

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

Master Degree
2004

Author	:	Ehab Anwar Mohamed.
Title	:	Correlative analysis between degree of spasticity and angle of wrist joint during grasping in spastic cerebral palsied children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abd El-Azien El-Talawy.
	2.	Emam Hassan El-Negamy.
	3.	Fatma Abd El- Fattah Hegazy.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The purpose of this study was to analyze the relation between angle of wrist joint during grasping and degree of spasticity in spastic hemiplegic children. Fifty spastic hemiplegic children ranged in age from 3 to 6 years old participated in this study. They were classified according to modified ash worth scale into 5 groups, twenty normal children were also participated to be as a baseline for normative data. A dynamometer was used to measure grip strength and an electronic goniometer to measure angle of wrist joint. all groups were tested using standardized positioning and instruction to exert maximal grip strength , at peak value of grip strength , the angle of wrist joint is measured . Angle of wrist joint showed gradual decline in extension from normal group till group 2, then dramatically ascending in flexion in other groups , grip strength showed great decline in its value from normal to severe spastic cases . A significant correlation was seen between angle of wrist joint and spasticity and between wrist angles and grip strength directly during extension and reversely during flexion. Another pilot experimental study was done by using special designed wrist plights at 015 ° and 30° extension to investigate relation between wrist angle and grip strength . No significant correlation between 15 30 degrees in normal group was found while significant correlation was found in spastic group and grip strength at 30 showed the greatest value.</p>		
Key words	1.	Grasping.
	2.	Cerebral Palsy.
	3.	Hemiplegic.
	4.	Grip Strength.
	5.	Wrist Joint.
	6.	Spasticity.
	7.	children.
Arabic Title Page	:	تحليل ارتباطي بين درجة التقلص العضلي وزاوية حركة الرسغ اثناء المسك عند الأطفال المصابين بالشلل الدماغي النصفى القلصى.
Library register number	:	1087-1088.

**ELECTRONIC GUIDE TO THESES APPROVED BY
PHYSICAL THERAPY DEPARTMENT FOR GROWTH AND
DEVELOPMENT DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Magda Abd El Fattah Mohamed Moussa.
Title	:	Effect of underwater exercises on dynamic trunk control in spastic diplegic cerebral palsy children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El - Sayed Shoukry.
	2.	Mohamed Tawfik Mahmoud.
	3.	Elham El-Sayed Salem.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The aim the study was to investigate the effect of underwater exercises on dynamic trunk control in spastic diplegic children. thirty diplegic cerebral palsied children ranging in age from three to six years were involved in the study . the study was divided randomly into two groups (study and control)of equal number . the study group treated by specially designed underwater exercises program . while the control group treated by traditional physical therapy program . the dynamic postural control of the trunk was evaluated by measuring the functional sitting ability of each child at 5 different levels using 5 blocks of the same size and height . the blocks were placed as one column in from of the child for evaluating the forward flexion and extension movements . then , 4 blocks were placed at each side (right and left)for evaluating side bending . the video-camera was used to record each movement particularly and at each level separately by removing one block sifter record each level . then the distance (cm), time (sec)and speed (cm/sec)were analyzed and measured by auto-CAD for the particular movement evaluation was repeated after the suggested period of treatment (four months)for both groups. from the obtained results in this study , it can be concluded underwater exercises may represent a beneficial therapeutic modality to improve dynamic trunk control in spastic diplegic cerebral palsy children.</p>		
Key words	1.	cerebral palsy.
	2.	underwater exercises.
	3.	dynamic trunk control.
	4.	spastic diplegic.
	5.	children.
Arabic Title Page	:	تأثير التمرينات تحت الماء على التحكم الديناميكي للجذع في الاطفال المصابين بالشلل الدماغي التيبسي الرباعي.
Library register number	:	1034-1035.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Manal Radwan Salim.
Title	:	Description of fetal and neonatal upper limb movement patterns.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal Elsayed Shoukry.
	2.	Sherif Derbala Ali Hussein.
	3.	Hanaa Mostafa El-Karakasy.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>This study describes and establishes base line data of early movement patterns of the upper limb in both fetal and neonatal periods . The purpose of this study was to clarify developmental sequences of fetal and neonatal movement patterns. to presents a new technique for both fetal and neonate movement assessments. this study was conducted with the cross sectional design comparing upper limb movement patterns in both fetal and neonatal periods. studying a normal sample group of fetuses representing the three stage of pregnancy as well as neonates in the first two days postnatal and first month. fetuses were scanned in their mothers' wombs via real-time three-dimensional ultrasound scanner (four-dimensiona; ultrasound), while neonates were videotaped. kinematical analysis was done to shoulder elbow instantaneous angular changes, movements units duration amplitude and rate per minute parameters. the results of this study showed that fetal and neonatal movements are more temporally organized than spatially organized. significant differences were presented between fetuses and both neonatal groups in upper limb movement pattern expressions.</p>		
Key words	1.	Fetal movement.
	2.	movement patterns.
	3.	neonate general movement.
	4.	Development.
	5.	children.
Arabic Title Page	:	وصف أنموذج حركة الطرف العلوي في الاجنة والاطفال حديثي الولادة.
Library register number	:	1121-1122.

