INPLASY PROTOCOL

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Association between attention deficit and hyperactivity disorder and primitive reflexes: A systematic review and meta-analysis

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Review question / Objective: The aim of this systematic review is to evaluate the Attention deficit hyperactivity disorder and primitive reflexes. The proposed systematic review will therefore answer the following questions: 1) What relationship exists between primitive reflexes and Attention deficit hyperactivity disorder? 2) What relationship exists between primitive reflexes and Attention deficit hyperactivity disorder child behavior problems? 3) Suggest directions for upcoming studies.

Eligibility criteria: Inclusion and Exclusion Criteria① Clear diagnosis of ADHD symptoms; ② Necessary data not missing; ③ Clear primitive reflex evaluation criteria; ④ Subjects younger than 18 years old; exclusion criteria①Participants diagnosed with dementia, mental health disorders; ② drug intervention; ③Repeated publication or poor quality assessment. ④Reviews, surveys, and conference or case studies.

INTRODUCTION

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Condition being studied: Attention deficit hyperactivity disorder (ADHD). The main symptoms include inability to concentrate for a long time, frequent hyperactivity, and also appear in school, home or public places, followed by a series of conduct, anxiety, and learning problems.

Primitive reflexes have already appeared in the womb of infants. Most of the reflexes will be integrated into the advanced central nervous system 4-6 months after birth, which is a compulsory course in the normal development of children. The normal needs of life, such as sucking, foraging reflex, etc., all appear when infants are just born, helping babies to fulfill their basic survival needs, and also helping our body's motor function development enter the state in advance, and at the same time, along with the brain's advanced nerves The gradual maturation of the central system and the gradual fading of selection.

There is currently evidence of a link between primitive reflexes and ADHD. We found that most children with neurological deficits, autism spectrum disorders, and ADHD suffer from persistent primitive reflexes that interfere with normal developmental processes in children. ADHD symptoms may demonstrate a compensatory process related to disturbances in more primitive neural mechanisms, such as failure to integrate early primitive reflexes. Studies have shown that preschool children with ADHD have higher persistence of primitive reflexes than normal children.

METHODS

Participant or population: Attention deficit hyperactivity disorder children.

Intervention: This systematic review will investigate primitive reflex retention as measured on a scale as well as techniques used to test primitive reflex retention e.g. Schilder test. In addition, the most commonly used techniques and scales will be prioritised. All primitive reflexes and test batteries will be included.

Comparator: This systematic review will investigate what the correlation is between the three phenomena: primitive reflex retention, Attention deficit hyperactivity disorder andbehavioral problems. A comparison group is not needed, however studies that include a comparison group of typically developing children will be considered.No treatment control.

Study designs to be included: Correlation Coefficient Combined. summary r.

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Information sources: PubMed, The Cochrane Library, Web of Science, EBSCO (MEDLINE, APA PsycInfo Em, base ERIC), Scopus, and ProQuest.

Main outcome(s): We are interested in outcomes for relationships between any two of the three phenomena (primitive reflex retention, Attention deficit hyperactivity disorder and behavioral problems).

Quality assessment / Risk of bias analysis: Risk of bias will be assessed in papers using the Agency for Healthcare Research and Quality, AHRQ. Any impact on data synthesis will be reported.

Strategy of data synthesis: The correlation analysis models of the included literature studies are different. In order to ensure the accuracy of the results of this study, the Pearson correlation coefficient was converted into the Spearman correlation coefficient; the conversion between the Pearson correlation coefficient and the Spearman correlation coefficient was implemented in the WPS software. The combined calculation of the summary r

value of the coefficient r values will lead to serious deviations in the results. Therefore, it is necessary to convert the r value of each document to Fisher's Z value first, and then perform the combined calculation between the documents to obtain the summary Fisher's Z value, and then use the summary Fisher's Z value The summary r value is converted, and the final summary r value is the correlation coefficient after the combined calculation of all documents.

Subgroup analysis: Subgroup analysis was performed according to measurement scale, age, gender, etc.

Sensitivity analysis: After deleting any one of the articles, the merged results of the remaining documents were not significantly different from those without deletion, indicating that the sensitivity analysis was passed.

Country(ies) involved: China；Republic of Korea.

Keywords: Attention deficit hyperactivity disorder; primitive reflexes; child.

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