

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

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

Master Degree

2016

Author	:	Abdalahem Mahmoud Altonoby
Title	:	Establish registry of cerebral palsy in tanta egypt
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Mohamed Tawfek
	2.	Faten Hassan Abd El Azeim
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: Cerebral palsy (CP) registers appear to be appropriate tools for answering questions regarding the prevalence and characteristics of this common childhood disability. Purpose; This study was conducted to establish data base for CP in Tanta city and its surrounding cities (Kafr Alzayat, Basioon and Elsanta) ,Al-gharbeya Governorate. Subjects, Materials and Methods: Children with CP who are receiving physical therapy services of both genders, from 4months to 16 years old in Tanta and its surrounding cities were involved. The outcome measures were Gross Motor Functional Classification System (GMFCS), Gross Motor Functional Measurement (GMFM), Manual ability classification system (MACS) and Viking Speech Scale. Results: Within the study population (224 children), 79.9% are spastic type, 9.8% are dyskinetic, 5.8% are ataxic and 4.4% are hypotonic. Percentage based on GMFCS were; 12.9% for level I, 13.8% for level II, 29% for level III, 20.9% for level IV, and 23.2% for level V. According to MACS levels (I,II,III,IV and V) were 23.4%,9.3%, 20.3%,45.3% and 1.5% respectively and Viking levels I,II,III, and IV were 20.3%,22.9%,35.1%,21.6% respectively Conclusion: Incidence of spastic type of CP is the major while hypotonic is the least prevalence.</p>		
Key words	1.	Registry
	2.	Tanta
	3.	GMFM
	4.	GMFCS
	5.	MACS
	6.	VIKING
	7.	Cerebral palsy
Classification number	:	000.000.
Pagination	:	100 p.
Arabic Title Page	:	تسجيل مرضى الشلل الدماغى فى م دينة طنطا – مصر
Library register number	:	5245-5246.

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Author	:	Ahmed Abd Elmonem Ibrahim Ahmed
Title	:	Underwater exercises versus land-based exercises in treatment of Erb's palsy
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Gehan Hassan Elmeniawy
	2.	Nahed Shukri Thabet
	3.	Hassan Magdy EL-Barbary
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>This study was designed to compare between underwater and land based exercises effect on isometric strength of shoulder flexors and shoulder flexion range of motion in children with unilateral Erb's palsy. Thirty children with unilateral Erb's palsy from both sexes (16 boys and 14 girls) participated in this study .They were classified as grade 3 according to Mallet score system. Their ages ranged from 26 to 39 months, they were randomly assigned into two equal groups: study group (A) who received under water exercise program and study group (B) who received land-based exercise program .Isometric strength of shoulder flexors and shoulder flexion range of motion were measured by Hand Held Dynamometer and AutoCAD program respectively. Treatment program extended for three months, 3 sessions per week where evaluation for each child in both groups was done before and after it. Pretreatment results of this study revealed non-significant difference between the two groups; while the results revealed a statistically significant improvement in the measuring variables in both group (A) and group (B) when comparing their pre and post treatment mean values. Significant difference was also observed when comparing post treatment results of the two groups in favor of study group (A). Conclusion: The obtained results suggested that underwater exercises therapy is beneficial to improve isometric strength of shoulder flexors and shoulder flexion range of motion in children with unilateral Erb's palsy.</p>		
Key words	1.	Erb's palsy
	2.	underwater exercises
	3.	land based exercises
Classification number	:	000.000.
Pagination	:	139 p.
Arabic Title Page	:	التمارين تحت الماء مقابل التمارين الأرضية في علاج الشلل الاربى .
Library register number	:	5201-5202.

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Author	:	Asmaa Saed Attiya Abdel Mageed
Title	:	Effect of Myopia on Visual Motor Integration in Schoolchildren
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Samia A. Abdel Rahman
	2.	Hossam El Gemeey El Demohy
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of this study was to investigate the effect of myopia on visual motor integration (VMI) in schoolchildren aged from 6 to 10 years old. Ninety seven myopic physically healthy schoolchildren of both sexes participated in this study. Their ages ranged from 6 to 10 years. They were classified into two age specific groups with 44 children in age group under 8 years and 53 children in age group above 8 years. Degree of myopia was measured by optometrist via Auto-refractive device. Assessment of VMI was performed by the researcher via using Bruininks-Oseretsky test of motor proficiency. Results revealed that there was a positive correlation between degree of myopia and VMI for both right and left eyes during wearing glasses as well as without glasses. Results revealed that significant differences between the two age groups regarding VMI during wearing glasses as well as without wearing glasses. It was concluded that myopia has a negative effect on VMI in schoolchildren aged from 6 to 10 years.</p>		
Key words	1.	Visual disorders
	2.	Visual motor integration
	3.	Visual acuity
	4.	Myopia
	5.	Bruininks-Oseretsky test of motor proficiency (BOTMP).
	6.	School children
Classification number	:	000.000.
Pagination	:	92 p.
Arabic Title Page	:	تأثير قصر النظر على التكامل البصري الحركي عند أطفال المدارس .
Library register number	:	5227-5228.