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Author	:	Mostafa Mohamed Asfour.
Title	:	Effect of tonic vibratory reflex on hand function in spastic hemiplegic palsied children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abd El Azim El Talawy.
	2.	Hekmat El Ghadban.
	3.	Hala Ibrahim Ahmed Kassem.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The aim of this study was to investigate the effect of TVR on hand function in spastic hemiplegic cerebral palsied children . thirty spastic hemiplegic cerebral palsied children (16 males and 14 females), ranging in age from four to seven years participated in this study . fifteen were right sided and fifteen were left sided . the degree of spasticity ranged from 1 to 2 grades according to the modified ash worth scale . all patients had been selected from Eltalba hospital-Abu Elrish and from the out-patients clinic of the specialized pediatric hospital-Cairo university . the subjects were divided randomly into two groups of equal number (control and study). the control group received a specially designed program ; while the study group received the same exercise program as the control group in addition to high frequency vibratory stimulation . evaluation of handgrip strength and arrangement of cubes in five minutes was determined for each group before and after three months of treatment . the results revealed significant improvement in the measuring variables for both groups which was highly significant in the study group . improvement denoted in the study group may be attributed to the combined effects of TVR and designed exercise program , which functionally improve hand function.</p>		
Key words	1.	Hemiplegic cerebral palsied.
	2.	Tonic vibratory reflex.
	3.	Hand function.
	4.	spastic hemiplegic.
	5.	children.
Arabic Title Page	:	تأثير الانعكاس الإهتزازي النغمي على وظيفة اليد في أطفال الشلل المخي التشنجي "الفالج".
Library register number	:	1113-1114.

