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

Master Degree

2018

Author	**:**	**Ahmed Ali Zahr-Eldin**
Title	**:**	**Effect of Kinesio Taping on Hand Function in Children with Spastic Hemiparetic Cerebral Palsy**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Elham El-Sayed Salem**
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Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Objective: To determine the short term effect of Kinesio Taping on hand functions especially grasp in the preschool and primary school aged children with spastic hemiparetic cerebral palsy. Materials and Methods: Eleven spastic hemiparetic cerebral palsied children (aged 2 to 7 years old), selected from Physiotherapy outpatient clinics of the Faculty of Physical Therapy, Cairo University; of both sexes (5 males and 6 females) participated in the study. Kinesio Tape was applied to all participants for a period of five days, with the tape being applied to the wrist and thumb of the involved hand. Additionally, during this period, all participants received the conventional physical therapy, with sessions lasting for 45 minutes each, and repeated three times a week. Moreover, occupational therapy programs were implemented in tandem with the aforementioned sessions, with biweekly sessions lasting 30 minutes each. Lastly, at the end of the five days treatment period, the tape was removed, and the skin was left to rest for two days. All children were evaluated before tape application and after four weeks of intervention after tape removal; using the Grasping subtests of both Quality of Upper Extremity Skills Test (QUEST) and Peabody Developmental Motor Scale-2 (PDMS-2). Results: After four weeks of intervention results showed that no significant changes post treatment when compared with corresponding pretreatment for the PDMS-2 (P value = 0.096) and QUEST (P value = 0.052) scores.
Conclusion: These results suggested that application of Kinesio Tape for four weeks was not effective in improving the hand functions of spastic hemiparetic cerebral palsy children..

Key words	**1.**	**Cerebral palsy.**
	2.	**Hand functions.**
	3.	**Grasp.**
	4.	**Hemiparesis.**
	5.	**Kinesio Taping.**
	6.	**Children with Cerebral Palsy**
Classification number	**:**	**000.000.**
Pagination	**:**	**145 p.**
Arabic Title Page	**:**	**تأثير استخدام شريط الكينزو اللاصق على وظائف اليد في أطفال الخذل النصفي.**
Library register number	**:**	**5829-5830.**

Author	**:**	**Ahmed Magdy Ahmed Salah.**
Title	**:**	**Effect Of Aquatic Therpay On Motor Function In Children With Cerebral Palsy: Systematic Review.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Gehan Mosaad Abd Elmaksoud**
	2.	**Asmaa Osama Sayed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: A systematic review is the application of scientific strategies that limit bias by the systematic assembly, critical appraisal and synthesis of all available studies on a specific topic. Purpose of this review was to determine the effectiveness of aquatic therapy on motor function in children with cerebral palsy. Subjects: Spastic cerebral palsied children with all severities ranging in age from two to eighteen years were represented in this study. Design: A search of electronic databases that included PubMed, Physical therapy Evidence Database, Google scholar and Cochrane was conducted between August 2005 and November 2016. Results: Eleven articles that were retrieved met the inclusion criteria. Meta-analysis for three studies as they were randomized controlled trials and descriptive analysis for the other eight ones as they were non randomized controlled trials. Conclusion: From reviewing clinical data of recent studies, there is a strong evidence of the effectiveness of aquatic therapy on motor function of children with cerebral palsy.		
Key words	**1.**	**Aquatic therapy.**
	2.	**Cerebral Palsy.**
	3.	**Walking, Gait**
	4.	**Hydrotherapy.**
	5.	**Motor functions.**
	6.	**Children With Cerebral Palsy.**
	7.	**Systematic Review.**
Classification number	**:**	**000.000.**
Pagination	**:**	**76 p.**
Arabic Title Page	**:**	**: تأثير العلاج المائي علي الوظائف الحركية للأطفال المصابين بالشلل الدماغي فحص منهجي**
Library register number	**:**	**6095-6096.**

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
NERVEENABD EL SALAM ABD EL KADER AHMED

Author	**:**	**Ahmed Mohamed HegazyShakshouk**
Title	**:**	**Quality level of clinical record for pediatric physiotherapy in teaching hospital"audit tool".**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**HodaAbd El-Azim El-Talawy**
	2.	**Faten Hassan Abdelazeim**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Documentation is the process of recording of all aspects of Patient care, management including the results of the initial examination, diagnosis, prognosis, plan of treatment, interventions, response to interventions, changes in Patient relative to the interventions, re-examination, and discharge. Aim of study the current study examined the quality level of clinical record and documentation of pediatric physiotherapy departments at teaching hospitals and institutes according to the criteria of the Physical Therapy Chartered Society Standards to determine points of documentation lacking and work on solving them to improve the quality of record and documentation in medical institutions. MaterialandMethods. This study was carried as Cross-sectional study at teaching hospitals and institutes for 310 patient record files which were selected randomly from Faculty of physical therapy outpatient clinic 100), The National Institute of Neuromotor system (100), Elmatarya Teaching Hospital (100) and Elsahel Teaching Hospital (10). Assessment of the quality of patient record files was carried out by using of the standardized patient record audit approved by the Chartered Society Standards. To describe, assess and report the quality of the working system.Results. There are statistically significant differences among the teaching hospitals and institute in the Assessment, Examination, Analysis, Implementation, Transfer of care discharge, Documentation and Patient record conform to the following requirements axes, however there is critical lacking in the axis of documentation of informed consent, evaluation and treatment planning. There is no information technology system for the patient record files at all teaching hospitals and institute. Conclusion using of the standardized patient record are not implemented in the included the Egyptian pediatric physical therapy departments at teaching hospitals and institute. There is no using of electronic medical records.