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Author	:	Asmaa Salah El-Sayed Atwa
Title	:	Coordination Assessment in Children With Down Syndrome
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Gehan Mosaad Abd El- Maksoud
	2.	Maha Saad Zaki
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: Coordination is extremely important in humans' development and makes a significant contribution to physical fitness and health. Children with Down syndrome (DS) experience a lot of troubles from intellectual disability through motor impairment-related to coordination deficiency. Objective: This study was conducted to evaluate the coordination components (manual and body coordinations) in children with DS and to compare them between boys and girls. Methods: Fifty boys and fifty girls with DS, aged from 8 to 10 years participated in this study. The coordination skills of those children were evaluated using the Bruininks Oseretsky Test of Motor Proficiency (BOT-2). Two motor-area composites from the BOT-2, manual coordination and body coordination, were specifically selected for their strong correlation to coordination and motor ability. Results: The study showed poor performance of children with DS in both manual and body coordination. The majority of children lied outside the average range. Regarding manual coordination 68% of boys lied in well-below average range and 32% lied in below average range, while in girls 88% lied in well-below average range and 12% in below average range. Concerning body coordination, 16% of boys lied in well-below average range, 66% lied in below average range and 18% in the average range, while in girls 34% lied in well-below average range and 66% in below average range. Moreover, the results revealed gender difference in favor of boys as they were superior to girls in all measuring subtests. Age equivalent of those children fell in the range of 4.77 to 6.64 years (yrs) in all subtests. Conclusion: It can be concluded that children with DS have motor coordination deficits that are more obvious in girls than boys.</p>		
Key words	1.	Coordination
	2.	Assessment
	3.	Down syndrome
	4.	Motor skills
	5.	Manual coordination
	6.	Body coordination
	7.	Children
Classification number	:	
Pagination	:	178 p.
Arabic Title Page	:	تقييم التوافق العضلي العصبي لدي الأطفال المصابين بمتلازمة داون.
Library register number	:	4821-4822.

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Author	:	Christina Roushdy Ramzy Wesa
Title	:	Comparative Study of Upper Limb Movement Pattern Between Full Term and Preterm Infants
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Gehan Hassan Elmeniawy
	2.	Nahed Shukri Thabet
	3.	Bothina Mohammed Elnaggar
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>This study was designed to compare upper limb movement pattern between full term and preterm infants at two, four and six months of age. sixty infants from both sexes were enrolled in this longitudinal study. Group (A) included 30 full term infants while group (B) included 30 preterm infants. A digital camera was mounted on a tripod placed in front and lateral to infants to capture the infant's upper limb movements. The resultant captured video was processed using free studio program to divide it into 500 frame in the form of images. These images were analyzed by AutoCAD program to measure angles of shoulder (flexion and abduction), elbow (flexion and extension) and wrist (flexion and extension). Results revealed statistically difference in the measured angles of both groups when comparing their mean values. These results provide a high predictor for later movement performance and analysis of these movements is a valuable tool for the diagnosis of infant movement disorders.</p>		
Key words	1.	Movement pattern
	2.	full term infants
	3.	preterm infants
	4.	Upper Limb Movement
Classification number	:	000.000.
Pagination	:	134 p.
Arabic Title Page	:	دراسة مقارنة لنمط حركة الطرف العلوي بين الرضع كاملي النمو والمبتسرين .
Library register number	:	5225-5226.

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Author	:	Eman Shawky Abd Al Moneam Ismeal
Title	:	The Influence of Partial Body Weight in Combination to Ankle Weight on Gait Kinematics in Spastic Diplegic Child
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal EL Sayed Shoukry
	2.	Hisham Abd EL Ghany
	3.	Walaa Abd El Hakiem Abd El-Nabi
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: The improvement or maintenance of walking ability of the children with spastic cerebral palsy is often considered to be primary of most therapeutic interventions treadmill training with Partial body weight has been used in the treatment of children with CP in an attempt to maximize walking independence, gait speed, and walking endurance. Purpose: To determine the effect of partial body weight in combination to additional ankle weight on gait kinematics in children with spastic diplegic cerebral palsy. Methodology: Thirty spastic diplegic children from both sexes (13 girls and 17 boys) of chronological age ranged from 4 to 7 years participated in this study. They were divided equally into two groups; control group received the regular therapeutic exercise program based on Pragmatic approach whereas the study group received the same regular therapeutic exercise program given to control group and 30 minutes of partial body weight support treadmill training (30% relief of total body weight) with additional weight at ankle level. Kinematic gait parameters were assessed by using two Dimension (2D) gait analysis while standing and walking abilities were evaluated by Gross Motor Function Measure (GMFM) before and after three successful months of treatment. Results: there is improvement in both control and study group after treatment when comparing the pre and post treatment results and also when comparing the post treatment result of both group there was significant improvement in favor of study group. Conclusions: partial body weight treadmill training (30% relief of total body weight) in combination to additional ankle weight could be used in addition to the designed methods of treatment to improve locomotion abilities and gait pattern in children with spastic diplegia.</p>		
Key words	1.	Cerebral palsy
	2.	Spastic Diplegia
	3.	Partial body weight
	4.	Ankle Weight on
	5.	Gait Kinematics i
	6.	Spastic Diplegic Child
Classification number	:	000.000.
Pagination	:	101 p.
Arabic Title Page	:	تأثير التقليل الجزئي للوزن بالإضافة إلى وزن مضاف عند القدم على المتغيرات الكينماتيكية للمشي في الأطفال المصابين بالشلل التقلصي المزودج.
Library register number	:	4901-4902.

