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

Master Degree
2006

Author	**:**	**Ahmed Maher Mohammed Gabr.**
Title	**:**	**Effect of Faradic Stimulation with Modified Denis Brown Splint in Treatment of Clubfoot.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Mohammed Tawfik.**
	2.	**Khaled Ahmed Mamdouh.**
	3.	**Ahmed mahmoud.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	
Purposes: to determine the effect of faradic stimulation with modified Denis Brown splint in treatment of clubfoot. Study Design: pre and post control group design. Materials and methods: twenty subjects with club feet from both sexes were participated in this study. They were divided into two groups; (A) included 10 supjects treated by faradic stimulation and modified Denis Brown splint (B) included 10 subjects treated with the traditional method by serial plaster casts Results: The study revealed that there were no significant differences between two groups and both of them gave good results in correction of the deformity Conclusion: we can use faradic stimulation with modified Denis Brown splint in treatment of club foot.		
Key words	**1.**	**Faradic Stimulation.**
	2.	**Modified Denis Brown Splint.**
	3.	**Clubfoot.**
Arabic Title Page	**:**	**تاثير التنبيه الفارادي مع جبيره دينيس براون المعدله في علاج القدم القفداء.**
Library register number	**:**	**1371-1372.**

Author	**:**	**Amira EI-Sayed Mohamed EI- Bagalaty.**
Title	**:**	**Cold Application Versus Topical Anesthesia Prior to Stretching of Achilles Tendon in Hemiparetic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Elham EI Sayed Salem.**
	2.	**Lobna Abd Elgawad Mansour.**
	3.	**Khaled Ahmed Olama.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to evaluate and compare the effect of cold application and topical anaesthesia before stretching of Achilles tendon in hemiparetic cerebral palsied children. Twenty hemiaretic children (11 girls, 9 boys) aged between 3 and 5 years old participated in this study. They were divided randomly into two study groups of equal numbers, 10 patients each. Group I, received cold application while group II received topical anaesthesia. Both par1icipating groups received stretching of tendo Achilles, strengthening of anterior tibial (AT) group of muscles in addition to the selected physical therapy program. Evaluation was carried out for each child individually before and after 3 months of application of different treatment programs. It included measurement of ankle excursion and AT muscle strength by using of electro-goineometer and electronic muscle tester respectively. The results of this study revealed a highly significant improvement in both study groups, but in favor in group II, while there was no significant difference between both groups in AT, muscle strength. From the obtained results, it could be concluded that, improvement of group II was attributed to the great effect of topical anaesthesia as an adjunct to the traditional line of treatment and stretching in hemiparetic cerebral palsied children.

Key words	**1.**	**cerebral palsy.**
	2.	**Hemiparesis.**
	3.	**cold application.**
	4.	**topical anesthesia.**
	5.	**ankle excursion.**
	6.	**AT muscle strength.**
	7.	**Children.**
Arabic Title Page	**:**	**دراسة مقارنة العلاج بالثلج وبالتخدير السطحي الموضعي قبل إطالة عضلة السمانة في علاج حالات الفالج الشقي الطولي التشنجي لدى الأطفال.**
Library register number	**:**	**1367-1368.**

Author	**:**	**Hatem Hassan Allam.**
Title	**:**	**Effect of Treadmill Training on Gait Pattern in Down's Syndrome Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Emam Hassan EL-Negmy.**
	2.	**Amira ElTohamy.**
	3.	**Laila Abd EI – Motaleb.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to investigate the effect of treadmill training on some selected kinematic gait parameters in children with Down's syndrome. Thirty Down's syndrome children, their age ranged from 7 to 10 years, participated in this study. The sample divided randomly into two groups of equal number, control and study groups. The control group, received conventional physiotherapy program including balance and it training programs. The study group received the same previous physical therapy program in addition to a specialized treadmill training program. Evaluation was carried out for both groups, before and after the application of the treatment program by using the 3-D motion analysis system. The results of this study revealed that there was a significant improvement in the selected kinematic gait parameters in both groups after the treatment. Also, highly significant difference was noticed in the gait pattern in favor of the study group when compared with the control group.