Key words	**1.**	**medical records**
	2.	**pediatric**
	3.	**Audit tool.**
	4.	**physical therapy documentation.**
	5.	**Quality level of clinical record.**
	6.	**Children-Quality of clinical record.**
Classification number	**:**	**000.000.**
Pagination	**:**	**87 p.**
Arabic Title Page	**:**	**تقييم مستوي الجودة للسجلات بأقسام العلاج الطبيعي للاطفال بالمستشفيات التعليمية " لاداة التدقيق".**
Library register number	**:**	**6177-6178.**

Author	**:**	**Amany Mohamed Hashem**
Title	**:**	**Use of amiel-tison neurlogical assessment test in prediction of cerebral palsy in infants and children: systematic review**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Zeinab Ahmed Hussien**
	2.	**Dalia Mohamed Mosad**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: preterm children are at a high risk for neurodevelopmental impairments, but there is variability in the pattern and severity of outcome. Prediction of outcome after preterm birth is critical, but remains difficult, particularly in the early postnatal period. The ability to predict outcome improves parental counseling and selection of infants for early therapeutic strategies aiming at preventing or ameliorating cerebral injury.Purpose: This systematic review is to evaluate the accuracy of Amiel-Tison neurological assessment test (ATNAT) in early diagnosis of cerebral palsy (CP) before one year in Infants with risks. Methods: All studies analyzed the prediction of ATNAT for CP in infants at risk, were searched through different search engines (MEDLINE (Pub-Med), Cochrane Register of Diagnostic Test Accuracy Studies, Google Scholar, Cinihal database, Science Direct, ProQuest, Journals @OVID, Pedrodatabases (from 1980 to July 2017) by 2 reviewer rom July 2017 to October. The selected studies (5 studies rom 269) were assessed for methodological quality by using the Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) Tool.Results: five out of 269 studies met the full inclusion criteria, including studies of ATNAT with general movements assessment (GMA), cranial ultrasound, brain magnetic resonance imaging (MRI), and neurological examination. Summary pooled estimated sensitivity at term were 71% (with confidence interval CI 61%-80%) and specificity 66% (CI 60%-71%); while its sensitivity at 3 months were 94 % (CI 86%-98%) and specificity 52% (CI 44%-60%). The ATNAT performed at 3 monthsappeared to be a strong predictor of neurological impairments and appeared to be a moderate predictor, at term Conclusion: This review found that Amiel-Tison is accurate test in diagnosis of neurological impairments when performed at 3 months.		
Key words	**1.**	**cerebral palsy**
	2.	**neurological impairment**
	3.	**Amiel-Tison neurological assessment test**
	4.	**Prediction**
	5.	**high risk infants**
	6.	**infants in cerebral palsy**
	7.	**Children in cerebral palsy**
	8.	**systematic review**
Classification number	**:**	**000.000.**
Pagination	**:**	**117 p.**
Arabic Title Page	**:**	**استخدام اختبار التقييم العصبي لايميل تايسون للتنبؤ بالشلل الدماغي في الرضع والأطفال: بحث مرجعيه**
Library register number	**:**	**5961-5962.**

Author	**:**	**Amr Mohamed Sabry Amer**
Title	**:**	**Efficacy of kinesiotaping on head control in post kernicterus children**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Faten Hassan Abdelazem**
	2.	**Hanan Galal Azoz**
	3.	**Amira El Sayed El-Bagalaty**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Participants and methods: Thirty post kernicterus children of both sexes were assigned into control and study group with fifteen children in each group, the children were selected from different pediatric rehabilitation centers in Alexandria with developmental age 2 months according to Denver Developmental Screening Scale and motor abilities score below 22 in dimension A lying and rolling according to Growth Motor Function Measurement Scale. Hypotonic child, congenital postural deformity, cervical and chest burn were excluded. All children were evaluated before and after 12 weeks of treatment program to improve head control using AUTOCAD for measuring neck extension angle, and Growth Motor Functional Measurement Scale for measuring motor abilities. The designed physical therapy program was applied for both groups with adding kinesiotape on neck muscles for the study group. cement ($p > 0.5$) and in the median values of GMFM between the control and study groups post treatment ($p \geq 0.5$) but there was an improvement in head angular displacement by 4.28% and in 0.4% in motor abilities. Conclusion: its concluded that statistically kinesiotape has no effect on improving head control in post kernicterus children but clinically observed a little change occur in percentage of improvement post treatment in head angular displacement and in motor abilities.

Key words	**1.**	**Kerincterus.**
	2.	**kinesio tape.**
	3.	**head control.**
	4.	**post kernicterus children**
	5.	**children - post kernicterus**
Classification number	**:**	**000.000.**
Pagination	**:**	**71 p.**
Arabic Title Page	**:**	**تأثير شريط كينيزيو اللاصق على التحكم بالرأس لدى الأطفال بعد الأصابة باليرقان.**
Library register number	**:**	**5799-5800.**

Author	**:**	**Asmaa Salah Ali Ahmed**
Title	**:**	**Establish Registry of Cerebral Palsy in Minia Governorate.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**GehanElmeniawy**
	2.	**Mona Nabil Mohamed Ayad**
	3.	**AmanyMousaMohamed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Aim: The current study was conducted to establish registry for physical therapy database of cerebral palsy (CP) patients in Mina governorate.Background: Children with CP were recruited from hospitals of health ministry (General hospitals), insurance hospitals, physical therapy centers, private hospitals and units of family medicine in Minia Governorate. Children were of both genders and their ages ranged from birth to eighteen years old. Materials: The outcome measures were Gross Motor Function Classification System (GMFCS), Gross motor function measure (GMFM) from birth to eighteen years, Manual Ability Classification System (MACS) and Viking Speech Scale(VSS). Results: The results revealed that the children with CP who received physical therapy services represented 87.4% and children who did not receive physical therapy services represented 12.6%.There were 49% positive consanguinity, 63.2% were living in rural areas and 76.3% presented by obstruction. Classification of CP based on GMFCS:4.7% for level I, 31.6% for level II ,37.2% for level III, 25.7% for level IV and 8% for level V. Viking Speech scale declared 32.8% for level I, 33.6% for level II, 19.8 % for level III and 13.8 % for level IV. The current study revealed that there were significant relation between GMFM, MACS, GMFCS, VSS and CP. Conclusion: The current study revealed that prevalence of CP in Minia governorate was 253 children representing 9 per 100000 live births. The spastic type 57.3% was the most common while dystonic type was the least 7.9%. Demography revealed that 60.5% of children were males and 38.5% were females, 36.8% of the cases were from urban areas and 63.2% were from rural areas.High incidences of children with CP were level III using GMFCS, MACS and level II using VSS.