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Author	:	Eslam Elsayed Hassan
Title	:	Effect of Serial Casting on Hand Functions in Children with Hemiplegic Cerebral Palsy
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Samia Abdel Rahman Abdel Rahman
	2.	Shorouk Ahmed Wagdi Elshennawy
	3.	Tarek El-Sayed Ismail Omar
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: In children with hemiplegic cerebral palsy, the upper limb is more affected than the lower limb, and the impairments affect the child's ability to reach, grasp, release and manipulate objects. Purpose: To investigate the effect of serial casting on hand grasping skills, hand grip strength and the participation of the children in the self care activities. Subjects and Methods: Twenty children with hemiplegic cerebral palsy with age ranged from 4 to 8 years participated in this study. All children were evaluated before and after one month of treatment using the dissociated movement and grasp domains of Quality of Upper Extremity Skills Test, Pneumatic, bulb hand dynamometer and the self care domain in Pediatric Evaluation of Disability Inventory. They were classified into two groups of equal number. Group (A): Serial casting was applied for children in this group for three successive weeks with its removal in the last two days in each week, at those two days occupational therapy sessions were given to the children. In the fourth week static night hand splint in addition to occupational therapy sessions were given to the children. Group (B): This group received the same occupational therapy program that was given to group A, three times per week for four successive weeks. Results: The study revealed non-significant difference between the two groups before treatment. While after intervention, a significant differences were reported between the two groups in favor of the study group (A) only in hand grip strength and in the participation in self care while a non-significant difference was found in dissociated movement and grasp. Conclusion: Serial casting has a positive effect on improving hand grip strength and self care activities in children with hemiplegic cerebral palsy.</p>		
Key words	1.	Cerebral palsy
	2.	Serial casting
	3.	Hand functions
	4.	Children
	5.	Hemiplegic Cerebral Palsy
Classification number	:	000.000.
Pagination	:	124 p.
Arabic Title Page	:	تأثير الجبس التتابعي على وظائف اليد في الأطفال المصابين بالشلل الدماغي النصفي
Library register number	:	4903-4904.

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Author	:	Heba Essam Adel Hussien
Title	:	Trunk Flexion Versus Extension Exercise Program On Post Natal Low Back Pain
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hanan El-Sayed ELMekawy
	2.	Mohamed Amr Hussien ElNoury
	3.	Marwa Abd El Rahman Mohamed
Degree	:	Master.
Year	:	2016.
Abstract	:	<p>Background: Low back pain is a devastating disorder that causes a huge degree of human suffering as it has an effect on life and work capacity. Almost 45% of all pregnant women and 25% of all women postpartum suffer from pelvic girdle pain and/or low back pain as it has been suggested that increased motion of the three joints in the pelvic ring is one of the causes of back and pelvic pain. The aim: was to investigate the effect of trunk flexion exercise versus extension exercise program on post-natal low back pain. Material and methods: 30 patients with post-natal low back pain, their ages ranged from 25to 35 years old and their body mass index (BMI) wasn't exceed than 35kg/m² were enrolled in the study they were randomly assigned into 2 equal groups: flexion and extension exercise group. Visual analogue scale (VAS), Oswestry Disability Index and Tape measurement to measure range of motion of the flexion and extension of the lumbar spine (ROM) were measured for all participants pre- and post-treatment period. Results: There were significant differences regarding VAS and ODI between both groups post treatment. But there was no significant difference between the both groups regarding both flexion and extension ROM post treatment. Conclusion: combination of both flexion and extension exercise program is necessary to improve pain functional disability in patients with post natal low back pain.</p>
Key words	1.	Post-natal -
	2.	Extension exercise.
	3.	Flexion exercise
	4.	low back pain
	5.	Natal Low Back Pain
Classification number	:	000.000.
Pagination	:	95 p.
Arabic Title Page	:	برنامج تمارين الانحناء الأمامي مقابل تمارين الانحناء الخلفي للجذع على الأم اسفل الظهر بعد الولادة.
Library register number	:	5233-5234.

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Author	:	Hesham Salem Darwish
Title	:	Physical therapy registry for establishment of cerebral palsy in Imbaba North Giza
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Mohamed Tawfek
	2.	Elham Elsayed Salem
	3.	Amany Mousa Mohamed
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Patient registry is an organized document system to collect uniformed data that evaluate specified outcomes for population defined by particular disease that serves a predetermined scientific, clinical or policy purposes. Aim of the Work: This study was conducted to establish database about cerebral palsy in Imbaba District North Giza who received physical therapy. Subjects and Methods: Cerebral palsy children in ministry of health hospitals, units of family medicine and four private centers in Imbaba District North Giza were involved in this study. Cerebral palsy children who receiving physical therapy services of both genders, ranged in age from birth to 18 years, were subjected to confidential registry form. The outcome measures were gross motor function classification system, gross motor function measurement and manual classification system. Results: within the study population, 77.2% were spastic type, 11.4% were dyskinetic, 3.5% were ataxic and 7.9% not classified, percentage of CP based on GMFCS were, 2.6% for level I, 12.3% for level II, 25.4% for level III, 18.4% for level IV and 41.2% for level V. Percentage according GMFM, MACS were also recorded, analytical data of present study revealed: non-significant relation between gender delivery mood and 3 majors outcomes while significant relation was found between age and 3 major outcomes, also highly strong significant relation was found between MACS and GMFCS with an inverse relation between GMFM and both GMFCS and MACS. Conclusion: The current study revealed that CP children who are receiving physical therapy; incidence of spastic type is the major while is the least prevalence, ataxic type. High incidences of children with CP were level V in GM FCS, MACS. The results revealed that by excluding CP children with level V on GMFCS about 60% from CP study sample are actively ambulant, functional and able to communicate.</p>		
Key words	1.	Cerebral palsy
	2.	motor function classification system
	3.	Gross manual ability classification system
	4.	Gross Motor function measurement
	5.	Physical therapy registry
	6.	Imbaba North Giza
Classification number	:	000.000.
Pagination	:	112 p.
Arabic Title Page	:	انشاء نموذج قاعدة بيانات العلاج الطبيعي لمرضى الشلل المخي بمراكز امبابه - شمال الجيزة
Library register number	:	5159-5160.