Key words	**1.**	**Down's syndrome.**
	2.	**Gait abnormalities.**
	3.	**Kinematic analysis.**
	4.	**Treadmill.**
	5.	**Children.**
Arabic Title Page	**:**	**تأثير التدريب باستخدام سير المشي المتحرك على طريقة المشي في الأطفال المصابين بمتلازمة داون.**
Library register number	**:**	**1321-1322.**

Author	**:**	**Mamdouh Gabr Haggag.**
Title	**:**	**Effect of Abduction Hip Splint on Standing Posture Pattern in Spastic Diplegic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Emam Hassan El-Negamy.**
	2.	**Faten Hassan Abd El-Azim.**
	3.	**Lobna Mansour.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to evaluate the effect of abduction hip splint in combination with traditional physical therapy program on standing posture pattern in spastic diplegic cerebral palsied children. Twenty spastic diplegic children with ten months of age according to Denver developmental screening test participated in this study. They were classified randomly into 2 groups of equal numbers, control and study groups. The formetric instrument system was used to evaluate the spinal geometry in the form of trunk imbalance, pelvic tilt, pelvic torsion, surface rotation, and lateral deviation for both groups before and after three months of application of the treatment programs. The control group received a selected therapeutic exercise program. The study group received the same therapeutic exercise program given to the control group while wearing abduction hip splint. The pre-treatment results revealed non significant difference in all measuring variables between the two groups. With comparing the pre and post-treatment results for the control group, it revealed significant improvement in all measuring variables. Also, with comparing the pre and post-treatment results for the study group, it revealed significant improvement in all measuring variables. In addition, the results revealed significant difference in all measuring variables when comparing the post treatment results of the two groups in favor of the study group.

Key words	**1.**	**Cerebral palsy.**
	2.	**Diplegia.**
	3.	**standing posture.**
	4.	**Children.**
	5.	**abduction hip splint.**
Arabic Title Page	**:**	**تأثير الجبيرة الفاصلة لمفصل الفخذ على أنموذج الوقوف فى حالات الأطفال المصابين بالشلل المخى التصلبى المزدوج.**
Library register number	**:**	**1385-1386.**

Author	**:**	**Marwa Mostafa Ibrahim Ismael.**
Title	**:**	**Geometrical Analysis of The Spine for Brachial Plexus Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohamed El-Tohamy.**
	2.	**Manal Salah El-Din Abdl-Wahab.**
	3.	**Hekmat Mohamed El-Sayed El-Ghdban.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to evaluate the spinal geometry of brachial plexus palsied children specially those of upper trunk lesion (Erb's type) and compare results with those of normal children to identify the differences between the two groups. Fifteen Erb's palsied children and fifteen normal children participated in this study. All children ranged in age from three to six years. A formetric (rastersterography) system was used for assessing the spinal geometry of both groups. The data of Erb's palsied children was compared with that of normal group through un-paired t-test. The results of this study showed highly significant differences in the spinal parameters including trunk imbalance, surface rotation (rms), surface rotation (max), lateral deviation (rms), lateral deviation (max), kyphotic angle ICT-ITL (max) and kyphotic angle VP-T12 between the two groups except the parameter of kyphotic angle VP-ITL.

Key words	**1.**	**Erb's Palsy.**
	2.	**Spinal geometry.**
	3.	**Rastersterography.**
	4.	**Children.**
Arabic Title Page	**:**	**التحليل الهندسي للعمود الفقري لدى الأطفال المصابين بشلل ملخ الولادة.**
Library register number	**:**	**1395-1396.**

Author	**:**	**Nanees Esaam Mohamed.**
Title	**:**	**Effect of Bobath Axillary Roll in Posture Adjustment of Spastic Hemiplegic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohamed El-Tohamy.**
	2.	**Bothina M. Abd El-Aziz El-Naggar,**
	3.	**Heba Mohamed Youssr M. El-Basatiny.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to evaluate the effect of Bobath axillary roll in posture adjustment of spastic hemiplegic cerebral palsied children. The study was conducted on thirty spastic hemiplegic children ranging in age from 4 to 6 years from both sexes. They were classified randomly into two groups of equal numbers control group (A) and study group (B). Both groups received physical therapy program, in addition a specially designed posture correction exercise program, 3 times/week for 3 months but the study group (B) conducted them while wearing Bobath axillary roll. In all patients the posture was evaluated before and after the suggested treatment program by Formetric instrument system. The post treatment trunk imbalance, lateral deviation, pelvic tilt, kyphotic angle and lordotic angle results showed significant improvement of study group (B) which confirm the important of using Bobath axillary roll in rehabilitation program of spastic hemiplegic children.