Key words	**1.**	**Registry.**
	2.	**GMFCS.**
	3.	**MACS.**
	4.	**VSS**
	5.	**Cerebral Palsy.**
	6.	**Minia Governorate.**
Classification number	**:**	**000.000.**
Pagination	**:**	**98 p.**
Arabic Title Page	**:**	**تسجيل مرضى الشلل الدماغى في محافظة المنيا**
Library register number	**:**	**6075-6076.**

Author	**:**	**Asmaa Talaat Ramadan.**
Title	**:**	**Impact Of Physical Therapy Program Versus Foot Insole In Children With Flatfoot.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Emam Hassan El-Negmy**
	2.	**Mahmoud Ali Mahran**
	3.	**Amira Mahmoud Abd El-Monem**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: The medial longitudinal arch is very important in maintaining the foot posture and is the most important reference in determining the degree of pes planus and pes cavus. Aim: To compare between the impact of physical therapy program and foot insoles in children with flatfoot. Materials and methods: Thirty typically developing children with flexible flatfoot from both genders with age ranged from seven to twelve years participated in this study. They were allocated from governmental Egyptian schools. They were assigned randomly into two groups of equal numbers, exercise and insole groups. Children in the exercise group received a designed physical therapy program included therapeutic exercises and electrical stimulation for 90 minutes, three times/week for three successive months. Children in the insole group used Silicone insole, according to his/her foot size for six hours/six days accounting to the whole school days for three successive months. Navicular height, Staheli's arch index and radiological assessment were conducted before and after the suggested period of treatment. Results: Comparing pre-treatment mean values of the measured variables showed non-significant difference between the two groups. While, within group comparison revealed non-significant change in the insole group. On the other hand, significant improvement was recorded in the exercise group. Post treatment comparison between groups showed significant difference in all measured variables in the favor of the exercise group. Conclusion: Physical therapy program including exercises and electrical stimulation is effective in improving foot arch when it was compared with using foot insoles only in children with flatfoot.		
Key words	**1.**	**Flatfoot.**
	2.	**radiographic assessment of the foot**
	3.	**navicular height.**
	4.	**insoles.**
	5.	**foot print.**
	6.	**children with flatfoot.**
Classification number	**:**	**000.000.**
Pagination	**:**	**126 p.**
Arabic Title Page	**:**	**تأثير برنامج العلاج الطبيعي مقابل جبيرة قوس القدم لحالات تسطح القدم لدى الأطفال.**
Library register number	**:**	**6059-6060.**

Author	**:**	**Dina Kamal Mohamed Ismail**
Title	**:**	**Assessment of Functional Ability and Quality of Life in Children with Thalassemia**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Assist. Prof. Dr. Zeinab Ahmed Hussein**
	2.	**Prof. Dr. Mona Hassan El-Tagui**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

The purpose of this study was to assess the functional ability, pain, muscle strength and quality of life in children with β-thalassemia major. Sixty children with β-thalassemia major (28 boys and 32 girls) represented the thalassemia group and 60 healthy age-matched children (35 boys and 25 girls) represented the control group. They were participated in a cross-sectional study. The children in the thalassemia group were recruited from the out -patient clinic of "Abo El-Rish pediatric Hospital – Cairo University Hospitals". While the healthy children were recruited from the primary schools. Their ages ranged from 2 to 12 years. Both groups were stratified into three age subgroups; 2 – 4 years, 5 – 7 years, and 8 – 12 years. Each child of both groups was evaluated for pain by using VAS, handgrip strength by using the hand held dynamometer, functional ability and quality of life by using the Pediatric Quality of Life (PedsQL)™ 4.0 generic core scale. Results: The collected data was processed and statistically analyzed using *t*-test. The results showed that children with β-thalassemia major demonstrated higher scores of pain and lower scores of handgrip strength and functional ability, which associated with poorer quality of life when compared with the healthy age-matched children. Conclusion: Thalassemia as a chronic disease has a negative impact on pain, muscle strength, functional ability and quality of life in terms of physical, emotional, social and school functioning when compared with the healthy age-matched children.

Key words	**1.**	**Thalassemia.**
	2.	**Functional Ability.**
	3.	**Quality of Life**
	4.	**Pain.**
	5.	**Muscle Strength.**
Classification number	**:**	**000.000.**
Pagination	**:**	**153 p.**
Arabic Title Page	**:**	**تقييم القدرة الوظيفية وجودة الحياة لدي الأطفال المصابين بالثلاسيميا.**
Library register number	**:**	**5973-5974.**

Author	**:**	**Fatma Adel Abd-Elhalim.**
Title	**:**	**Effect Of Selected Physical Therapy Program On Quality Of Life And Endurance In Children With Chronic Kidney Disease.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohamed El-Tohamy.**
	2.	**Rasha Essam Eldin.**
	3.	**Amira Mahmoud Abd El-Monem.**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Aim: To investigate the effect of selected physical therapy program on quality of life and endurance in children with chronic kidney disease. Subjects and methods: Thirty-two children with stage 3 and 4 chronic kidney disease from both genders, age ranged from 8 to 12 years participated in this study. They were allocated randomly into two groups of equal numbers, control and study. Children in control group received regular medical treatment with no change of their regular daily activities. Those in the study group received selected physical therapy program of aerobic exercises in the form of treadmill training and strengthening exercises three days/week for three successive months. The Pediatric Quality of Life Inventory and six-minutes walking test were used to assess quality of life and endurance respectively. Results: The within group comparison mean values of the measured parameters of the control group showed no statistically significant change of the six-minutes walking test, but there was significant decrease in quality of life total score. On the other hand, there was significant improvement of all measured variables in the study group. Moreover, comparing the mean values between the two groups after three successive months revealed significant difference in favor of the study group. Conclusion: Selected physical therapy program contributed to the improvement of quality of life and endurance in children with chronic kidney disease.

