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Efficacy of Universal Exercise Unit on Trunk Control in Children with Spastic Cerebral Palsy: Study Protocol

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ABSTRACT

Introduction: Universal Exercise Unit (UEU), a form of spastic cerebral palsy treatment, has potential in enhancing the strength of muscles, motor control, and postural alignment of patients. However, the scientific literature available on its efficacy, outcomes, and standardised protocols is scarce.

Need of the Study: The scarcity in literature is limiting its integration in clinical practice. Evidence to validate this potential and optimise therapeutic strategies in Spastic Diplegic Cerebral Palsy (SDCP).

Aim: To study the effectiveness of UEU on trunk control in SDCP children.

Materials and Methods: This randomised controlled trial will include 24 patients divided into two groups using computer generated randomisation. Physiotherapeutic intervention following stretching and strengthening wil be provided in Group A and followed with addition of UEU unit with the same regime in Group B. This study will include diagnosed Spastic Diplegic Cerebral Palsy (SDCP), both male and female ,GMFCS III and IV, aged 4 to 10 years, and Trunk Control Measurement Scale (TCMS) score of 9. Severe disability exceeding GMFCS level IV, history of seizures, hearing defi cits, any cardiac anomalies, usage of botulinum toxin A injection within three months prior will be included in the exclusion criteria.

Implications: Study will benefi t in management of trunk control and balance.

Keywords: Balance, Botulinum toxin A, Paediatric balance scale, Trunk control measurement scale

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