Key words	**1.**	**Cerebral palsy.**
	2.	**Hemiplegia.**
	3.	**Bobath axillary roll.**
	4.	**Children.**
	5.	**Posture.**
	6.	**formetric.**
Arabic Title Page	**:**	**تأثيـر طية بوباث الإبطية علي تعديل القوام في أطفال الشلل المخي المصابين بالشلل النصفي التصلبي.**
Library register number	**:**	**1401-1402.**

Author	**:**	**Radwa S. abdel Rahman.**
Title	**:**	**Effect of Computer Biofeedback Program on Hand 'Performance in Spastic Hemiparetic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Hoda A. El Talawy.**
	2.	**khaled A. Mamdouh.**
	3.	**Nadia A. Bamia.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was two fold research. The first part was to investigate the effect of using advanced technology in a form of computer biofeedback program -using joystick movementsdirected towards improving fine motor abilities and hand grip force through stimulation of visual-motor integration skills, however the second part was to compare this new trends of treatment with the traditional one used for ilnproving fine-motor abilities and hand grip force for spastic helniparetic cerebral palsied children. Peabody Developmental motor scale, second edition, (PDMS-2) and hand grip . dynamometer were used to assess Visual Motor Integration (VMI) and hand grip force respectively. Thirty young patients with spastic hemiplegic form of cerebral palsy (CP) participated in this study ranging in age from five to seven years. The patients were randomly divided into two groups of equal number. The first group (control group) treated by the traditional treatment used for improving fine-motor abilities, the second group (study group) treated by using a computer biofeedback program with joystick movements in different directions. Patients in both groups received their traditional physical therapy treatment program used for improving their physical activities. The results revealed that the use of a computer feedback program in form of attractive galmes drew the child's attention and maintained his/her concentration for longer periods of time leading to improvement of visual-integrative skills; consequently there was better improvement of fine-motor abilities in the study group than the control group. It was recommended to use advanced technology in a form of attractive games, as a source of augmented feedback in conjunction with the traditional treatment in the habilitation of upper extremities of children with spastic hemiparetic cerebral palsy.

Key words	**1.**	**Computer Biofeedback.**
	2.	**Visual-motor integeration.**
	3.	**Finemotor skills**
	4.	**Children.**
	5.	**Hemiplegia.**
	6.	**Cerebral palsy.**
Arabic Title Page	**:**	**تأثير برنامج التغذية الحيوية الرجعية بالكمبيوتر علي أداء اليد عند أطفال الشلل المخى المصابين بالشلل النصفى التصلبى.**
Library register number	**:**	**1319-1320.**

Author	**:**	**Rania Mohamed Mahmoud Bedair.**
Title	**:**	**Effect of dynamic versus static ankle foot orthosis on lower leg spacticity control in dipelgic cerebral palsied children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Hoda Abd El-Aziem El-Talawy.**
	2.	**Elham El-Said Salem.**
	3.	**Ann Ali Abd El-Kader.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	
Contractures are among the most common secondary impairments associated with cerebral palsy (CP) particularly for subjects with spastic type. So this study was done to detect the effect of dynamic versus static ankle foot orthoses (AFO) in decreasing calf muscle contracture and controlling spacticity in diplegic CP. 32 spastic diplegic children ranged in age from 2-3 years old participated in this study. They were classified randomly into two groups of equal numbers (group A and group B). Group A received the traditional physical therapy program while wearing static AFO for 8 hours daily they also wore it as a night splint. Group B received the same physical therapy program while wearing dynamic AFO for 8 hours daily and static AFO as a night splint. H/M ratio calculation and passive range of motion (ROM) of ankle dorsiflexion were assessed before and after 3 months of application of orthoses and training of physical therapy program. The results of this study revealed high significant improvement in the measured variables (ROM and H/M ratio) of groups A and B (P < 0.01) when comparing pre and post treatment results, while non significant improvement was revealed when comparing the post treatment results of both groups A and B. From the obtained results of this study , it could be concluded that both static and dynamic AFO are beneficial for subjects with spastic diplegic CP, while there is no difference was found between using either of them on calf muscle contracture and spasticity control.		
Key words	**1.**	**cerebral palsy.**
	2.	**Diplegia.**
	3.	**Ankle foot orthoses.**
	4.	**Children.**
	5.	**Range of motion.**
	6.	**H/M ratio.**
Arabic Title Page	**:**	**تأثير جبيرة الكاحل والقدم الثابتة مقابل المتحركة على التحكم في النغم العضلي لدى الأطفال المصابين بالشلل الرباعي التشنجي.**
Library register number	**:**	**1383-1384.**

