### Physical Therapy Department for Growth and Development Disorder in children and Its Surgery

### Doctoral Degree 2002

Author	:	Hadya Mourice Ibrahim.
Title	:	Effect of vibratory stimulation on crouch gait spastic
		diplegic children.
Dept.	:	Physical Therapy Department for Growth and
		Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abdel Aziem El Talawy.
	2.	Hala Ibrahim Ahmed Kassem.
Degree	:	Doctoral.
Year	:	2002.
Abstract	:	

The aim of study was to evaluated the effect of high and low frequency vibratory stimulation and a specially designed exercise program on crouch gait in spastic diplegic cerebral palsied children. sixty diplegic children (35 males and 25 females), ranging in age from three to years old participated in this study . the study sample was classified randomly into two study groups and one control group . the first study group received a program of high frequency vibratory stimulation in addition to especially designed exercise program given to the first group , while the control group received the specially designed exercise program only . the angles of hip , knee and ankle joints and temporal - distance parameters of gait were evaluated before and after three months of application of different treatment programs . the results of the study revealed highly significant improvement in all measuring variables of the first and second study groups (except the step width ) , while no significant improvement was observed in the results of the control group . Improvement in the two study groups may be attributed to the effect of vibratory stimulation program on improving muscle function.

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Key words	1.	CP.
	2.	vibratory stimulation.
THE	3.	crouch gait.
	4.	gait analysis.
	5.	spastic diplegic children.
	6.	children.
Arabic Title Page	:	تأثير الاهتزاز الكهربي على المشية الجاثمة في الأطفال ذوى الشلل المخي
		التشنجي.
Library register number	:	924-925.

Author	:	Manal Salah El-Dien Abdel-Wahab.
Title	:	Effect of augmented feed - back on changing visual - perceptual and fine - motor skills in diplegic cerebral - palsied children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abdel - Azim El-Talaw.
	2.	Kamal El - Sayed Shoukery.
	3.	Nadia Adib Bamieh.
Degree	:	Doctoral.
Year	:	2002.
Abstract	:	

The purpose of this study was to investigate the effect of using advanced technology in a form of computer set and a designed computer program directed towards improving fine motor abilities through stimulation of visual-perceptual skills as well as compares this new trend of treatment with the traditional one used form improving fine-motor abilities. Visual motor integration (VMI) test and denier developmental test (DDT) were used to assess visual-perceptual and fine-motor abilities respectively. forty young patients with spastic diplegic form of cerebral palsy (CP)participated in this study in addition to twenty normal children ranged in age from four to eight years to be used as a standard measures. spastic patients were randomly divided into two groups of equal number. the first group (group I)treated by using a computer set and a designed computer program with muse movements in different directions. the second group (groupII)treated by a traditional line of treatment used for improving fine-motor abilities. all patients in both groups received their ordinary physical therapy treatment program used for improving their physical activities, the results revealed that using a designed computer program in a form of attractive games had the ability to drag the child's attention and concentration for longer period of time leading to improvement of visual-perceptual skills and consequently improvement of fine-motor abilities more in group I than in group II was recorded, it is recommended that using of advanced technology in a form of attractive playing games as: As a source of augmented feedback might be used in conjunction with the traditional line of treatment in the habilitation of upper extremities of children with spastic diplegic cerebral palsy.

Key words	1.	augmented feedback.
FILISIC	2.	visual-motor interaction.
I TI	3.	fine-motor skills.
	4.	cerebral palsy.
THE	5.	Diplegia.
	6.	children.
	7.	cerebral - palsied children.
Arabic Title Page	:	تاثير التغذية الاسترجاعية المزادة على تحسين كلا من مهارات الادراك البصرى
		و المهارات الحركية الدقيقة في حالات الاطفال المصابين بالشلل المخي
		التقلصي
Library register number	•	872-873.

