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# Efficacy of HABIT-ILE Approach for Children with Spastic Cerebral Palsy: A Systematic Review

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## ABSTRACT

**Introduction:** Spastic cerebral palsy is the type of cerebral palsy characterized by spasticity or high muscle tone often resulting in stiff, jerky movements. HABIT-ILE is an intensive therapy that focuses on improving bimanual coordination of hand-arm and lower extremities.

**Aim:** The study aims to systematically review the efficacy of HABIT-ILE approach for children with spastic cerebral palsy and to evaluate the scientific evidence endorsing the benefits of this therapeutic approach.

**Materials and Methods:** This review includes articles encompassing children patients aged 6-12 years with cerebral palsy, including both males and females. Using keywords such as, cerebral palsy, spasticity, hand-arm coordination, physiotherapy and rehabilitation, a comprehensive analysis of research on the role of HABIT-ILE approach in spastic cerebral palsy was conducted. Electronic databases such as PubMed, Research Gate, Web of Science and Google Scholar were searched to identify the literature. A total of 121 articles from the last 10 years (2013-2025) were identified according to inclusion and exclusion criteria, out of which 12 articles were included in the study using the PRISMA guidelines. Data was obtained from the included articles and summarised in PICO format.

**Results:** Finally 12 articles were analysed for the literature review providing evidence supporting the use of HABIT-ILE approach to manage symptoms of cerebral palsy patients in combination with exercise therapy. It significantly improves posture, gross motor functions, walking endurance, mobility, physical independence, and functional capacity. No adverse effect was observed after the therapy.

**Conclusion:** HABIT-ILE approach helps improve the overall quality of life of patients with cerebral palsy. More randomised control trials are needed to provide good-quality evidence of the extent to which HABIT-ILE approach can improve the function and quality of life of children with cerebral palsy.

**Keywords:** Cerebral palsy, Spasticity, Hand-arm coordination, Physiotherapy

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