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Author	:	Hisham Mohamed El-Sawy
Title	:	Efficacy of Ankle Phonophoresis for Stability on Balance in Children with Juvenile Rheumatoid Arthritis
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham El-Sayed Salem
	2.	Sherif Naseef Girgis,
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of this study was to investigate the effect of ankle joints phonophoresis on dynamic balance in children with polyarticular juvenile rheumatoid arthritis. This study was carried out on thirty children with polyarticular juvenile rheumatoid arthritis (eighteen girls & twelve boys) divided into two equal groups (control and study). Their age ranged from six to ten years old. They were selected from the National Institute of Neuromotor disorders and El kasr Elainy (collagen clinic). They were assessed in labs of the Faculty of Physical Therapy, Cairo University and treated in outpatient clinic of Manshiet El- Bakry Hospital. Their balance were evaluated by using the Biodex balance system equipment for measure (antero-posterior stability index, medio-lateral stability index and overall stability index) and Berg's balance scale before and after three successive months of treatment program. Control group received selected physical therapy program, while the study group received the same selected physical therapy program in addition to ankle joints phonophoresis. Treatment was conducted three times per week for three successive months. The results of this study revealed statistically significant improvement in all measured variables of the control and study groups when comparing their pre and post treatment mean values. However, significant improvement was marked in the study group when comparing the post treatment mean values of the study group with the control group. There was significant reduction in post treatment of overall stability index ($p= 0.008$), antero-posterior index ($p= 0.003$) and medio-lateral index ($p= 0.01$) respectively in favor of study group. There was significant increase in post treatment results of berg scale ($p= 0.000$) in favor of study group.</p>		
Key words	1.	Juvenile rheumatoid arthritis
	2.	Balance
	3.	Phonophoresis
	4.	Ankle Phonophoresis
	5.	Stability
	6.	Children
Classification number	:	000.000.
Pagination	:	118 p.
Arabic Title Page	:	فاعلية التأين بالموجات فوق الصوتية علي التوازن لدي الأطفال المصابين بروماتويد الصغار.
Library register number	:	4795-4796.

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Author	:	Ibrahim Mohamed Abd El Hakim
Title	:	Prevalence of obesity among secondary School children in Giza Governate
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abd El Aziem
	2.	Hoda Abd El Aziem El Talawy
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Objectives: To determine prevalence of obesity, distributions of body fats in school children and analyze the factors leading to obesity in secondary school children in Giza governate. subject: 1021 participants were selected from different schools of Giza governate-Egypt through Convenience sampling technique aged 15 - 18 years from both genders were willing to participate in this study. Materials and methods: the questionnaire was given to the selected students and assessed for height, weight measurement and body composition through inbody120. Data entry was done on SPSS version 21 and frequencies and percentages were taken as descriptive statistics for variables. Results: Male represented 48.5% and female represented 51.5%. It was found that majority 58% of the children normal BMI while 36.5% were overweight and obese. In addition, 54.9% students were not participating in any physical activity. It was also interesting to find out that 78.1% with high percent body fat and 69.5% with peripheral obesity. Furthermore, 77.9% students had trunkal obesity. Conclusions: is the prevalence of obesity was 14.7%, and the major risk factor was lack of physical activity. Also the usage of fast food and cannot ignored the role of family history and type of diet.</p>		
Key words	1.	Obesity
	2.	Children
	3.	secondary school age
	4.	Giza Governate
Classification number	:	000.000.
Pagination	:	129 p.
Arabic Title Page	:	انتشار السمنة بين أطفال المدارس الثانوية في محافظة الجيزة.
Library register number	:	4987-4988.

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NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Mohamed Ali El-Sayed Abdullah
Title	:	Effect of Intensive Hand Therapy on Quality Of Life and Hand Performance on Burned Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Manal Salah El-Dien
	2.	Alaa Atef Fiad
Degree	:	Master.
Year	:	2016.
Abstract	:	Children with thermal burn of forearm and hand suffering from pain, limitation of range of motion (ROM), limitation in hand function and affect quality of life. Objective: The purpose of this study is to detect the effect of intensive hand therapy on hand function and quality of life in post thermal burn children. Subjects and procedures: Thirty children suffering from thermal burn in forearm and hand, ranged in age from nine to twelve years participated in this study. They were divided randomly to two groups (control and study groups). The control group received the treatment program including pulsed ultrasound, stretching, mobilizing and strengthening exercises. The study group received intensive hand therapy in addition to the same program of control group for two successive months. Both groups were subjected to the same evaluation procedure using hand held dynamomter , hand function abilities detected by sollerman scale and burn specific health scale brief (BSHS-B) for quality of life before and after treatment. Results: The results of this study showed non significance difference between pre and post treatment of the control and study groups but a significant difference between the result after treatment than before treatment in control and study group itself. Conclusion: Intensive hand therapy have good impact with near traditional physical therapy program in thermal 2 nd degree burned children.
Key words	1.	Intensive hand therapy
	2.	Hand function
	3.	Burn
	4.	Burned Children
Classification number	:	000.000.
Pagination	:	98 p.
Arabic Title Page	:	تأثير العلاج المكثف لليد على جودة الحياة وأداء اليد المصابة بالحرق عند الأطفال.
Library register number	:	4919-4920.