Key words	**1.**	**Aerobic exercises.**
	2.	**Pediatric Quality of Life Inventory.**
	3.	**Strengthening exercises.**
	4.	**Chronic kidney disease.**
	5.	**Children With Chronic Kidney Disease.**
	6.	**End-stage kidney disease**
Classification number	**:**	**000.000.**
Pagination	**:**	**121 p.**
Arabic Title Page	**:**	**تأثيربرنامج مختار للعلاج الطبيعي على نوعية الحياة والقدرة على التحمل في الأطفال الذين يعانون من مرض الكلى المزمن.**
Library register number	**:**	**6085-6086.**

Author	**:**	**Eman Kamal Abd Elmotalb**
Title	**:**	**Effect of Multisensory Stimulation on Sensory Motor Behavior in High Risk Neonates**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Faten Hassan Abdelazeim**
	2.	**Mohamed Ali Elshafey**
	3.	**Nehad Abd EL-Salam Mohamed Nasef**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Introduction: Highrisk neonates admitted to the neonatal intensive care unit (NICU) are suffering from lack of sensory experiences which are vital for normal brain development, rather is exposed to excessive or inappropriately timed stimulation in the NICU that leads to deleterious effects on premature infants whose brains are immaturely developed. Objective: The aim of this study was to investigate the effect of multisensory stimulation program on sensory motor behaviour in high risk neonates. Subject and method: Forty high risk neonates were selected from neonatal intensive care unit of Mansoura New Central Hospital, Mansoura Insurance Hospital and Talkha Central Hospital with mean gestational age of 33±1.03 weeks according to new Ballard score, mean weight 1442 ± 228.5 gram. They were randomly allocated into control group and study group.The control group received routine medical and nursery care in the NICU while the study group received the same program in addition to multisensory stimulation program, both groups received the program daily for two successive weeks. The outcomes were measured before and after the intervention by Morgan Neonatal Neurobehavioral Examination and Brazelton neonatal behavioral assessment scale. Results: There was significant improvement in all measured variables in the study group after the intervention program ($p<0.05$) except in the state regulation and autonomic system, while there was no significant difference in all measured variables in the control group except in weight gain. Conclusions: Multisensory stimulation improved the sensory motor behavior in high risk neonates. It could be a vital part of the routine neonatal physiotherapy for preterm and high-risk neonates.

Key words	**1.**	**Multisensory Stimulation**
	2.	**Highrisk Neonates**
	3.	**Early Neurobehavioral Intervention**
	4.	**Neonatal Intensive Care Unit**
	5.	**Sensory Motor Behavior.**
Classification number	**:**	**000.000.**
Pagination	**:**	**117 p.**
Arabic Title Page	**:**	**تأثير التنبيه الحسي المتعدد علي السلوك الحسي الحركيفي الخدج مرتفعي الخطورة.**
Library register number	**:**	**5925-5926.**

Author	**:**	**Esraa Abd El Aziz Anter**
Title	**:**	**Relationship Between Diffusion Tensor Imaging Findings And Clinical Features In Children With Cerebral Palsy**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohammed El-tohamy**
	2.	**Asmaa Osama Sayed**
	3.	**Rania HamdyHashem**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Objective: The study was conducted to evaluate and define the correlation betweendiffusion tensor imaging findings and clinical features in children with cerebral palsy. Subjects: seventeen cerebral palsy children of different types aged from four to 14 years participated in the study. They didn't have anymusculoskeletal contractures, didn't perform Botox injection in the last 6 months or surgical procedures in the last12months and didn't experienced head trauma as secondary episode. Methods:Children with cerebral palsy were recruited from physical therapy outpatient clinic Cairo University, abo-elreesh hospital and national institute for neuro-motor system. Each child was assessed using Modified Ashwarth Scale, Gross Motor Function Measure, Gross Motor Function classification system, Manual Ability Classification System and Viking speech scale. After physical therapy evaluation, children were sent to Qasr El-Aini for radiological examination. Results: There wasstatistically significant correlation between FA values of CST and spasticity grade measured with MAS and non-significant correlation between FA values and GMFM, GMFCS and MAC. Conclusion: from the results of this study it can be concluded that there is a correlation between DTI findings while no correlation exists between DTI findings and gross and fine motor abilities of cp children.		
Key words	**1.**	**Diffusion Tensor Imaging**
	2.	**Cerebral palsy**
	3.	**Children With Cerebral Palsy**
Classification number	**:**	**000.000.**
Pagination	**:**	**126 p.**
Arabic Title Page	**:**	**العلاقة بين نتائج التصوير بالانتشار التوتري والسمات السريرية لدى الاطفال المصابين بالشلل الدماغي.**
Library register number	**:**	**5957-5958.**

Author	**:**	**Esraa Abd El Mohsen Ali Abdallah**
Title	**:**	**Impact Of Kinesio Taping On Treatment Of Congenital Muscular Torticollis.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Gehan Hassan El-Meniawy.**
	2.	**Hesham Mohamed Anwar.**
	3.	**Zeinab Ahmed Hussein.**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

The purpose of this study was to determine the impact of Kinesio Tape on lateral flexion and rotation range of motion of neck in infants with congenital muscular torticollis. The study was conducted on thirty infants of both sexes (14 boys and 16 girls) having congenital muscular torticollis, their ages ranged from 1 to 6 months. They were selected from Abo- Elresh teaching hospital. The selected infants were classified randomly and equally into control& study groups. Infants in control group received a designed physical therapy program for muscular torticollis, while infants in study group received Kinesio taping in addition to the same exercise program given to control group. Kinesio taping was applied by using a relaxing technique on shortened sternocleidomastoid muscle and upper trapezius. The infants were evaluated using Muscle Function Scale and Arthrodial protractor before and after eight weeks of treatment program. The results revealed significant difference when comparing the post treatment mean values of lateral flexion and rotation of neck in both groups in favor of the study group. From the obtained results of this study it could be concluded that using Kinesio taping is beneficial in treatment procedure and had significant effect on improvement range of motion and muscle function of neck in infants with congenital muscular torticollis.

