

INPLASY PROTOCOL

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**Review Stage at time of this
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Conflicts of interest:
None declared.

EFFECTIVENESS OF HOME EXERCISES PROGRAM IN IMPROVING FUNCTION, ACTIVITY AND PARTICIPATION FOR CHILDREN WITH CEREBRAL PALSY

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Review question / Objective: What is the effectiveness of home exercise program in improving function, activity and participation for children with cerebral palsy?

Rationale: Children with cerebral palsy are faced with movement or postural disorder that limit activity and participation in activities of daily living. Cerebral palsy is a condition that result from a permanent injury to a developing brain. Improvement in functional, activities and participation can be obtained through goal oriented therapy exercise intervention. Exercise therapy to improve physical fitness, participation and quality of life of children with cerebral palsy is multifactorial. These exercises should be specific, measurable, achievable, relevant and time bound. Being a lifelong condition, exercise program for people with cerebral palsy becomes a lifelong activity and can be prescribed as home exercises. Home exercise programs are treatment strategies designed to help both the therapist and the family to work together and achieve a specific goal. Evidence to determination of the effectiveness of home exercise program in improving function, activity and participation of children with cerebral palsy is low, this study therefore seeks to analyze the effectiveness of home exercise program of subjects with cerebral palsy.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 September 2022 and was last updated on 13 September 2022 (registration number INPLASY202290053).

INTRODUCTION

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that limit activity and participation in activities of daily living. Cerebral palsy is a condition that result from a permanent injury to a developing brain. Improvement in functional, activities and participation can be obtained through goal oriented therapy exercise intervention. Exercise therapy to improve physical fitness, participation and quality of life of children with cerebral palsy is multifactorial. These exercises should be specific, measurable, achievable, relevant and time bound. Being a lifelong condition, exercise program for people with cerebral palsy becomes a lifelong activity and can be prescribed as home exercises. Home exercise programs are treatment strategies designed to help both the therapist and the family to work together and achieve a specific goal. Evidence to determination of the effectiveness of home exercise program in improving function, activity and participation of children with cerebral palsy is low, this study therefore seeks to analyze the effectiveness of home exercise program of subjects with cerebral palsy.

Condition being studied: Cerebral palsy.

METHODS

Search strategy: This study shall utilize the PICO framework for research to search different search engines which include Medline, Embase, CINAHL, Pubmed, PsycINFO, clinicaltrial.gov, web of science.

Participant or population: Children with cerebral palsy.

Intervention: Home exercise program.

Comparator: Usual therapy.

Study designs to be included: Systematic Review.

Eligibility criteria: Randomized control trial.

Information sources: This study shall utilize the PICO framework for research to search different search engines which include Medline, Embase, CINAHL, Pubmed, PsycINFO, clinicaltrial.gov, web of science.

Main outcome(s): Improvement in function.

Additional outcome(s): Activity and Participation.

Data management: Search result will be checked for duplication using reference manager, bibliography record will be exported from ref-work to Microsoft excel. Adequate care shall be made to ensure that the eligibility for inclusion and exclusion criteria are maintained.

Quality assessment / Risk of bias analysis: The quality of the study will be assessed using the PEDro quality appraisal tool for assessment of risk of bias. Quality shall be assessed in the following domains; Eligibility criteria were specified, random allocation, concealed allocation, baseline comparability, blinding of subjects, blinding of therapists, blinding of assessor, adequate follow up, intention to treat analysis, between group comparison and point estimates and variability.

Strategy of data synthesis: Prima flow will be used to guide data synthesis.

Subgroup analysis: No subgroup except if it becomes necessary.

Sensitivity analysis: To test sensitivity, we will conducted sub-group analysis for studies with moderate to low quality and compare with initial outcome of the synthesis.

Language restriction: English language.

Country(ies) involved: Nigeria.

Other relevant information: None.

Keywords: Cerebral palsy, Physical activities, Functional ability, Activity, Participation, Exercises, Home exercise program, Physical therapy, randomized controlled trial.

Dissemination plans: Dissemination plan shall be through publications, workshops and conference.

Contributions of each author:

Author 1 - Ngozika Roselyn Chimereze - Drafted study title, developed search strategies, searched the search engines, screening of search results and data extraction.

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Author 2 - Sam Chidi Ibeneme - Drafted manuscript, supervised the progress of the research.

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