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Author	:	Mohamed Mahmoud Sayed Abo El Wafa
Title	:	Response of ventilated infants to chest physiotherapy pre-&post cardiac thoracotomy
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Khaled Ahmed Olama
	2.	Amira Esmat El-Tantawy
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of the current study was to investigate the effects of chest physiotherapy program pre-closed heart thoracotomy surgery on the prevention and/or reduction of postoperative pulmonary complications in pediatric cardiac surgical intensive care unit (PCSICU). Subject: Thirty infants of both sexes (15 males and 15 females) in the pre- and immediate postoperative period following cardiac surgery in Cardio-Pulmonary intensive care unit (ICU) with age ranged from 1 month to 12 months were included in the study. They were classified into two groups of equal number (control group A and study group B which were matched in age, sex, severity and complexity). Methods: Both groups were assessed in their first day postoperative for arterial blood gases (PH, PaCO₂, PaO₂, and SaO₂), peripheral oxygen saturation by pulse oximetry (SPO₂), heart rate and respiratory rate. Control group (A) received medical treatment in addition to traditional postoperative respiratory care in form of (humidification, vibration and suctioning). Study group (B) also received the same as in control group in addition to special chest physical therapy program which included modified posture drainage, percussion, specialized breathing techniques, and assisted cough techniques. The treatment program was conducted for 3 days pre-operative and 10 successive days postoperative. Each session was applied for 30 minutes, 2 times daily thus offering total physiotherapy program of one hour daily. Results: The post treatment findings of the current study at the end of treatment revealed that there was less hypoxemia in the study group than control group. By comparing pre to post treatment, in the study group the deterioration and pulmonary complications degree was lower than the control group Conclusion: Complimentary pre-operative chest physiotherapy program was very effective in preventing or at least minimizing the incidence of postoperative pulmonary complications. Consequently chest physiotherapy program was considered as an integral part of the pre- and postoperative management for infants with closed heart thoracotomy in pediatric care unit.</p>		
Key words	1.	Pre-operative Chest Physiotherapy
	2.	Closed Heart Surgery
	3.	Thoracotomy
	4.	ventilated infants
	5.	cardiac thoracotomy
Classification number	:	000.000.
Pagination	:	106 p.
Arabic Title Page	:	العلاج الطبيعي التنفسي وتأثيره على الأطفال الرضع قبل وبعد جراحات القلب المفتوح.
Library register number	:	5003-5004.

