

The Etiology of Attention Deficit Disorder with Hyperactivity: A Protocol for an Umbrella Review

INPLASY2024100026
doi: 10.37766/inplasy2024.10.0026
Received: 7 October 2024
Published: 7 October 2024

Su, WH; Jia, HR; Yang, L; Zhang, JQ; Wei, ZY; Tsikwa, P; Wang, YR.

Corresponding author:
Wang Yanru

wangyanru001@outlook.com

Author Affiliation:
Zhejiang Chinese Medical
University.

ADMINISTRATIVE INFORMATION

Support - None.
Review Stage at time of this submission - Preliminary searches.
Conflicts of interest - None declared.
INPLASY registration number: INPLASY2024100026

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 7 October 2024 and was last updated on 7 October 2024.

INTRODUCTION

Review question / Objective What is the current etiological evidence from systematic reviews and meta-analysis of attention deficit disorder with hyperactivity? How do these factors predict the development of attention deficit disorder with hyperactivity?

Condition being studied ADHD is a common neurodevelopment disorder. It is diagnosed based on DSM-5 mental and behavior criteria. While recent studies reveal that there are more factors that may cause ADHD, from gene to social life. It's important to make it clear what might be the ADHD etiology to improve the treatment of ADHD.

METHODS

Participant or population This umbrella review targets on systematic reviews that include primary studies focusing on People (without age limitation) with ADHD and animal models that are relevant to mimicking ADHD people's behavior are also accepted.

Intervention Any factors which might have influence on the development or etiology of ADHD. Patients influenced by sociopsychological variables, environmental toxicant exposure, genetic biomarkers, and other risk factors.

Comparator ADHD patients/animal who/which have not been exposed to the risk factors under investigation or trial. And neurotypical children and animal models.

Study designs to be included Meta-analysis and systematic reviews.

Eligibility criteria The eligibility criteria established based on the PECOS (Population, Exposure, Comparator, Outcome, Study designs, Setting) statement.

Information sources 6 electronic databases: The Cochrane Library Central, PubMed, Embase, Web of Science, CINAHL, Scopus.

Main outcome(s) Identified or potential ADHD etiological factors reported in systematic reviews and meta-analyses.

Additional outcome(s) Future treatments and therapeutical approaches suggest research linking with high and suggested evidence causes for ADHD.

Quality assessment / Risk of bias analysis Using Endnote and Rayyan software for data analysis, extraction, storage, and duplication removal, 5 independent reviewers will collaborate to determine if each article should be included, all reviewers remaining blind to each other.

Strategy of data synthesis We will use descriptive and narrative synthesis to summarize the different systematic reviews and meta-analyses included, and use ROBIS to assess the risk bias of the included studies, GRADEpro GDT and Evidence Prime to evaluate the quality of the included studies. We will use Excel 2023 software to extract information into a table, including: research characteristics, number of included studies, research types, influencing factors, conclusions, etc. The discussion will be oriented around similarities and differences between the findings of the included studies.

Subgroup analysis The extracted data will be tabulated to help identify commonalities and variations in relevant parameters across the included research. The tabulation will also assist in identifying subgroups within the dataset. We will lay out groupings of similar systematic reviews and/or outcome measures to categorize similar populations or outcomes.

Sensitivity analysis NA.

Country(ies) involved China.

Keywords attention deficit disorder with hyperactivity; etiology; umbrella review.

Contributions of each author

Author 1 - Su Wenhao.

Email: swhandy2023@outlook.com

Author 2 - Jia Hairong.

Email: jiahr3546@outlook.com

Author 3 - Yang Luo.

Email: yangluoyeah@163.com

Author 4 - Zhang Jiaqi.

Email: zzzzhangjiaqi@outlook.com

Author 5 - Wei Zhaoyang.

Email: 1362881885@qq.com

Author 6 - Tsikwa Pepertual.

Email: tsikawa2024@aliyun.com

Author 7 - Wang Yanru.

Email: wangyanru001@outlook.com