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# Predictors of Functional Ability in Autism Spectrum Disorder: A Scoping Review

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# **ADMINISTRATIVE INFORMATION**

Support - Nil.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY20241200045

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 December 2024 and was last updated on 12 December 2024.

### **INTRODUCTION**

Review question / Objective Population :
Autistic Spectrum Disorders. Concept :
Functional ability. Context : Predictor.

Rationale Currently, there are no standardized techniques for predicting functional ability in children with ASD, which can lead to undetected clinical impairments and delayed targeted treatments. To address this issue, a scoping review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria.

Condition being studied This study summarized the potential tools and parameters that may help predict the abilities used in the daily lives of children with ASD. The collected tools varied widely, including clinical questionnaires, physical symptoms, laboratory tests, and imaging studies.

### **METHODS**

Participant or population The scope of implementation spanned all healthcare settings, including in-home care, hospitals, and community care, across diverse geographical locations. Pediatrics typically encompasses the care of individuals from the prenatal period through adolescence (0-18 years of age). However, in some contexts, it may extend to include young adults.

Intervention -.

Comparator -.

**Study designs to be included** Quantitative, qualitative, and mixed-methods research designs.

**Eligibility criteria** This scoping review encompassed extensive research methodologies, including quantitative, qualitative, and mixedmethods research designs. Also, the review was

restricted to studies published in English, as translation of non-English literature was not feasible. To ensure comprehensive analysis, the inclusion criteria were refined to exclude publications that did not provide full reports, such as conference abstracts.

**Information sources** To identify relevant articles on the topic, a preliminary search was conducted in PubMed, Scopus, and Google Scholar. In addition to manually searching pertinent articles, Google Scholar searches were performed to identify relevant gray literature.

Main outcome(s) The study provides an overview of the potential tools or parameters that may help predict the abilities used in the daily activities of children with ASD. The tools collected varied widely, including clinical questionnaires, physical symptoms assessments, laboratory tests, and imaging studies.

Data management All identified records were compiled and uploaded to Rayyan.ai, with duplicates removed.

Quality assessment / Risk of bias analysis The quality of the studies was assessed using the Newcastle-Ottawa Scale (NOS) for cohort and case-control studies, with a modified version of the NOS applied to evaluate the cross-sectional studie.

Strategy of data synthesis The search was conducted from June 24, 2024, to June 29, 2024, and was restricted to English-language publications from the past ten years. Data were extracted from the selected papers by two independent reviewers using a custom-designed data extraction tool. The extracted information included, at minimum, the number of participants, age range, country of study, research design, and ASD characteristics.

**Subgroup analysis** We did not perform any subgroup analysis.

**Sensitivity analysis** We did not perform any sensitivity analysis.

Language restriction English literature only.

Country(ies) involved Indonesia.

**Keywords** Autism Spectrum Disorder, Functional Ability, HFA, LFA, Predictors.

#### **Contributions of each author**

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