Key words	**1.**	**Infants muscular torticollis.**
	2.	**congenital muscular torticollis.**
	3.	**Kinesio Tape**
	4.	**range of motion.**
Classification number	**:**	**000.000.**
Pagination	**:**	**80 p.**
Arabic Title Page	**:**	**تأثير استخدام اللاصق الطبي في علاج حالات صعر العضلات الخلقي.**
Library register number	**:**	**6013-6014.**

Author	**:**	**Hadeer Abd Allah Abd El-Khalik**
Title	**:**	**Effect of Aerobic Exercises on Autistic Features in Children with Autism Spectrum Disorder**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**EmanIbrahem El-Hadidy**
	2.	**Samia Abdel Rahman Abdel Rahman**
	3.	**KamiliaSaad Abdel Hamid**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: Autism spectrum disorderis alife-long neuro-developmental conditioninterfering with the person's ability to communicate and relate to others.Objectives: To determine the effect of aerobic exercises on the autistic features in children with autism spectrum disorder andto determine if there is a relation between these autistic features and the functional capacity of such children. Methods: Thirty children with autism spectrum disorder aged from 5 to 8 years old were recruited from the pediatric clinic of Al-Mataria Teaching Hospital,Cairo. Their autism index ranged from mild to moderate according to Arabic version of Gilliam Autism Rating Scale. They were classified into two groups of equal number (Study group A and control group B). Both groups received speech therapy and omega-3 fatty acids while groupA received additional aerobic exercises in the form of walking on treadmill. Aerobic exercises were conducted three times/week for three successive months. Autistic features were assessed by Arabic version of Gilliam Autism Rating Scale before and after intervention while the functional capacity was assessed by the six-minute walk test before intervention.Results: There was a significant improvement in the autistic features after intervention in each group. There was a statistically significant difference in favor of the study group (A) after intervention regarding the stereotype behavior, social interaction and autism index but a non-significant difference regarding communication. Results revealed no relation between the autistic features and the functional capacity for all participated children. Conclusion: Aerobic exercisesmay improve the autistic features seen in children with autism spectrum disorder.		
Key words	**1.**	**Autism Spectrum Disorder.**
	2.	**Aerobic Exercise.**
	3.	**Functional capacity.**
	4.	**Children with Autistic features.**
	5.	**Autistic features.**
Classification number	**:**	**000.000.**
Pagination	**:**	**99 p.**
Arabic Title Page	**:**	**تأثير التمرينات الهوائية علي سمات التوحد في الأطفال المصابين بالتوحد.**
Library register number	**:**	**6069-6070.**

Author	**:**	**Hadeer Mohamed Mohamed.**
Title	**:**	**Establish Registry of Cerebral Palsy in Suez Governorate.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Elham El-Sayed Salem**
	2.	**Amany Mousa Mohamed**
	3.	**Mona Nabil Mohamed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Aim: The current study was conducted to establish registry for physical therapy data base of cerebral palsy (CP) patients in Suez governorate. Subjects: 140 children with CP were selected from general hospital of health's ministry, insurance hospital, five physical therapy centers and two units of family medicine in Suez governorate. Children were selected from both genders and their ages ranged from two months to eighteen years old. Materials: the outcome measures were Gross motor function classification system (GMFCS), Gross motor function measure (GMFM) in addition to Manual Ability Classification System (MACS) and Viking speech scale. Results: The results of the current study revealed that children with CP who received physical therapy services were 89.3% and children who did not receive physical therapy services were 10.7%. Results of classification of CP children based on GMFCS were 8.6 % for level I, 9.3% for level II, 16.4 % for level III, 12.9% for level IV, and 52.9 % for level V .On the other hand results of Viking speech scale showed, 10% for level I , 10% for level II ,17.1% for level III and 15.7% for level IV. Conclusion: The prevalence of CP in Suez governorate is 5 for each 10000 live births. Incidence of spastic type of CP is the major (85%), while ataxic type showed the least prevalence (2.1%). Demography revealed that 62.9% were boys and 37.1% were girls. High incidences of children with CP were level V in GMFCS, and level III in MACS and Viking speech scale		
Key words	**1.**	**Registry in Suez Governorate**
	2.	**Measurement.**
	3.	**Manual Ability Classification System.**
	4.	**Viking Speech Scale.**
	5.	**Gross Motor Function Classification System**
	6.	**Cerebral Palsy in Suez Governorate**
	7.	**Suez Governorate**
	8.	**Gross Motor Function.**
Classification number	**:**	**000.000.**
Pagination	**:**	**109 p.**
Arabic Title Page	**:**	**تسجيل مرضى الشلل الدماغي في محافظه السويس.**
Library register number	**:**	**6113-6114.**

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Author	**:**	**Khadiga Ahmed Mohamed**
Title	**:**	**The Effect of Rebound Therapy on Sitting in Children With Cerebral Palsy.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Hebatallah Mohamed Kamal**
	2.	**Ahmed Mahmoud Kholeif.**
	3.	**WalaaAbd El-HakiemAbd El- Nabie**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: Sitting is an essential step to achieve upright position and posture background. Cerebral palsy children have poor trunk control and trunk muscles weakness, that contribute to delayed sitting position. Purpose: This study was conducted to examine the effect of rebound therapy on sitting milestone in children with hemiplegic cerebral palsy. Material and methods: Forty children with spastic hemiplegic cerebral palsy, of both sexes, their ages ranged from 6 months to 12 months, were randomly assigned into two equal groups: control and study group. Control group received traditional physical therapy program to all problems include sitting milestone, and study group received rebound therapy exercises to facilitate sitting in addition to the program of the control group. The Gross Motor Function Measure was used to evaluate the sitting in both groups before and after three months of treatment.Results:The results showed significant difference in some items of Gross Motor Function Measure before and after treatment in both groups (control and study group) (B18, B19, B20, B23, B29, B30, B31, B32 and B34), while there was no significant difference in another items in both groups(B21, B22, B24, B25, B26, B27, B28, B33, B35, B36 and B37). Conclusion: The obtained results suggested that rebound therapy exercises may be beneficial in improving sitting in children with hemiplegic cerebral palsy		
Key words	**1.**	**Hemiplegi**
	2.	**Sitting.**
	3.	**Hemiplegia.**
	4.	**Sitting.**
	5.	**Rebound Therapy**
	6.	**Rebound Therapy on Sitting.**
	7.	**Children With Cerebral Palsy.**
	8.	**Cerebral Palsy.**
Classification number	**:**	**000.000.**
Pagination	**:**	**75 p.**
Arabic Title Page	**:**	
Library register number	**:**	**6079-6080.**

