, & Raboch (2013): Level 3, N=65. The study compared girls with ADHD to a control group of 30 girls without ADHD. Subject selection control for medication usage. No randomization was used. Not generalizable to other diagnoses. Conner's Parent Questionnaire (CPQ) assessment was reliable and valid.
Konicarova & Bob (2013): Level 3, N=90. The study compared a group of 60 children with ADHD to a control group of 30 children without ADHD. No randomization was used. Not generalizable to other diagnoses. CPQ assessment was reliable and valid.
Konicarova & Bob (2012): Level 3, N= 40. The study compared 20 children with ADHD to a control group of 20 children without ADHD. No randomization was used. Not generalizable to other diagnoses.

3b Appraise: Study Results
The findings of the three studies all suggested that there is a significant relationship between retained primitive reflexes and ADHD in children. The first study showed significant correlations at p < 0.05 level for ATNR and anxiety, ATNR and perfectionism, STNR and CPQ, and STNR and impulsivity-hyperactivity. Significant correlations at p < 0.01 level were found between ATNR and CPQ, ATNR and impulsivity-hyperactivity, and STNR and learning problems. The second study showed a significant correlation between ATNR scores and ADHD symptoms measured by CPQ total score (r = 0.59, p < 0.01). CPQ subscales including anxiety, impulsivity-hyperactivity, learning problems, and conduct problems were significant at p < 0.01. The third study showed Moro and Galant reflexes in children with ADHD were much more prevalent than those reflexes in healthy children. The average score for the Moro reflex in children with ADHD was 0.85 (SD = 0.81), p < 0.001, which significantly differed from the average score in healthy children 0.05 (SD = 0.22). The average score for the Galant reflex in children with ADHD was 0.70 (SD = 0.92), p = 0.01, which significantly differed from the average score in healthy children 0.10 (SD = 0.44).

4 Apply: Conclusions for Practice
The overall findings supporting the relationship between retained primitive reflexes and ADHD in children can serve an important contribution to the profession of occupational therapy and can guide practice relating to unfinished developmental stages. This information can be used as a resource for occupational therapists to educate parents and caregivers on the current existing evidence. Further research is needed to understand the long term physical and emotional impact on children. Due to limited evidence, additional research is needed to understand the importance of this relationship as it relates to function.

References:

Yes. Limited evidence supports a relationship between retained primitive reflexes and ADHD in children.