

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

**Doctoral Degree
2015**

Author	:	Ahmed Mohamed Elsayed Moustafa Elnahhas
Title	:	Calf muscle strength and standing efficiency in children with spastic diplegia
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Emam Hassan El-Negmy
	2.	Hatem Mohamed El-Azizi
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of this study is to evaluate the effect of calf muscle strengthening on standing function and posture in spastic diplegic cerebral palsied children. Thirty spastic diplegic children with age ranged from 2 to 4 years participated in this study. They were assigned randomly into two groups of equal numbers, control and study groups. Each patient of the two groups was evaluated before and after treatment by using standing dimension of GMFM-88, AutoCad 2007 software program for measuring knee and ankle joints angles in sagittal plane during standing, and ultrasonography for measuring calf muscle thickness before and after three successive months of application of the treatment programs. The control group received a selected physical therapy program for one hour per session. The study group received the same selected physical therapy program given to the control group for one hour in addition to strengthening exercises and electrical stimulation program for calf muscles of both lower limbs, three sessions per week for three successive months. The pre-treatment results revealed no significant difference in all measured variables (standing dimension score, knee and ankle angles and calf muscle thickness) between the two groups. While significant difference in all these variables between the two groups were recorded after the treatment period in favor of the study group. These results show the importance of strengthening the calf muscles in spastic diplegic children to improve standing posture and function.</p>		
Key words	1.	Calf Muscle
	2.	Strengthening Exercises
	3.	Spastic Diplegia
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	80 p.
Arabic Title Page	:	قوة عضلة السمانة و كفاءة الوقوف في الأطفال المصابين بالشلل التقلصي المزودج
Library register number	:	4247-4248.

Author	:	Amany Rashid Tawfiq Masood
Title	:	Effect of Treadmill Training Versus Short Circuit Exercises on Total Cholesterol for Obese Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham El-Sayed Salem
	2.	Mohamed Tawfik Mahmoud
	3.	Nebal Abd Elrahman Abo El Ella
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of this study was to compare between the effect of treadmill training program and the short circuit training program on total cholesterol level in obese children. Forty obese children were selected from both sexes. Their ages ranged from 6-10 years old. They were assigned randomly into two study groups of equal numbers; group (I) and group (II). Each patient of the two groups was evaluated by using body mass index and laboratory fasting total cholesterol level before and after twelve successive weeks of the training programs. The study group (I) received a balanced diet regimen for weight reduction, and special treadmill training exercise program. The study group (II) received the same diet regimen for weight reduction and a specific short circuit training exercises. The training programs were conducted 3 times/week for twelve successive weeks. The pre-treatment results revealed no significant difference in all measured variables between the two groups. Pre and post treatment results within each group had significant difference indicating decrease in total cholesterol level. Total cholesterol level post treatment results for both groups were significantly reduced in favor of study group (II) in comparison with study group (I).</p>		
Key words	1.	Obese children
	2.	Total cholesterol level, Balanced diet regimen
	3.	Short circuit, Treadmill, Body mass index
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	101 p.
Arabic Title Page	:	مقارنة بين تأثير تمارين سير المشى الكهربائي و تمارين المسار الضيق على المستوى الكلى للكوليستيرول في الدم لاطفال السمنة.
Library register number	:	4451-4452.

Author	:	Doaa Tammam Atia
Title	:	Work Related Musculoskeletal Disorders in Pediatric Physical Therapists: Risk Factors Control
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abd El Azim
	2.	Hamdy Ahmed Morsi
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of this study was to investigate the work related musculoskeletal disorders in pediatric Egyptian physical therapists and identifying job risk factors. The study was conducted on one hundred fifty pediatric physical therapists with at least one year of work experience in their current work settings from different Egyptian governorates who were invited to participate in a comprehensive six- part exploratory survey. Two questionnaires were used in this study: Nordic Musculoskeletal Questionnaire (NMQ) and Job Content Questionnaire (JCQ). Questionnaires were distributed and mailed among prospective participants who were selected according to the previous sited criteria with a cover letter stated the purpose of the study. Participants were asked to complete and return the questionnaire within two weeks. The results showed the prevalence of work- related musculoskeletal disorders (WRMDs) among pediatric physical therapists. There was a high positive correlation between WRMSDs and physical risk factors while a non significant correlation with job strain. We can conclude that the physical demands of pediatric physical therapy practice is a major risk factor facing this profession leading to WRMDs.</p>		
Key words	1.	Work- related musculoskeletal disorders
	2.	pediatric physical therapist
	3.	risk factors
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	146 p.
Arabic Title Page	:	اضطرابات الجهاز العضلي الناتجة عن العمل لدى اخصائى العلاج الطبيعى للأطفال: التحكم فى المخاطر.
Library register number	:	4321-4322.