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

Author	:	Mohammed Hany Taher
Title	:	Effect of virtual reality on Balance in spastic hemiparetic children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Emam Hassan El Negamy
	2.	Tarek El Said Omar
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: This study aims to investigate the effect of the virtual reality on the balance (static and dynamic) in spastic hemiparetic children. Subjects and methods: Thirty spastic hemiparetic school aged cerebral palsy children of both sexes were randomly selected from Elraml children hospital -Alexandria, and divided into two groups a control group and a study one, both groups received same duration of a physical therapy program for three successive months, while only the study group received as a plus X-box kinect sessions (as a virtual reality modality). Evaluation was done before and after three months of treatment using the pediatric balance scale. Results: The results showed that percentage of improvement in the Control group is approximately 4.54%, While in the Study group there is approximately 7.32% which indicating that both groups had a significant improvement with a higher significance in favor of the study group. Conclusion: From the obtained results of this study supported by the relevant literature it may be concluded that the use of virtual reality can be helpful as an additional modality for improving the balance in spastic hemiparetic children.</p>		
Key words	1.	Spastic hemiparetic
	2.	Balance
	3.	virtual reality.
	4.	Pediatric balance Scale
	5.	children
Classification number	:	000.000.
Pagination	:	102 p.
Arabic Title Page	:	تأثير استخدام الحقيقة المفتعلة علي الاتزان لدي الأطفال المصابين بالفالج الشقي .
Library register number	:	4669-4670.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Molham Abd-Elfattah Mohamed Fayed
Title	:	Strength Training Program and Its Effect on Pulmonary Functions In Children With Down's Syndrome
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham El Sayed Salem
	2.	Ehab Ragaa Abdel Raouf
	3.	Zeinab Ahmed Hussein
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of this study was to determine the effect of specific strength training program for knees and ankles muscles on ventilatory functions in children with Down syndrome. The study was conducted on 30 children of both sexes (6 girls, 24 boys) with down's syndrome who were selected from National Institute for Motor Rehabilitation. Their ages ranged from 9 to 14 years. They were divided into two equal groups (control and study group). Children in control group (A) received chest physiotherapy program while children in study group (B) received the same chest physiotherapy program in addition to strength training program to knees and ankles muscles by using universal exercise unit. The treatment program was conducted at National Institute for Motor Rehabilitation for 3 times per week for 3 successive months. Both groups were evaluated by (Zan- 680) ergospirometry which assess ventilatory functions (FVC, FEV₁, FEV₁/FVC, MVV) pre and post application of treatment in Mataria teaching Hospital. The pre treatment results of this study showed that there were no significant differences in all measured ventilatory parameters (FVC, FEV₁, FEV₁/FVC ratio, MVV) among both groups of children. Upon comparing the pre and post treatment results of the present study for both groups, significant differences were recorded within and between groups in the measured ventilatory functions, significant improvement was recorded in certain ventilatory functions (FVC) in study group. Significant improvements were recorded in other ventilatory functions (FVC, FEV₁, FEV₁/FVC, MVV) in favor of control group. The post treatment results of both groups revealed that there were significant improvements in the measured ventilatory functions (FEV₁, MVV) in favor of control group. So it was concluded that a specific strength training program for lower extremities muscles has no significant effect on ventilatory functions.</p>		
Key words	1.	Down syndrome
	2.	Strength training
	3.	Chest physiotherapy
	4.	Pulmonary Functions
	5.	Children
Classification number	:	000.000.
Pagination	:	128 p.
Arabic Title Page	:	تأثير برنامج تقوية علي وظائف الجهاز التنفسي لدي الأطفال المصابين بمتلازمة داون.
Library register number	:	4687-4688.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Nagham Mohamed Kamal Khalil
Title	:	Constraint Induced Movement Therapy and Real-World Arm Use in Children with Hemiparesis
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hebatallah Mohamed Kamal
	2.	Hassan El- Barbary
	3.	Asmaa Osama Sayed
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Constraint Induced Movement therapy is a rehabilitative technique used in physical rehabilitation that restrains the sound arm to improve the functional ability of the affected upper extremity. This study was conducted to explain the effect of constraint induced movement therapy on functional use of spastic arm in hemiparetic cerebral palsied children. The study was conducted on thirty children with spastic hemiparesis of both sexes (seventeen boys and thirteen girls); their age ranged between 2 to 6 years old. They were classified randomly into two equal groups (A & B). Group (A): received constraint induced movement therapy in addition to selected occupational therapy and selected physical therapy for 3 months, every day with session duration two hours. Group (B): received only traditional occupational therapy, session duration two hours. Assessment of real-world arm movement (reaching and grasping) was done by pediatric motor activity log-revised (PMAL-R) before and after 3 months of treatment. The results of the study revealed statistically significant improvement in real-world arm movement in favor to group (A), regarding to hand dominance and weight bearing. We can conclude that constraint induced movement therapy in addition to occupational therapy and selected physical therapy improved real-world arm movement in spastic hemiparetic cerebral palsied children.</p>		
Key words	1.	Cerebral palsy
	2.	Hemiparesis
	3.	Spasticity
	4.	Movement Therapy
	5.	Children
	6.	Real-World Arm
Classification number	:	000.000.
Pagination	:	106 p.
Arabic Title Page	:	العلاج المبني على القيد الحركي وحركات الذراع الحياتية عند الأطفال المصابين بالخلل النصفي.
Library register number	:	4729-4730.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Nesma El Sayed Mohamed Barakat
Title	:	Effect of Supra-Malleolar Orthoses on Dynamic Balance in Children with Down Syndrome
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira Mohamed Eltohamy
	2.	Nagwa Abd El-Meguid Mohamed
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Purpose: to study the effect of supramalleolar orthoses on dynamic balance in children with Down syndrome in addition to study the effect of orthoses on balance in both gender and study correlation between height of the children and balance with orthoses. Method Thirty Down syndrome children (15 boys - 15 girls) their age ranged from 5 to 8 years participated in this study. They were selected from the National Research Center (clinic of special needs) and from National Institute Of Neuromuscular System in Imbaba . A biodex balance system was used for measuring dynamic balance parameters (Overall stability index-Antero-posterior stability index-Medio-lateral stability index) to all children barefoot and with supramalleolar orthoses. Results: There was a significant difference in all stability indices with supramalleolar orthoses, on the other hand There was no significant difference in all stability indices between girls and boys with orthoses in addition to no correlation between height of the children and stability indices with orthoses. It can be concluded that supramalleola rorthoses was helpful in dynamic balance control.</p>		
Key words	1.	Dynamic Balance
	2.	Supra-malleolar orthoses
	3.	Down syndrome
	4.	Children
Classification number	:	000.000.
Pagination	:	80 p.
Arabic Title Page	:	تأثير جبيرة فوق العظمة المطرقية على التوازن الديناميكي في الأطفال الذين يعانون من متلازمة داون.
Library register number	:	4647-4648.