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Author	:	Naglaa Ahmed Zaky Aly.
Title	:	The effect of contoured foam seat on reaching from sitting 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.	Hoda Abdel Aziem El Talawy.
	3.	Khaled Ahmed Olama.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The aim of this study was to evaluate the effect of contoured foam seat on reaching from sitting in spastic diplegic cerebral palsied children. Thirty spastic diplegic children (15 males and 15 females) ranging in age from two to five years old participated in this study . The study sample was classified randomly into one study group and one control group . the study group received a specially designed program while seated on the contoured foam seat , while the control group received the same program while seated on a high chair . both groups received the traditional exercise program . the angles and velocities of shoulder and elbow joints were evaluated before and after the treatment programs . the results of the study revealed statistically significant improvement in all measuring variables ($p < 0.0001$) pre and post treatment in both control and study groups with higher percentage of improvement of the study group . from the obtained results of this study , it can be concluded that improvement in the study group may be attributed to the effect of contoured foam seat on improving reaching ability and so it is considered a beneficial adjunct in improving reaching in spastic diplegic cerebral palsied children.</p>		
Key words	1.	CP (cerebral palsied).
	2.	Contoured foam seat.
	3.	reaching, motion analysis.
	4.	spastic diplegic.
	5.	children.
Arabic Title Page	:	تأثير مقعد اسفنجي خاص على مهارة توصيل اليد أثناء الجلوس عند الاطفال ذوي الشلل المخي التقلصي المزودج.
Library register number	:	1050-1051.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Nahed Shukri Thabet.
Title	:	The effect of heavy weight knee immobilizer and pelvic band on standing posture in dyskinetic cerebral palsy children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El-Sayed Shoukry.
	2.	Faten Hassan Abd El-Aziem.
	3.	Khaled Ahmed Olama.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The purpose of this study was to investigate the effect of heavy weight knee immobilizer and pelvic band on standing posture in choreaathetoids cerebral palsied children thirty chorea athetoids children (18 girls and 12 boys)ranged from three to five years participated in this study they were divided randomly into two groups of equal number (control and study)the control group was treated by selected exercise program , while the study group was received the selected physical therapy program given to the control group in addition to immobilization of pelvis and lower limb evaluation was carried out before and after three months of treatment it included measuring the angles of trunk and shoulder joints (ten second after release of holding)by using video camera for recording and analysis by the AutoCAD program also calculate time of stability in second till first falling after release of holding and number of falling per two minutes the results of the study group after the suggested period of treatment revealed significant improvement in the trunk angles , time of stability in second till first falling and number of falling variables there was significant difference between study and control group improvement in the study group may be attributed to the effect of heavy weight knee immobilizer and pelvic band.</p>		
Key words	1.	Immobilizer.
	2.	Standing.
	3.	Dyskinesia.
	4.	cerebral palsy.
	5.	children.
Arabic Title Page	:	تأثير مثبت الركبة وحزام الحوض والثقل علي التحكم في الوقوف عند الاطفال المصابين بالحركات اللاارادية نتيجة الشلل الدماغي.
Library register number	:	1054-1055.