Author	:	Eman Wagdy Mahmoud
Title	:	Anthropometric Measurements In Relation to Trunk Muscles Endurance and Spinal Mobility in Primary School Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham El Sayed Salem
	2.	Eman Ibrahim El-Hadidy
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	

Background: Anthropometric variables influence the individual's stability and it makes sense that it would influence endurance. Data on anthropometric characteristics, trunk muscles endurance, and spinal mobility are the subject of many studies. **Purpose:** To compare trunk muscles endurance and spinal mobility values between boys and girls and; to determine the correlation of the age and selected anthropometric measurements with trunk muscles endurance and spinal mobility in primary school children. **Methodology:** Three hundred out of three hundred and fifty school children with age from 7 to 12 years underwent anthropometric measurements included body weight (BW) in kg, body height (BH) in meter and body mass index (BMI) in Kg/m²; trunk muscle endurance test/seconds (extensors & flexors) and spinal range of motion test/degrees (lumbar extension & flexion ROM). **Results:** The results revealed no significant difference in trunk (extensors & flexors) muscle endurance and lumbar flexion ROM values between boys and girls while significant difference in lumbar extension ROM values between them. Age and BH had positive correlation with trunk extensors muscle endurance and lumbar extension ROM for both sexes while negative correlation with other measures for both sexes. BW and BMI had negative correlation with trunk (extensors & flexors) muscle endurance and lumbar (extension & flexion) ROM for both sexes. **Conclusion:** This study demonstrated significant difference between boys and girls in lumbar extension ROM values while, no significant difference between them in other measures. According to the strength of the correlation; boys and girls had different relationships of the age and selected anthropometric measurements (BW, BH and BMI) with trunk muscle endurance values, and spinal mobility values.

Key words	1.	Anthropometric measures
	2.	Trunk muscle endurance tests
	3.	Spinal ROM
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	149 p.
Arabic Title Page	:	القياسات الأنثروبومترية وعلاقتها بقوة تحمل عضلات الجذع وليونة حركة العمود الفقري في أطفال المدارس الابتدائية
Library register number	:	4369-4370.

Author	:	Heba Hazzaa Abd El-Wahab Hazzaa
Title	:	Assessment of Flat Foot in Obese Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Gehan Hassan El-Meniawy
	2.	Dr. Safaa El-Hussien Tawfik Ahmed
	3.	Dr. Mohamed Beder Ibrahim
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of this study was to detect the correlation between age, sex and body mass index with flat foot deformity in children. Four hundred fifty children ranged in age from 8 to 14 years participated in this study. They were classified according to their body mass index (BMI) into three main groups of equal numbers (normal-overweight-obese), Each group was divided according to gender into two sub groups (75 boys ,75 girls) , then each sub group divided according to age into equal three sub groups (from 8 to 10 years , from 10 to 12 years , and from 12 to 14 years), each sub group composed of 25 children. Evaluation was done using the Foot Posture Index -6 (FPI-6) and foot print .The Foot Posture Index -6 (FPI-6) was used to asses foot posture while foot print was used to measure Stahili planter arch index(PI). The results of this study showed that there were significant statistical differences in FPI-6 score and PI between three main groups and between boys and girls, while there were no significant statistical differences in FPI-6 score and PI in relation to age. From the obtained data, it was concluded that there was significant positive correlation between BMI and gender with incidence of flat foot , while there was no significant correlation between age and incidence of flat foot.</p>		
Key words	1.	Flat Foot, Obese Children
	2.	Body Mass Index
	3.	Stahili Planter Arch Index, Foot Posture Index -6
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	144 p.
Arabic Title Page	:	تقييم القدم المسطحة في الأطفال البدناء
Library register number	:	4569-4570.