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

Author	:	Omnia Mohammed Ibrahim Mahmoud
Title	:	Assessment of Functional Capacity in Children and Adolescents Following Tetralogy of Fallot Repair
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham Elsayed Salem
	2.	Gehan Hussein Ahmed,
	3.	Nanees Essam Mohamed
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: More attention directed to long-term follow-up of residual disease, exercise performance and health-related quality of life (QOL) in Tetralogy of Fallot (TOF) with the steady decline in mortality rates after surgical correction. The purposes of this study were to assess the functional capacity in young children following the repair of TOF, to assess the influence of different variables related to the surgical repair on exercise testing and finally to evaluate the health related quality of life outcome for those patients, also to detect its correlation with their exercise performance. Subjects and Methods: This study was conducted on 30 children (22 boys and 8 girls) operated on for TOF compared to 30 healthy age matched control children. The patients mean age at time of the study was 12.4 ± 2.71 years (range 8–18 years). Patients were subjected to cardiac magnetic resonance image (CMRI) examination, treadmill exercise testing according to Bruce protocol and the pediatric QOL inventory both child and parent forms. Results: No statistical significant difference between study and control regarding their exercise capacity. Non-significant correlations were observed between exercise performance and either CMRI variables or variables related to surgery, while the pediatric QOL Inventory (PedsQL) for both child and parent forms showed a statistically significant difference with $p=0.002$ and 0.0001 respectively. Significant correlations were observed between PedsQL and exercise performance indices maximum oxygen consumption and maximum heart rate where ($r=0.435$, $p=0.016$) and ($r=0.477$, $p=0.008$) respectively. Conclusion: Exercise tolerance in young patients after total correction of TOF is generally good irrespective of the age at surgery, follow up duration since surgery and all CMRI findings, despite that decrease in their QOL was observed with preserved physical health and reported problems in the psychosocial health.</p>		
Key words	1.	Tetralogy of Fallot
	2.	exercise testing
	3.	Quality of life.
	4.	Functional Capacity
	5.	Children
	6.	Adolescents
Classification number	:	000.000.
Pagination	:	109 p.
Arabic Title Page	:	تقييم القدرات الوظيفية لدى الأطفال والمرهقين بعد إصلاح رباعية فالوت
Library register number	:	5037-5038.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Omnya Samy Abd-Allh Ghoname
Title	:	Influence of platform swing walkway on gait pattern in children with spastic diplegia
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El Sayed Shoukry
	2.	Shora Yousef Mostafa
	3.	Zeinab Ahmed Hussein Abo-Saleh
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of this study was to determine the effect of platform swing walkway on gait pattern in children with spastic diplegia. Thirty children with spastic diplegia were selected from both sexes (15 males, 15 females) of chronological age from 3 to 6 years participated in this study. They were randomly classified into two equal groups (control group and study group). The control group (A) received traditional training program whereas study group (B) received the traditional training program (stretching exercises, strength training, and standing exercises) in addition to gait training on platform swing walkway. All children were assessed before and after the treatment program by using 2D video based gait assessment system to measure joint angles of lower extremities during gait cycle and the percentage of swing and stance phase, also GMFm was used to assess standing and walking, running, and jumping abilities, domains. The results of this study revealed statistically significant improvement in the measured variables in favor for study group. From the obtained results of this study, it can be concluded that gait training on platform swing walkway would improve functional gross and gait pattern in children with spastic diplegia.</p>		
Key words	1.	Cerebral palsy
	2.	Spastic diplegia
	3.	Platform swing walkway
	4.	children
	5.	gait pattern
Classification number	:	
Pagination	:	X,220,4 p. 137
Arabic Title Page	:	تأثير المنصة المتأرجحة علي أنموذج المشي عند الأطفال المصابين بالشلل المزودج التشنجي.
Library register number	:	4871-4872.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Osama Yassin Abas Morsy
Title	:	Registry of Cerebral Palsy in Minia Governorate (Banny-Mazr)
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abd El Azeim
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Patient registry is an organized documented system to collect uniformed data that evaluate specified outcomes for population defined by a particular disease that serves a predetermined scientific, clinical, or policy purposes. Aim; this study was conducted to establish data base for cerebral palsy (CP) in Bani-Mazar, Al-Minia Governorate. Subjects and Methods: children with CP who are receiving physical therapy services of both genders, ranged in age from 3 months to 12 years in Ministry of Health, Insurance hospitals, units of family medicine in villages and all private centers of physical therapy in Bani-Mazar city were involved in this study there number were 200 case. The outcome measures were Gross Motor Measurement Scale (GMMS), Gross Motor Function Classification System (GMFCS) from birth to 12 years, Manual Ability Classification System (MACS) and Viking Speech Scale. Results: Within the study participants, 72.5% are spastic type, 16% are dyskinetic, 7% are ataxic and 4.5% are hypotonic. Percentage of CP based on GMFCS were; 9.5% for level I, 25% for level II, 31.5% for level III, 18.5% for level IV, and 15.5% for level V. (GMMS) was used to determine score performance for each participant. According to MACS and Viking speech scale high incidences of children with CP were classified at level III. Conclusion: The current study revealed that CP children who are receiving physical therapy; incidence of spastic type is the major while hypotonic is the least prevalence. High incidences of children with CP were classified level III in GMFCS, MACS and Viking speech scale. The results revealed that more than 2/3 of children with CP are actively ambulant, functional and able to communicate.</p>		
Key words	1.	Registry of Cerebral Palsy
	2.	Cerebral palsy
	3.	physical therapy.
	4.	Minia Governorate (Banny-Mazr)
Classification number	:	000.000.
Pagination	:	104 p.
Arabic Title Page	:	تسجيل مرضى الشلل الدماغي في محافظة المنيا (بنى مزار).
Library register number	:	4935-4936.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Riham Mohamed Reda Mahmoud
Title	:	Effect of aerobic exercises on behavior in children with Hemiparesis
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hebatallah Mohamed Kamal
	2.	Kamelia Saad Abd Elhamid
	3.	Amira Mahmoud Abd- El Monem
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Motor impairment can affect behavioral expressions of children with CP, especially during the preschool years. Subjects: Thirty hemiparetic children with age ranged from 3.5 to 5 years participated in this study. They were selected from the outpatient clinic of Faculty of Physical Therapy, Cairo University and Matera Teaching Hospital. They were randomly divided into two groups of equal numbers (control and study).Methods: All children in both groups were assessed by Child behavior check list (CBCL1.5-5years) and six minute walking test before and after three months of treatment. The control group received a traditional physical therapy session, while the study group received aerobic exercise in the form of a special protocol of treadmill training for 30 minutes in addition to the same traditional physical therapy given to the control group. Results: The results of this study revealed significant improvement when comparing measured variables pre and post treatment results. A significant improvement was observed in behavior of the study group when comparing post treatment with the control group. On the basis of this study it can be concluded that treadmill training can be used as an additional effective tool in improving behavioral and functional disorders in children with hemiparesis.</p>		
Key words	1.	Hemiparesis
	2.	Behavioral disorders
	3.	Aerobic Exercises
	4.	children
Classification number	:	000.000.
Pagination	:	110 p.
Arabic Title Page	:	تأثير التمرينات الهوائية علي سلوك الأطفال المصابين بالفالج الشقي.
Library register number	:	4653-4654.

