

Influence of Brain Gym Exercise on Children's Behavioural Problems with Autism Spectrum Disorder: A Review

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Introduction: Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterised by deficits in social communication, repetitive behaviours and restricted interests. Brain Gym, a series of physical exercises designed to improve neurological functioning, has been proposed as a complementary intervention for individuals with ASD.

Aim: The objective of this review is to synthesise evidence from studies investigating the impact of Brain Gym exercises on children's behavioural problems with ASD.

Materials and Methods: A comprehensive search of multiple databases, including PubMed, Scopus, and PEDro, was conducted for articles published between 2020 and 2024. Inclusion criteria consisted of Randomised Controlled Trials (RCTs), quasi-experimental studies, longitudinal studies and articles published in English language and focussed on Brain Gym interventions in individuals diagnosed ASD with behavioural problem.

Results: After conducting searches across multiple databases, 2 studies were selected from a total of 2,784 studies. An additional 5 studies were identified through citation tracking. In the end, 4 studies were included in the review: 2 were found via citations from the initially selected publications, and 2 were discovered through database searches, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

Conclusion: Among the studies, 2 articles indicate that Brain Gym activities can reduce children's behavioural issues, while the other 2 suggest no significant effects. However, the methodological flaws in the existing body of evidence limit the strength of these conclusions. Further high-quality research, incorporating longer durations, larger sample size and robust study designs, is needed to validate the efficacy of Brain Gym.

Keywords: Behaviour, Brain, Child, Communication.