Author	:	Mai Elsayed Abbass Mohamed
Title	:	Effect of Sensory Integration Program on Quality of Life of the Spastic Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El-Sayed Shoukry
	2.	Kamilia Saad
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of the study was to evaluate the effect of the sensory integration program on the quality of life and on the gross motor development in the spastic diplegic children. Thirty children 7 to 9 years old participated in the study, classified randomly into 2 groups control group received selected physical therapy program and study group; received selected physical therapy program and specially designed sensory integration program. Both groups were assessed by Egyptian Quality of Life Questionnaire for the Children with Cerebral Palsy and Peabody Developmental Motor Scales 2 before and after 3 successive months. Comparing the pre-treatment mean values of the two groups revealed non-significant differences between the two groups. Comparing the pre and post-treatment mean values of the two groups revealed significant improvement in gross motor development in the study and control group but the improvement in the study group was more significant than the improvement in the control group and non-significant improvement in quality of life of the control group while in the study group there was a significant improvement in their quality of life. So it was concluded that sensory integration program improved gross motor development and quality of life of the spastic diplegic children.</p>		
Key words	1.	Cerebral palsy
	2.	diplegia, quality of life
	3.	sensory integration
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	143 p.
Arabic Title Page	:	تأثير البرنامج الحسي على نوعية الحياة للأطفال الذين يعانون من الشلل التشنجي .
Library register number	:	4075-4076.

Author	:	Mona Nabil Mohamed Ayad
Title	:	Influence of Enhanced Handling and Positioning on Motor Development Through The First Year of Life.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira Mohamed El Tohamy
	2.	Hebatallah Mohamed Kamal
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The purpose of this study was to determine the influence of enhanced handling and positioning program on motor development of full term and low risk preterm infants. One hundred and twenty four infants from both sexes participated in this study 95 full term infants and 29 low risk preterm infants. Assigned into Three groups, group (A) control, group (B) study and group (c) 2nd study group (preterm infants). Full term infants were randomly assigned according to order of admission into either group A or B. A baseline examination of motor development was performed at two months of age for all groups, an examination after four weeks of (enhanced handling and positioning program for group (B) and (C) versus social experience for group (A), and a follow up examination at six and twelve months of age using Alberta infant motor scale (AIMS), in addition to kinematic analysis of emergent reaching pattern from supported sitting position using kinovea motion analysis software at six months of age. The pre- intervention results revealed no significant difference between group A and B and significant difference between group C and groups (A & B) in motor development. Significant improvement was found in all measured variables in favor of the study groups post intervention and up to twelve months. These results highlight the importance of early intervention and family centered care in full term as well as preterm infants.</p>		
Key words	1.	Motor development
	2.	Infancy
	3.	Handling and positioning
	4.	Motion analysis and Reaching
	5.	
Classification number	:	000.000.
Pagination	:	108 p.
Arabic Title Page	:	تأثير الايداء و الوضعية المعزز على النمو الحركي خلال السنة الاولى من العمر
Library register number	:	4227-4228.