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Author	:	Rasha Abd EL-Moneim Mohamed Ibrahim.
Title	:	Effect of proprioceptive stimulation on sit to standing pattern in 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.	Mohamed Tawfik Mohmoud.
	3.	Faten Hassan Abd EL-Aziem.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The purpose of this study was to investigate the effect of a standing frame as a method of a proprioceptive stimulation and especially selected exercise program on sit to standing pattern in diplegic cerebral palsied children thirty diplegic children their age ranging from three to five years , divided randomly into control and study groups the control group received especially selected exercise program , while the study group was received same physical therapy program given to the control group in addition to the proprioceptive stimulation via the standing frame evaluation was included measurement of the time taken to complete sit to standing pattern by each child individually , and the trunk and lower limb joints angles at 0% , 25% , 50% , 75% and 100% from the time measuring by using AutoCAD analysis program the results of the study revealed significant improvement in most of the measuring variables of the control group and highly significant improvement in all the measuring variables for the study group it may be concluded that proprioceptive stimulation via the standing frame may be used in habilitation of sit to standing pattern of the diplegic children.</p>		
Key words	1.	Proprioceptive stimulation.
	2.	sit to standing pattern.
	3.	Diplegic.
	4.	cerebral palsy.
	5.	children.
Arabic Title Page	:	تأثير تنبيه الادراك الحسي علي الوقوف من الجلوس في الاطفال من المصابين بالشلل المخي التشنجي.
Library register number	:	1056-1057.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Safy El-din Mahmoud Abo-Ali.
Title	:	Muscle tone modulation using non-invasive electrical vestibular stimulation in cerebral palsied children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Emam Hassan El-Negamy.
	2.	Ann A. Abd El-Kader.
	3.	Fatma Hassan Abd El-Azeim..
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The purpose of this study was to evaluate the immediate and carry over effect of using transcutaneous electrical nerve stimulation (TENS) binateral vestibular system stimulation on muscle tone modulation in soastic cerebral palsy children. the study was conducted on 10 spastic diplegic cerebral palsied children 5 boys and 5 girls their ages ranged from 14 to 48 months the degree of spasticity. was mild to moderate according to modified Ashworth scale (1 + 1o 2). the evaluation included modified Ashworth scale conducted before and after treatment, while Hoffmann reflex and myogenic response ratio was measured before and after each treatment session. TENS vestibular stimulation was applied for 30 minutes using external rubber electrodes reto-biauricular on the mastoid process. it was performance on 50 consecutive days with 2 days rest, which was followed, by anther 5 consecutive days of stimulation. TENS pulse frequency was 100 Hz with intensity of 4 mA. it was combined with the traditional treatment in the form of neurodevelopment techniques (NDT). the results of the present study showed a non-significant changes of CNS excitability in children with spastic diplegic CP who were treated by combining two physical therapy techniques, namely TENS vestibular stimulation and the traditional treatment in the form of (NDT). Technique measured by Hoffmann reflex, myogenic response ratio and modified Ashworth scale. it may be concluded that TENS vestibular stimulation needs further investigations by using longer duration to be used in rehabilitation of spastic diplegic CP children.</p>		
Key words	1.	Cerebral palsy.
	2.	Diplegia.
	3.	Electromyography.
	4.	transcutaneous electrical nerve stimulation.
	5.	vestibular stimulation.
	6.	children.
Arabic Title Page	:	استخدام التنبيه الكهربائي السطحي الغير ضار للجهاز الدهليزي لتعديل النغمة العضلية عند الأطفال المصابين بالشلل الدماغي.
Library register number	:	1046-1047.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Samah Attia Tolba Mohamed El-Shiemy.
Title	:	Effect of postural control exercises in spider cage on standing pattern in spastic diplegic children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El - Sayed Shoukry.
	2.	Mohamed Tawfik Mahmoud.
	3.	Fatma Abd El-Fattah Hegazy.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>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 given to 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 the spider cage on improving standing pattern.</p>		
Key words	1.	Cerebral palsy.
	2.	Diplegia.
	3.	Spider cage.
	4.	Postural control.
	5.	Gross Motor Function Measure.
	6.	GMFM.
	7.	children.
Arabic Title Page	:	تأثير تمارين التحكم في القوام داخل الوحدة القفصية للتمرينات على أنموذج الوقوف عند الاطفال المصابين بالشلل التقلصي المزودج.
Library register number	:	1058-1059.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Shorok Ahmed Wagdi Awad El-Shennawy.
Title	:	Validity of fixed ankle foot orthoses with extra wide base on standing postural control in spastic hemiplegic children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abd El-Aziem El-Talawy.
	2.	Kamal El - Sayed Shoukry.
	3.	Gehan Hassan El-Meniawy.
Degree	:	Master.
Year	:	2004.
Abstract	:	
<p>The purpose of this study was to evaluate the standing postural control in spastic hemiplegic children following the participation in a balance training program on biodex stability system while wearing fixed AFO with extra wide base in addition to the traditional therapeutic exercise program. thirty spastic hemiplegic children, ranged in age from 6 to 8 years old participated in this study . they were classified randomly into two received balance training on Biopdex while wearing traditionally fixed AFO in addition to the traditional therapeutics exercise program. the study group received the same balance training on Biodex but while wearing specially designed fixed AFO with extra wide base in addition to the same exercise program. balance parameters were assessed using Biodex stability system in both groups with and without orthoses, before and after two months of the application of the treatment program. the results of this study revealed statistically highly significant improvement in nearly all of the measuring variables of the study and control groups ($P<0.01$)when comparing pre and post treatment results, and when comparing the post treatment results' of the study and control groups ($P<0.01$). from the obtained results of this study, it can be concluded that, AFO with extra wide base can be considered a beneficial modality hat may be used to improve standing postural control in spastic hemiplegic children.</p>		
Key words	1.	Balance.
	2.	postural control.
	3.	cerebral palsy.
	4.	Hemiplegia.
	5.	ankele foot orthosis.
	6.	children.
Arabic Title Page	:	مصداقية جبيرة كاحل القدم الثابتة ذات القاعدة الأكثر عرضا علي التحكم في القوام من وضع الوقوف عند الاطفال المصابين بالشلل النصفي الطولي التقلصي.
Library register number	:	1042-1043.