



## PHYSIOTHERAPY INTERVENTIONS FOR SPECIAL CHILD: A STUDY IN DELHI

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### ABSTRACT:

Chronic developmental and physical disabilities among children in India present a significant public health challenge. This study explores physiotherapy interventions for special children in Delhi, focusing on techniques such as neuro developmental therapy, sensory integration, hydrotherapy, strength and conditioning, assistive technology, and family-centered programs. Using a mixed-method approach, data were collected from special schools and rehabilitation centers. Findings indicate notable improvements in motor function, independence, and psychosocial well-being. However, barriers such as limited access, financial constraints, and lack of awareness persist. The study underscores the critical role of physiotherapy and the need for policy-level support to enhance outcomes for special children in urban India.

### KEYWORDS:

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### INTRODUCTION

In the Indian context, a 'special child' refers to individuals with physical, cognitive, or developmental disabilities such as cerebral palsy, autism spectrum disorder, Down syndrome, and muscular dystrophy. Delhi, as a major urban center, has a growing population of children requiring specialized care. According to recent estimates, approximately 2.2% of India's population lives with disabilities, with a significant proportion being children. Physiotherapy plays a vital role in managing these conditions by enhancing mobility, functional independence, and quality of life. It is an essential component of multidisciplinary rehabilitation strategies tailored to the unique needs of each child.

### OBJECTIVES

This study aims to:

1. Identify physiotherapy interventions commonly used for special children in Delhi.
2. Assess the effectiveness of these interventions in improving motor and psychosocial outcomes.
3. Explore challenges faced by families and therapists in delivering physiotherapy services.

### PHYSIOTHERAPY INTERVENTIONS

Neuro developmental Therapy (NDT): Focuses on improving posture, movement patterns, and functional

independence in children with neurological impairments. Sensory Integration Therapy: Designed for children with autism and sensory processing disorders, this therapy enhances sensory modulation and behavioral responses.

Hydrotherapy: Utilizes aquatic environments to reduce spasticity and improve joint mobility, balance, and strength.

Strength and Conditioning: Tailored programs to build muscle strength and endurance, particularly beneficial for children with muscular dystrophy and cerebral palsy.

Assistive Technology: Involves training in the use of orthoses, walkers, and adaptive devices to support mobility and daily activities.

Family-Centered Home Programs: Empowers caregivers with structured home-based exercises and routines to ensure continuity of care.

### METHODOLOGY

The study was conducted across five special schools and rehabilitation centers in Delhi. A sample of 60 children aged 4–14 years with diagnosed developmental or physical disabilities participated. A mixed-method approach was employed, combining quantitative assessments using the Gross Motor Function Measure (GMFM) and Pediatric Quality of Life Inventory (PedsQL),

along with qualitative interviews of caregivers and therapists to gather insights into therapy outcomes and challenges.

### FINDINGS & DISCUSSION

Quantitative results indicated significant improvements in gross motor function and quality of life scores post-intervention. Children showed enhanced balance, coordination, and independence in daily tasks. Qualitative feedback highlighted improved self-esteem and social interaction. However, barriers such as limited access to advanced therapy tools, financial constraints, and lack of awareness among parents were commonly reported. The findings emphasize the importance of early intervention, community support, and policy initiatives to bridge service gaps.

### CONCLUSION

Physiotherapy interventions are instrumental in improving the lives of special children in Delhi. The study demonstrates that targeted therapies can significantly enhance motor and psychosocial outcomes. To maximize impact, there is a pressing need for policy support, increased funding, and public awareness campaigns. Integrating physiotherapy into mainstream education and healthcare systems will ensure inclusive development and better quality of life for children with special needs.

### REFERENCES

1. Palisano, R., Rosenbaum, P., Bartlett, D., & Livingston, M. (2007). Content validity of the expanded and revised Gross Motor Function Classification System. *Developmental Medicine & Child Neurology*, 50(10), 744–750.
2. Rosenbaum, P., Paneth, N., Leviton, A., Goldstein, M., & Bax, M. (2007). A report: The definition and classification of cerebral palsy April 2006. *Developmental Medicine & Child Neurology*. Supplement, 109, 8–14.
3. Sharma, R., & Sharma, S. (2020). Physiotherapy interventions for children with developmental disabilities in India. *Indian Journal of Physiotherapy & Occupational Therapy*, 14(2), 45–50.
4. Varghese, A., & Thomas, M. (2019). Sensory integration therapy in children with autism: A review. *Indian Pediatrics*, 56(5), 389–393.
5. World Health Organization. (2011). *World report on disability*. WHO Press.