Author	:	Nehad Ahmed Youness
Title	:	Efficacy of transcranial magnetic stimulation on balance in children with spastic diplegia
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Emam Hassan El-Negmy
	2.	Amina Hendawy Salem
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The Propose of this study was to investigate the effect of Transcranial Magnetic Stimulation on balance in children with spastic diplegic cerebral palsy. Fourtychildren of spastic diplegic cerebral palsy ranged in age from 6 to 10 years participated in this study. They were selected from both sex and were classified randomly into 2 groups of equal number twenty patients each, control group (A) & study group (B). Balance parameters were assessed using the Biodex stability system in both groups before and after three successive months of the application of the treatment program. The control group (A) received a selective physical therapy balance training program for one hour. The study group (B) received the same program received by the control group in addition to application of Transcranial Magnetic Stimulation for 15 min at 15 Hz frequency. Before starting treatment program no significant difference was recorded between the mean values of the parameters used for evaluation of the two groups. The results also revealed statistically significant improvement in the measuring variables of both the control and study groups when comparing their pre and post treatment mean values. After treatment program significant difference was recorded between the two groups in favor of the study group which support adding of Transcranial Magnetic Stimulation for 15 min at 15 Hz frequency to the balance training program in rehabilitation of children with spastic diplegic cerebral palsy.</p>		
Key words	1.	Diplegic cerebral palsy
	2.	Balance
	3.	Postural Control and Transcranial Magnetic Stimulation
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	146 p.
Arabic Title Page	:	فاعلية التنبيه المغناطيسي عبر الجمجمة على الاتزان لدى الأطفال المصابين بالشلل التقلصى المزدوج
Library register number	:	4317-4318.

Author	:	Safi Mahmoud Mahmoud Ahmed
Title	:	Family education program: its impact on quality of life for obese children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Prof. Dr.Faten Hassan Abd ElAzem
	2.	Fikry Mohammed EL Atre
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>Purpose: The purpose of this study was to determine the effect of educational program on quality of life for obese children due to bad eating behavior. Subjects: children of both sexes ranged in age from thirteen to sixteen years participated in this study. They were classified randomly into two groups of equal numbers. Evaluation: A quality of life survey and pediatric inventory scale used before and after treatment to evaluate the efficacy of application of educational program in changing children quality of life. Intervention: The first group received designed program of weight control including low calorie diet and walking. The second group received designed program of weight control including low calorie diet and walking in addition to designed educational program. Results: Comparing the pre and post-treatment mean values of the measuring variables of the two groups revealed significant improvement in both weight and fat percentage that appeared in child and family re assessment after educational program. There was a significant difference in the post treatment values ($P < 0.05$) where the t-value was (2.14) and p-value was (0.03) concerning weight. There was a significant difference between pre and post treatment Body fat mass as the mean value of pre treatment Body fat mass was (41.07 ± 4.66) and for post treatment Body fat mass was (38.76 ± 4.3) where the t-value was (13.62) and P-value was (0.0001). The percentage of improvement was 5.62 % Conclusion: Family education program has an effect on quality of life in obese children.</p>		
Key words	1.	Family education program
	2.	Quality of life
	3.	Obesity , Children.
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	108 p.
Arabic Title Page	:	تأثير البرنامج التعليمي على جودة الحياة لدى الاطفال المصابين بالسمنة
Library register number	:	4055-4056.

Author	:	Shereen Ali Ameen
Title	:	Cognitive Assessment for Egyptian School- Age Children Normative Data
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abd El-Azim
Degree	:	Doctoral.
Year	:	2015.
Abstract	:	
<p>The Purpose of this study was to establish a cognitive growth profile for Egyptian school-aged children in the following cognitive domains (attention, memory, logical thinking and executive functions) and to investigate the age and gender- related differences of children`s performance on all the variables measured. Method: 716 healthy school aged children of both sexes ((333 males and 383 females) ranged in age from six to twelve years were selected according to their scores on Draw A Person test and Pediatric Symptom Checklist to participate in this study. The recruited children were assessed by using Rehacom computerized software program. Four selected programs were used to represent the cognitive domains (vigilance, topological memory, logical reasoning and exploration). Results: Depending on the descriptive analysis and separate one- way analysis of variance used in this study the results revealed a progressive significant linear effect on development on the children`s cognitive abilities with increase age while the gender had no significant effect on all the variables measured. Conclusion: From the obtained results of this study, it could be concluded that, the executive function ability was the first to initiate followed by the logical thinking and finally the memory and sustained attention respectively which would be considered as normative baseline values for the children from six to twelve years in the measured cognitive domains.</p>		
Key words	1.	Egyptian children
	2.	cognitive domains
	3.	computerized assessment
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	166 p.
Arabic Title Page	:	قياس القدرة المعرفية - بيانات معيارية لأطفال المدارس المصريين .
Library register number	:	4305-4306.