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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Sara Samir Mohamed Ali
Title	:	Effect of strength training on hand function in children with hemiparesis
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abd El-Aziem
	2.	Mohamed Abdel Moneim Al Sobky
Degree	:	Master.
Year	:	2016.
Abstract	:	<p>Objective: this study aimed to evaluate the effect of upper extremity repetitive strengthening exercises on upper extremity function in hemiparetic children. Design: Randomized clinical trial. Subjects: Thirty children (17 boys and 13 girls) with hemiparetic cerebral palsy whose age ranged from four to six years participated in this study. They were classified randomly into two groups of equal number; control group (fifteen children: ten boys, five girls) who received a designed physical therapy program which consists of neurodevelopmental techniques and study group (fifteen children: seven boys, eight girls) who received the same designed physical therapy program given to the control group in addition to the repetitive strengthening exercises for the affected upper limb. Methods: Isometric strength of the affected upper extremity using Lafayette hand held dynamometer and quality of upper extremity skills test were measured from both control and study groups before and after ten weeks of treatment. Results: A significant improvement was recorded in the measured variables in the study group when comparing their pre and post treatment mean values of muscle strength and QUEST scores. Conclusion: From the obtained results of this study, it could be concluded that repetitive strengthening program is beneficial to improve upper extremity function and specially grasp function in hemiparetic cerebral palsied children.</p>
Key words	1.	Strength exercises
	2.	Hand function
	3.	Cerebral palsy
	4.	Hemiparetic
	5.	QUEST
	6.	Dynamometer
	7.	Children
Classification number	:	000.000.
Pagination	:	124 P.
Arabic Title Page	:	تأثير تدريبات التقوية علي وظائف اليد في الاطفال المصابين بالفالج الشقي.
Library register number	:	5147-5148.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Wael Mohamed Ahmed Hassan Nasr
Title	:	Efficacy of Virtual Reality-Based Therapy on Balance in Children with Hemiparetic Cerebral Palsy
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Elham El Sayed Salem
	2.	Amira Esmat Eltantawy
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>Background: Virtual reality (VR) is a new technology that creates a video game system that relies on three dimensional movements to cue real-time responses within the software; it is also named as Wii therapy. Objectives: this study was to evaluate the effect of virtual reality on improving balance in hemiparetic cerebral palsied children. Materials and methods: Forty spastic hemiparetic cerebral palsied children age ranged from five to seven years participated in this study. They were classified randomly into two groups of equal numbers, control and study groups. Biodex balance system (BBS) used to evaluate balance in the two groups before and after three successive months of application of the treatment programs. The control group received a selected physical therapy program. The study group received the same selected physical therapy program given to the control group in addition to virtual reality (Wii therapy). Results: The results of the pre-treatment revealed no significant difference in all measuring variables between the two groups. In comparing the pre and post-treatment results for the control and study groups' revealed significant improvement in all variables. Post treatment significant improvement was recorded in balance of the study group. Conclusion: It was conclude that the selected Wii therapy had a significant effect in improving the balance of the hemiparetic cerebral palsy children participated in this study</p>		
Key words	1.	Virtual Reality
	2.	Balance
	3.	Hemiparetic Cerebral Palsy
	4.	Balance
	5.	Children
Classification number	:	000.000.
Pagination	:	85 P.
Arabic Title Page	:	تأثير العلاج بالواقع الافتراضي على الاتزان عند الأطفال المصابين بالشلل النصفي التشنجي.
Library register number	:	4717-4718.

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
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DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY ADEL ABD EL SALAM
NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Walaa Ibrahim Mohammed
Title	:	Assessment Of Balance And Bilateral Co-ordination In Children With Autism Spectrum Disorders
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira Mohamed ElTohamy
	2.	Nanees Essam Mohamed
Degree	:	Master.
Year	:	2016.
Abstract	:	
<p>The purpose of this study was to evaluate the balance and bilateral coordination skills of schooler children with autism pectrum disorders using a Modified Balance Evaluation Systems Test (MBEStest) and Bruininks-Oseretsky Test of Motor Proficiency, Second Edition (Bot-2) to determine the presence and degree of delay in their balance and bilateral coordination skills and to compare with normally developed children. Subjects and procedures twenty two autism spectrum disorders children of both sexes were selected to participate in this study group (B) and were compared to sixty normally developed children of both sexes (group A). children ages in both groups ranged between 6 to 10 years. Children in the ASD group (B) had mild autistic features according to the Childhood Autism Rating Scale (CARS). They had a score ranged between 25 to 35 according to CARS scale. Balance and Bilateral coordination skills were assessed for both groups. Each child in both groups was examined individually. Results: the results of this study revealed a statistically significant difference in the measurement of both Balance and Bilateral co-ordination when compared that between both groups. In Conclusion from the obtained results of this study, it can be concluded that children with autism spectrum disorders had developmental delays in their balance and bilateral coordination skills in comparison to normally developed children.</p>		
Key words	1.	Autism pectrum disorders
	2.	Balance
	3.	children.
	4.	Bilateral coordination skills
	5.	Children
Classification number	:	000.000.
Pagination	:	171 P.
Arabic Title Page	:	تقييم الاتزان والتوافق الحركى بين طرفى الجسم عند الأطفال المصابين بالذاتوية
Library register number	:	4673-4674.