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شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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بالرسالة صفحات

لم ترد بالأصل



**Effect of Postural Control Exercises in Spider Cage on
Standing Pattern in Spastic Diplegic Children**

A Thesis

Submitted in Partial Fulfillment for the Requirements of Master Degree
in Physical Therapy

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

”سبحانك لا علم لنا الا ما علمتنا انك
انت العليم الحكيم“

صدق الله العظيم

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Effect of Postural Control Exercises in Spider Cage on Standing Pattern in Spastic Diplegic Children. *Samah Attia EL-Shiemy*; Supervisors: *Prof. Dr. Kamal EL-Sayed Shoukry Prof. Dr. Mohamed Tawfik Mahmoud; Dr. Fatma Abd EL Fattah Hegazy*, Cairo University, Faculty of Physical Therapy, Departement of Growth and Developmental Disorders in Children and Its Surgery.

Abstract

The purpose of this study was to investigate the effect of postural control exercises in spider cage on standing pattern in spastic diplegic cerebral palsied children. Forty spastic diplegic cerebral palsied children ranged in age from 3 to 5 years participated in this study. The study sample were divided randomly into two groups of equal number (study and control groups). The study group received postural control exercises inside the spider cage in addition to the selective treatment program. The control group was treated by the same postural control exercises outside the spider cage in addition to the same selective treatment program given to the study group. Evaluation was carried out for each child of both study and control groups before, after two and four months of treatment. It included measuring the scores of standing dimension tasks by using Gross Motor Function Measure Scale (GMFM). The results of this study revealed significant improvement in standing pattern for both study and control groups after the treatment. Also, significant improvement was noticed in standing pattern for the study group when compared with control group after the treatment period ($p < 0.05$). This significant difference may be attributed to the effect of postural control exercises in spider cage on improving standing pattern.

Key words: Cerebral palsy- Diplegia- Spider cage- Postural control- GMFM.

Dedication

To

**My Mother, My Father,
My Sister and My Brother**

List of Abbreviations

Abbreviation	Name
AIMS	: Alberta infant motor scale
ANOVA	: Analysis of Variance
BMD	: Bone mineral density
BOS	: Base of Support
Cm	: Centimeters
CNS	: Central Nervous System
COG	: Center of Gravity
COM	: Center of Mass
COP	: Center of Pressure
CP	: Cerebral Palsy
EMG	: Electromyography.
FES	: Functional electrical stimulation
Fig.	: Figure
GMFM	: Gross Motor Function Measure
IQ	: Intelligence Quotient
KN	: Kneeling
Lt.	: Left
MAI	: Movement assessment of infant
NDT	: Neurodevelopmental therapy
ROM	: Range of Motion
Rt.	: Right
SCI	: Spinal Cord Injuries
Sec.	: Second
STD	: Standing
UEU	: Universal Exercise Unit
UMNL	: Upper Motor Neuron Lesion

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