Author	**:**	**Maha Ahmed Attia Mahmoud**
Title	**:**	**Effect of High Intensity Walking Exercise on Muscle Fatigue and Postural Control in Children with Hemiplegia**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohamed El-Tohamy**
	2.	**Walaa Abd-Elhakiem Abd-Elnabie**
	3.	**Marwa Elsayed Ahmed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Objective: Postural control and muscle fatigue are one of the elementary causes of deteriorations in children with hemiplegic cerebral palsy. The purpose of this study was to investigate the effect of high intensity walking exercise on muscle fatigue and postural control in children with hemiplegic cerebral palsy. Patients and methods: Thirty hemiplegic children of both sexes (17 boys and 13 girls) participated in this study with their mean ± SD ages, weights, and heights were 8.25 ± 1.77 years, 26.83 ± 5.77 kg, and 118.13 ± 7.45 cm respectively. They were selected at level I and II according to Gross Motor Function Classification System (GMFCS) and the degree of spasticity ranged from 1 to 1^{+} according to Modified Ashworth Scale. Muscle fatigue of quadriceps and hamstring muscles were assessed by using isokinetic dynamometer while postural control was assessed by using pediatric reaching test before and after high intensity walking exercise. Results: The results showed that there were no significant differences in the fatigue index and peak torque of quadriceps and hamstring muscles (p = 0.33, p = 0.1) and (p = 0.52, p = 0.14) respectively, also no significant differences were found in the anterior and lateral reaching of postural control (p = 0.46 and p = 0.63) respectively between pre and post high intensity walking exercise. Conclusion: High intensity walking exercise is tolerated and doesn't cause muscle fatigue or postural instability in children with hemiplegia. It may be helpful in the evaluation and treatment procedures for children with cerebral palsy.

Key words	**1.**	**Hemiplegia.**
	2.	**Muscle fatigue.**
	3.	**Postural control**
	4.	**High intensity walking exercise**
	5.	**Children with Hemiplegia**
Classification number	**:**	**000.000.**
Pagination	**:**	**100 p.**
Arabic Title Page	**:**	**تأثير تمرينات المشي ذات الشده العالية على الإجهاد العضلى وسيطرة القوام لدى الأطفال المصابين بفالج نصفى.**
Library register number	**:**	**5877-5878.**

Author	**:**	**Marina Nabil Samaan**
Title	**:**	**Effect of Prolonged Smartphone Use on Cervical Spine and Hand Grip Strength in Adolescence**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Emam Hassan Elnegmy**
	2.	**Amena Salem Hendawy**
	3.	**Ahmed Mohamed El Nahhas**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: smartphones have become a necessity for most children as they are used for communication and entertainment purposes. they spend most of their time in smart phones using. This has side effects on their health. Purpose: to assess the effect of prolonged smartphones use on cervical spine and hand grip strength in adolescent children who use it more than four hours per day. Methods: 60 normal subjects with ages ranged from 14 to 18 years and divided into two groups of equal number (group A, group B): group A is a control group who uses smartphone less than four hours per day. Group B is a study group who uses smartphone more than four hours per day. Using electromyography machine to investigate nerve conduction velocity of ulnar and median nerves universal goniometer was used to measure forward head angle, Visual Analogue Scale was used to assess the neck pain and hand dynamometer was used to measure hand grip strength for subjects of both groups. Results: within groups comparison, showed significant difference in conduction velocity of ulnar nerve, forward head angle and Visual Analog Scale while showed no significant difference in conduction velocity of median nerve and hand grip strength between the two group. Conclusion: Prolonged use of smartphones in adolescence decrease conduction velocity of ulnar nerve, lead to increased forward head position angle and neck pain, without effect on handgrip strength and conduction velocity of median nerve.

Key words	**1.**	**Smartphone**
	2.	**cervical spine**
	3.	**hand grip Strength,**
	4.	**Adolescence.**
Classification number	**:**	**000.000.**
Pagination	**:**	**81 p.**
Arabic Title Page	**:**	**تأثير استخدام الهاتف الذكي لفترات طويلة على الفقرات العنقية وقوة قبضة اليد في مرحلة المراهقة.**
Library register number	**:**	**6067-6068.**

Author	**:**	**Mayada Fathy Mohammed Farag**
Title	**:**	**Effect of Aerobic Exercise on Testosterone Level in Obese Boys.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Eman Ibrahim El-Hadidy**
	2.	**Zeinab Ahmed Hussein**
	3.	**Sahar Abd El-Aziz Khairy**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Childhood obesity has become a major health concern in recent decades, the relationship between obesity and testosterone level is one of the longest running controversies in medical field. Objective: it was to determine the effect of aerobic exercise on testosterone level in obese boys. Methods: Thirty boys participated in this study, their ages ranged from eight to twelve years old with body mass index percentile greater than 95%. The participated children were assigned randomly into two equal groups control group and study group. Boys in control group received only balanced diet regimen for weight loss for twelve successive weeks while boys in study group received aerobic exercise in the form of treadmill training for 50 min, 3 days/ week in addition to the same balanced diet regimen for twelve successive weeks. Weight, height, body mass index percentile, waist circumference, total and free testosterone were evaluated before and after twelve weeks of treatment for both groups. Results: pre-treatment mean values of all measuring variables showed no significant differences between both groups. Post treatment results revealed significant differences in waist circumference and free testosterone between both groups in favor of the study group. Conclusion: Aerobic exercise in form of treadmill training with balanced diet increase free testosterone level and decrease waist circumference after twelve weeks in obese boys.

Key words	**1.**	**Childhood obesity.**
	2.	**waist circumference.**
	3.	**Testosterone.**
	4.	**body mass index percentile**
	5.	**aerobic exercise on Testosterone Level.**
	6.	**Obese Boys.**
Classification number	**:**	**000.000.**
Pagination	**:**	**111 p.**
Arabic Title Page	**:**	**تأثيرالتمرينات الهوائية علي مستوى هرمون التستستيرون لدى الأطفال الذكور الذين يعانون السمنة.**
Library register number	**:**	**5739-5740.**