Author	:	Nagui Sobhi Nassif.
Title	:	An investigation on the static and dynamic balance in patients with knee osteoarthritis before and after a specific training program.
Dept.	:	Physical Therapy Department for Growth and
		Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira Mohamed El-Tohamy.
	2.	Ahmed Hassan Hussein.
	3.	Mohamed Mohamed Ibrahim Hanafy.
Degree	:	Doctoral.
Year	:	2002.
Abstract	:	

The purpose of this study was to investigate the dynamic and static balance ability of patients suffering from knee osteoarthritis and document the effect of specific balance training program on these balance variables . forty subjects with moderate degree of unilateral and bilateral knee osteoarthritis participated in this clinical procedure . they were divided equally between two groups , group I were the patients suffering from unilateral knee osteoarthritis while group II were the patients suffering from bilateral knee osteoarthritis a matched control group III of twenty normal subjects was selected for comparative data analysis and reference the patients were tested using a functional scale , isokinetic dynamometer and balance stability system three sessions per week for four weeks were given for each patient on the biodex stability system the results showed improvements which was reflected on the significant difference in the functional scale , the peak torque , the static and dynamic balance in group I and II compared to group III , which concluded the importance of using a stability balance system in the rehabilitation program of patients suffering from knee joint osteoarthritis.

Key words	1.	Biomechanics.
	2.	Static.
DHVCIC	3.	Dynamic.
LILISIC	4.	Balance.
I TI	5.	Isokinetic.
	6.	Knee.
THE	7.	osteoarthritis.
Arabic Title Page		بحث عن التوازن الاستاتيكي والديناميكي لمرضى التهاب الركبة العظمي المفصلي قبل وبعد مزاولة برنامج تدريبي خاص.
		المفصلى قبل وبعد مزاولة برنامج تدريبي خاص.
Library register number	:	886-887.

Author	:	Sabry Salem Abd El-Rahman.
Title	:	Reciprocal electrical stimulation in spasticity control of
		hemiparetic cerebral palsied children.
Dept.	:	Physical Therapy Department for Growth and
		Developmental Disorder in Children and its Surgery.
Supervisors	1.	Emam Hassan El-Negamy.
	2.	Hoda A.El-Talawy.
Degree	:	Doctoral.
Year	:	2002.
Abstract	:	

The purpose of this study was to evaluate the effect of reciprocal electrical stimulation of opposing groups of muscles alternatively on spasticity control and improvement gait pattern in spastic hemiparetic cerebral palsied children. the study was conducted on thirty spastic hemiparetic children, ranging in age between 4 and 6 years, they were divided randomly into 2 groups of equal number (control and study groups)each one containing 15 patients the control group was subjected to traditional physical therapy program in addition to faradic stimulation on the antispastic muscles (anterior tibial muscle group), while study group was subjected to reciprocal electrical stimulation on opposite groups of muscle alternatively, anterior tibial muscle group was first stimulated then the calf muscles was stimulated alternatively in addition to traditional physical therapy program. Hoffman reflex / myogenic response ratio was recorded and gait parameters, including step length for both the affected and non affected limbs, stride length, step width and foot angle for both the affected and nonaffected limbs, were determined via the use of foot print methods. both groups were evaluated before and after treatment program which was conducted for 3 months at 3 session per week bases . in comparing the changes recorded in both groups, the results showed significant difference in H/M ratio and significant difference in measured gait variables between the study and control groups in favor of the study group. from the obtained results it can be concluded that reciprocal: electrical stimulation could be used in addition to the traditional methods of treatment to improve gait pattern and increasing motor control of the muscles of spastic hemiparetic cerebral palsied.

Key words	1.	Cerebral palsy.
1 71	2.	Spasticity.
	3.	reciprocal electrical stimulation.
THE	4.	children.
	5.	hemiparetic cerebral palsied.
Arabic Title Page	:	استخدام التنبية الكهربائي العصبي للعضلات المتقابلة بالتناوب لعلاج حالات
		الشلل المخي النصفي في الاطفال للتحكم في زيادة النغمة العضلية.
Library register number	:	922-923.