

# IMPACT OF HYDROTHERAPY ON CEREBRAL PALSY MANAGEMENT

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# BethanyKids

# **BACKGROUND**

Cerebral Palsy (CP) is a non-progressive neurological disorder caused by brain injury or abnormal brain development during the prenatal, perinatal, or postnatal period (Visicato et al., 2015). Visicato et al. (2015) goes on to say that CP is characterized by impairment in movement, posture, and muscle coordination and is also often accompanied by sensory, cognitive, and communication challenges. The complex nature of CP necessitates a multidisciplinary and creative approach. Hydrotherapy has gained recognition as a beneficial intervention, utilizing water's buoyancy, hydrostatic pressure, and warmth to enhance mobility, reduce spasticity, and improve quality of life (Dimitrijevic et al., 2012; Ballington, 2018).

#### PROBLEM STATEMENT

Cerebral palsy (CP) is a neurological disorder that affects movement, posture, and muscle coordination, often leading to spasticity and gross motor impairments (Novak et al., 2019). Hydrotherapy has been increasingly recognized as a beneficial intervention for children with CP, as it provides a low-gravity environment that facilitates movement, reduces muscle stiffness, and enhances functional mobility (Lai et al., 2020). However, despite its potential benefits, there is limited research on how caregivers perceive the impact of hydrotherapy on gross motor skills, spasticity, and overall quality of life in children with CP. Understanding caregivers' perspectives is essential for optimizing intervention strategies and improving patient outcomes. This study aims to address this gap by evaluating the perceived impact of hydrotherapy on these key functional and quality-of-life indicators.

# **PICO**

What is the impact of hydrotherapy on gross motor skills, spasticity, and overall quality of life in children with CP as perceived by their parents and caregivers?

#### **RESEARCH OBJECTIVES**

To explore caregivers' perceptions of hydrotherapy effectiveness in CP management.

To identify challenges and barriers caregivers face in accessing hydrotherapy.

To evaluate caregivers' observations of hydrotherapy impact on their child's motor functions and daily activities.

## **METHOD**

Study Design: Descriptive survey.

Population: Caregivers of children with CP undergoing hydrotherapy.

Sampling: Purposive sampling of children who have been in a hydrotherapy program for at least 3 months.

Data Collection: Structured questionnaires with closed and open-ended questions.



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#### **DATA ANALYSIS**

Descriptive statistics (percentages, means, standard deviations) will be used. Thematic analysis will categorize open-ended responses. Results will be presented in tables, graphs, and charts.

#### **RESEARCH DISSEMINATION**

Findings will be shared via academic presentations, conferences, and institutional reports. Results will be provided to caregivers and healthcare institutions to improve hydrotherapy programs. It will also be shared with collaborating OT organisations in Kenya, including KOTA and OTCoK, to integrate them into practice guidelines. Possible publication in rehabilitation journals.

#### **EXPECTED OUTCOMES**

Majority of caregivers will report improvements in their child's motor skills, flexibility, and coordination.

Challenges such as financial constraints and accessibility barriers will be identified.

#### CONCLUSION

Existing literature highlights the benefit of hydrotherapy for children with CP, particularly in improving gross motor functions, reducing spasticity and enhancing overall well-being (Lai et al., 2020; Retarekar et al., 2009). However, more research is needed, including caregivers perspectives, whom play a critical role in therapy adherence and daily management of CP.

## **SOURCE OF FUNDING**

Bethany Kids through POTOT will cover the expenses of the study, ensuring the successful completion.

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