Author	**:**	**Mena Nasef Nageeb Mekhael.**
Title	**:**	**Physical Therapy Registry for Establishment of Cerebral Palsy in Kafrelsheikh City, Kafrelsheikh Governorate**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Samia Abdel Rahman Abdel Rahman**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Back ground: Cerebral palsy is one of the most common causes of childhood physical disabilities. The prevalence rate of cerebral palsy in developing countries is high. Purposes : To establish a registry of cerebral palsy in Kafrelsheikh city in Kafrelsheikh Governorate. Subjects and Material and Procedures: One hundred fifty eight children with cerebral palsy receiving physical therapy services of both genders participated in this study. Their ages ranged from one month to 18 years. They were recruited from outpatient clinic,Faculty of Physical Therapy ,Kafrelsheikh University, two public hospitals, and six private centers in Kafrelsheikh city. Modified Australian Registry Form was used for registry. This study was conducted from 1st of February 2016 up to 30th of December 2016. Results: Within study population, the results revealed that the prevalence of cerebral palsy children who received physical therapy services was 0.88/1000 live birth in Kafrelsheikh. Boys represented 38.6% and girls represented 61.4% from total cases. The percentage of cerebral palsy types was 82.3% spastic, 5% hypotonic, 7.6% dyskintic and 10.1% ataxic type of cerebral palsy. According to Gross Motor Function Classification System, level 4 and 5 have the highest percentages. According to Manual Ability Classification Scale, level 4 and 5 have the highest percentages. Conclusion: Prevalence of cerebral palsy in Kafrelsheikh city is high. Spastic type has the highest frequency and spastic quadriplegia and diaplegia is the most common types.

Key words	**1.**	**Cerebral Palsy.**
	2.	**Manual Ability Classification Scale.**
	3.	**Australian Registry Form**
	4.	**Kafrelsheikh.**
	5.	**Prevalence.**
	6.	**Registry of Cerebral Palsy in Kafrelsheikh**
	7.	**Gross Motor Function Classification System**
Classification number	**:**	**000.000.**
Pagination	**:**	**107 p.**
Arabic Title Page	**:**	**إنشاء أنموذج قاعده بيانات العلاج الطبيعي لمرضي الشلل المخي بمدينة كفر الشيخ بمحافظة كفر الشيخ.**
Library register number	**:**	**5913-5914.**

Author	**:**	**Mohamed Hamed Mohamed Agramia**
Title	**:**	**Establish Registry of Cerebral Palsy in Port Said Governorate/**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Samia Abdel Rahman Abdel Rahman**
	2.	**Amany Muosa Mohamed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: The prevalence of cerebral palsy in developing country is high. It is one of the most common causes of childhood physical disability. Purpose: To establish a registry of cerebral palsy in Port Said Governorate-Egypt. Subjects and Methods: One hundred twenty children with cerebral palsy of both genders who were receiving physical therapy in Port Said Governorate participated in the study. Their ages ranged from one month to 18 years. They were recruited from three public hospitals and four private centers in Port Said Governorate. They were subjected to confidential modified Australian Registry Form. This study was conducted from December 2017 up to March 2018. Results: The findings revealed that the prevalence of CP children was 3/10000 live births. Boys represented 69.2% and girls represented 30.8% from total cases. The percentage of the types of cerebral palsy was about 91.6% spastic, 6.7% hypotonic and 1.7% dyskintic cerebral palsy. According to Gross Motor Function Classification System; level V has the highest percentage. According to Manual Ability Classification Scale and Viking Speech Scale, level II has the highest percentage. Conclusion: Prevalence of cerebral palsy in Port Said Governorate is low. Spastic type of cerebral palsy has the highest frequency.		
Key words	**1.**	**Prevalence.**
	2.	**Registry Form.**
	3.	**Manual Ability Classification Scale.**
	4.	**Viking Speech Scale**
	5.	**Gross Motor Function Classification System.**
	6.	**Cerebral Palsy.**
	7.	**Port Said Governorate.**
	8.	**Registry in Port Said.**
	9.	**Modified Australian.**
Classification number	**:**	**000.000.**
Pagination	**:**	**98 p.**
Arabic Title Page	**:**	**تسجيل مرضى الشلل الدماغي في محافظة بورسعيد.**
Library register number	**:**	**6091-6092.**

Author	**:**	**Mohamed Salah El-SayedAwad**
Title	**:**	**Effect of rhythmic auditory stimulation on motor proficiency in children with autism**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**SamahAttia El Shemy**
	2.	**FekryHasan El Etr**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Objective: This study aimed to investigate the effect of rhythmic auditory stimulation on motor proficiency in children with autism. Methods: A total of 30 autistic children aged 8–10 years with mild to moderate autistic features participated in this study. They were randomly allocated to either the control group (n=15), which received a specially designed physical therapy program, or the study group (n=15), which received the same program in addition to gait training with rhythmic auditory stimulation. To provide rhythmic auditory stimulation, combination of a metronome beat set to the child's cadence and rhythmic cueing from the musical instrument digital interface Cubase musical program was used. Both groups received 3 sessions per week for 3 successive months. The Bruininks-Oseretsky Test of Motor Proficiency 2nd Edition was used to assess the motor skills before and after 3 months of intervention including running speed and agility, bilateral coordination, balance, upper limb coordination, and strength subtests. Results: There were significant improvements in all measured variables both groups after treatment. Moreover, comparing the post-treatment results of the two groups revealed significant improvement in favor of the study group. Conclusion: Gait training with rhythmic auditory stimulation elicited a positive effect on motor proficiency of children with autism.

Key words	**1.**	**Rhythmic auditory stimulation**
	2.	**motor proficiency**
	3.	**Autism**
	4.	**children with autism**
Classification number	**:**	**000.000.**
Pagination	**:**	**119 p.**
Arabic Title Page	**:**	**تأثير التنبيه السمعي المنتظم على الكفاءة الحركية عند أطفال التوحد.**
Library register number	**:**	**5939-5940.**

Author	**:**	**Mohannd Mohsen Madboly Elsayed.**
Title	**:**	**Knee Cage versus Long Ankle Foot Orthosis for Genu Recurvatum in Children with Spastic Diaplegia.**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Khaled A. Olama.**
	2.	**Hamada El-Sayed Ayoub.**
	3.	**Rania Hamdy Hachim.**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Children with cerebral palsy of spastic diaplegia develop knee recurvatum in both lower limbs. Orthotic management can help in controlling the recurvatum as knee cage or ankle foot orthoses. Purpose: To compare the effect of posterior knee cage and long Ankle Foot Orthosis in the management of genu recurvatum in children with spastic diaplegia. Methods: Thirty children with spastic diaplegia having knee recurvatum in both limbs enrolled in the study, their ages ranged between four to eight years. They were divided randomly into two equal groups; Group (A) received a Designed physical therapy program while wearing long ankle foot orthoses for three months. Group (B) received a Designed physical therapy program while wearing knee cage for three months. Stress X- ray was used to evaluate the degree of recurvatum pre and post study. Results: There was no statistically significant difference between both groups regarding right knee recurvatum while there was a statistically significant difference between both groups regarding the left knee recurvatum in favor to Ankle Foot Orthosis. Conclusion: From the obtained results it can be concluded that long ankle foot orthoses achieve more improvement of the degree of knee recurvatum when compared with knee cage in cases, but these improvement were statistically non-significant and need further investigations.