Author	**:**	**Reham Abd El Monem Abd El Monem Abou El Khier.**
Title	**:**	**Effect of Selective Physiotherapy Program on Back Geometry and Spinal Mobility in Spastic Diplegic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Kamal El Sayed Shokry.**
	2.	**Lobna Abd El Gawad Mansour.**
	3.	**Hebatalla Mohammed Kamal.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to measure the effect of the selected physiotherapy program on back geometry and spinal mobility in spastic diplegic cerebral palsied children. Trunk imbalance and inclination, pelvic tilt and torsion, lateral deviation and surface rotation in addition to thoracic and lumbar flexion and extension intersegmental range of motion were measured. Twenty spastic diplegic cerebral palsied children aged from four to six years participated in this study. Formetric II and spinal mouse instruments were used to measure the effect of the selective physiotherapy program. All the children were evaluated before and after treatment. The results of the study showed that spastic diplegic cerebral palsied children have functional scoliosis which resulted from pelvic tilt and torsion. After applying selective physiotherapy program for three months all the measured variables significantly improved. Showing that physiotherapy program can improve the biomechanical relation between spine, pelvis and lower limbs during standing and can improve the quality of standing posture.

Key words	**1.**	**back geometry.**
	2.	**spinal mobility.**
	3.	**standing posture.**
	4.	**Children.**
	5.	**cerebral palsy.**
	6.	**diplegia.**
Arabic Title Page	**:**	**تأثير برنامج علاج طبيعي مختار علي جوميتريه الظهر ومدي حركة العمود الفقري في الأطفال المصابين بالشلل الرباعي التقلصي.**
Library register number	**:**	**1393-1394.**

Author	**:**	**Tamer Mohamed El-Saeed.**
Title	**:**	**Effect of Dynamic Hand Splint on Hand Function in Spastic Hemiparetic Cerebral Palsied Children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Kamal El-Sayed Shoukry.**
	2.	**Hala Ibrahim Ahmed Kassem.**
	3.	**Omnia Gamal El-Din Afifi.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to determine the effect of dynamic hand splint on hand function in spastic hemiparetic cerebral palsied children. Thirty hemiparetic children ranged in age from three to six years participated in this study. They were classified randomly into two groups of equal numbers (control and study). A hand held dynamometer for measuring hand grip strength of the affected upper limb and a Peabody developmental motor scale were used for both groups, before and after three months of application of the treatment programs. The control group received a specially designed rehabilitation program while the study group received the same program given to the control group but through using dynamic hand splint. The pre treatment results revealed no significant differences between the two groups. Comparing the pre and post-treatment mean values of the measuring variables of the two groups revealed significant improvement. However, comparing the post treatment results of the two groups revealed highly significant improvement in favor of the study group.

Key words	**1.**	**Cerebral Palsy.**
	2.	**Hemiparesis.**
	3.	**Hand Function.**
	4.	**Children.**
	5.	**Orthoses.**
Arabic Title Page	**:**	**تأثير جبيرة اليد الديناميكية على وظائف اليد لدى أطفال الشلل المخي المصابين بالخدل النصفي الطولي التشنجي.**
Library register number	**:**	**1377-1378.**

Author	**:**	**Walaa El Sayed Mohamed Mostafa Morsy.**
Title	**:**	**Effect of point percussion therapy exercises techniques on trunk control in spastic diplegic cerebral palsied children.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Kamal EL Sayed Shoukry.**
	2.	**Gehan H. EL- Meniawy.**
Degree	**:**	**Master.**
Year	**:**	**2006.**
Abstract	**:**	

The purpose of this study was to evaluate the trunk control in spastic diplegic children following the participation in point percussion therapy exercise techniques in addition to the designed therapeutic exercise program. Thirty spastic diplegic children, ranged in age from 1 to 3 years old participated in this study .They were classified randomly into two groups of equal number, (control and study). The control group received the selected therapeutic exercise program .The study group received point percussion therapy exercises techniques in addition to the same exercise program .Rolling and sitting dimensions were assessed using Gross Motor Function Measure (GMFM) , before and after three months of the application of the treatment program .The results of this study revealed statistically highly significant improvement in almost of the measuring variables of the study and control groups ($p < 0.01$) when comparing pre and post treatment results of the study and control groups ($p < 0.01$). From the obtained results of this study , it could be concluded that , point percussion therapy exercises techniques had a beneficial effects to be as a modality in addition to traditional techniques used to improve trunk control in spastic diplegic cerebral palsied children.

Key words	**1.**	**trunk control.**
	2.	**cerebral palsy.**
	3.	**spastic diplegic.**
	4.	**Children.**
	5.	**point percussion therapy.**
	6.	**Exercises techniques.**
Arabic Title Page	**:**	**تأثير العلاج باستخدام تمرينات الطرق اليدوى النقرى على التحكم فى الجذع عند الأطفال المصابين بالشلل المخى التقلصى المزدوج.**
Library register number	**:**	**1379-1380.**