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Effect of employing individuals with attention deficit / hyperactivity disorder and autism spectrum disorder on business performance: a systematic review

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#### **ADMINISTRATIVE INFORMATION**

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Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

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**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 August 2025 and was last updated on 15 August 2025.

## **INTRODUCTION**

Relicidate the effects of hiring adults with autism spectrum disorder (ASD) or attention deficit/hyperactivity disorder (ADHD) through competitive employment on employers' activities. This systematic review will search papers that analyzed data from employers and examine factors contributing to their activities, such as employee retention rates and business a chievements, among those with neurodevelopmental disorders.

Rationale Previous literature has primarily focused on "support" from medical or educational perspectives when studying the characteristics of neurodevelopmental disorders such as ASD and ADHD. However, there are still limited findings in the context of "employment," which occupies a significant portion of one's lifetime. The number of cases diagnosed with neurodevelopmental

disorders has increased year after year (e.g., Zablotsky et al., Pediatrics, 2019), and it will become increasingly necessary for people with these disorders to be employed under general employment conditions due to the recent reduction in the labor force in many countries and regions (U.S. Census Bureau, American Community Survey; Employment and Social Developments in Europe 2023, European Commission). For people with those diagnoses themselves, it is important for people with diagnoses to work under general employment conditions and exert their capabilities for economic and social achievement. Given these backgrounds, the question of how to redesign the workplace to better accommodate people with neurodevelopmental disorders, while promoting employer inclusion and sustainability, must be addressed. In this systematic review, we will focus on individual perspectives, such as job retention and work performance, of employees with ADHD/ ASD. We will also focus on employer perspectives, such as productivity improvements and corporate performance, to elucidate the benefits and successful factors of employing people with these conditions.

Condition being studied Our focus will be on the two primary neurodevelopmental disorders: attention deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD). The Diagnostic and Statistical Manual of Mental Disorders, 5th ed.-TR (DSM-5-TR) categorizes these two disorders under Neurodevelopmental Disorders. People with these disorders may not exhibit any obvious changes in their physical appearance or bodily movements rather behavioral aspects. It is expected that individuals with ADHD or ASD may face difficulties in their workplaces due to their conditions.

## **METHODS**

Search strategy This study will be conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. With the support of Y.S., a librarian at our institute, we designed a search strategy based on the PICO (patient/population/problem, intervention, comparison, outcome) framework to ensure the validity, applicability, and completeness of the systematic review. As a result, "Patient" was defined as "ADHD or ASD," "Intervention" as "employed," "Comparison" as "not employed," and "Outcome" as the effects on business performance. For more details, see sections 12 ~ 14, 16, and 18.

Participant or population Employed adults who are clinically diagnosed with ADHD or ASD and their employers.

Intervention Employed status of the individuals with ADHD or ASD.

Comparator Unemployed status of the individuals with ADHD or ASD.

Study designs to be included Review articles, qualitative/quantitative research reports, and metaanalyses will be included.

# **Eligibility criteria**

Inclusion criteria:

The review will include papers on employed adults who have been clinically diagnosed with ASD (including Asperger's disorder and pervasive developmental disorder) as well as ADHD. Regions and countries will not be specified.

Exclusion criteria:

The review will exclude papers on employees under working-age in the country or with any intellectual disorders. We will exclude studies that aimed to investigate students or patients who receive medical support. Studies that aimed to investigate undiagnosed employees, even those with family members who have ASD or ADHD, will be excluded.

Information sources We will search academic papers in the electronic databases such as PubMed, Scopus, Cochrane Library, and PsycINFO.

Main outcome(s) The main outcomes will be business performance, such as employer costs (including personnel and training), operating results, and financial benefits/achievements, as well as work performance, which is indicated by a series of supporting systems, including recruitment, retention, and promotion, that establish business careers for the patients.

Quality assessment / Risk of bias analysis Based on the recent relevant research (Jacobs et al., PLOS One, 2015), we will perform the quality assessment for the full text articles by using the Kmet checklist (Kmet et al., 2004, p. 4). The authors will independently complete the checklist for all articles.

Strategy of data synthesis The authors will independently screen titles and or abstracts of articles resulting from to identify the inclusion and exclusion criteria. Screening of the studies will be conducted against predefined eligibility criteria. The authors will retrieve and review the articles in full. We will show a PRISMA-style flowchart outlining each step of the selection process.

Subgroup analysis Not planned.

Sensitivity analysis Not applicable.

Language restriction English.

Country(ies) involved Japan.

Keywords employment; attention deficit/ hyperactivity disorder; autism spectrum disorder; workplace; work performance; cost benefit analysis; business performance.

#### Contributions of each author

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