Key words	**1.**	**Cerebral palsy.**
	2.	**Diaplegia.**
	3.	**Recurvatum.**
	4.	**Long Ankle Foot Orthosis.**
	5.	**Knee Cage.**
	6.	**Children with Spastic Diaplegia.**
	7.	**Stress X ray.**
Classification number	**:**	**000.000.**
Pagination	**:**	**90 p.**
Arabic Title Page	**:**	**جبيرة قفص الركب ة مقابل جبيرة القدم في الإنحناء الخلفي للركبة عند الأطفال المصابين بالشلل التقلصي المزدوج.**
Library register number	**:**	**6135-6136.**

Author	**:**	**Naglaa Abdelhaleem Sayed**
Title	**:**	**Effect Of Virtual Reality On Children With Impaired Coordination: Systematic Review**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Manal Salah El DienAbd El wahab**
	2.	**Shorouk Ahmed Wagdi Elshennawy,**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: The use of virtual reality systems in children with impaired coordination is promising, and thus the scientific evidence for its efficiency needs to be evaluated through a systematic review. Objective: To systematically examine the effect of virtual reality (VR) in children with impaired coordination. Methods: Design is systematic review of randomized trials. Search was conducted via PubMed, , Cochrane, Web of Science ,Science Direct and Google Scholar. Search was limited to studies with RCT design, children with neurodevelopmental disorders and acquired brain injuries (ABIs), comparisons of VR with other interventions, and movement-related outcomes. The Physiotherapy Evidence Database (PEDro) scale was used to evaluate the study quality. The Modified Sacket scale was used to assess the level of evidence. Results: The search identified 13 studies with low to high methodological quality and strong evidence when evaluated by Modified Sacket scale. Conclusion: Virtual reality-based rehabilitation when compared with other interventions is practicable , safe, and has potential as an effective treatment modality for improving motor function in children with an impaired coordination.		
Key words	**1.**	**Children With Impaired Coordination.**
	2.	**Systematic review**
	3.	**Coordination.**
	4.	**Virtual reality.**
Classification number	**:**	**000.000.**
Pagination	**:**	**78 p.**
Arabic Title Page	**:**	**تأثير الواقع الافتراضي علي الأطفال الذين يعانون علي من ضعف التوافق العضلي العصبي: فحص منهجي.**
Library register number	**:**	**5811-5812.**

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
NERVEENABD EL SALAM ABD EL KADER AHMED

Author	**:**	**Neveen Nabil Hassan**
Title	**:**	**Effect of Aerobic training on functional capacity on children with cerebral Palsy**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Manal Salah El Dein Abd Elwahab**
	2.	**Gehan Mosaad Abd Elmaksoud**
	3.	**Khaled Sobhy Eid**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Gait improvement is one of the most important goals of physical therapy program in cases of cerebral palsy (CP) because as much as 90% of those children have difficulty in walking. Purpose: this study was conducted to investigate the effect of aerobic gait training on pulmonary functions and functional capacity in children with CP. Subjects and Methods: Thirty children diagnosed with hemiparetic CP participated in this study. They were selected from outpatient clinic of Faculty of Physical Therapy, Cairo University and Abo El – Reesh pediatrics hospital with age range between 5 and 9 years. The selected sample was divided into two groups of equal number. Control group (Group A) that was treated by traditional gait training while study group (Group B) received aerobic gait training. All participants were evaluated by Six minute walk test for detecting the functional capacity and impulse oscillometry device that was used for detecting pulmonary functions (R5) before and after three successive months of treatment application. Results: There was a statistically significant improvement of all measured variables in each group after treatment and also between both groups after treatment in favor to the study group ($p<0.05$). Conclusion: It was concluded that the aerobic gait training improve the functional capacity and pulmonary functions in children with hemiplegic CP.

Key words	**1.**	**Aerobic gait training-**
	2.	**Cerebral palsy.**
	3.	**Functional capacity**
	4.	**children with cerebral Palsy**
	5.	**Pulmonary functions.**
Classification number	**:**	**000.000.**
Pagination	**:**	**89 p.**
Arabic Title Page	**:**	
Library register number	**:**	**6187-6188.**

Author	**:**	**Osama Ali Hamed**
Title	**:**	**Effect of Physical Therapy Management on Range of Motion of Mandible After Closed Reduction of Mandibular Fractures in Adolescent**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Hebatallah Mohamed Kamal**
	2.	**Wael Mohamed Said Ahmed,**
	3.	**Rami Mahmoud Gharib**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Back ground: Limitation of mandibular range of motion after closed reduction interferes with jaw functions and restricts patient's functions. Purpose: To investigate the effect of physical therapy on limitation of mandibular range of motion post closed reduction of mandibular fractured in adolescents. Subjects: Twenty adolescent male patients who had limitation of mandible range of motion post mandibular closed reduction and internal fixation, their ages ranged from 13-18 years old and selected from out-patient clinic of Oral and Maxillofacial Surgery Department , Faculty of Dentistry, Mansoura University. They were randomly classified into two groups of equal number (control (A) and study (B)) Procedures: The control group (A) received classic dental management (non-steroidal anti-inflammatory drugs, home routine program , soft diet and advices about oral hygiene) with follow up monthly while the study group (B) received physical therapy program (therapeutic exercises, manual therapy and home routine program) in addition to dental management program of the control group. Results: The results revealed statistically significant improvement in range of motion in study group compared to the control group. Conclusion: Physical therapy is an effective strategy in treating the limitation of mandible range of motion after maxillo-mandibular fixation in adolescents.		
Key words	**1.**	**Physical Therapy.**
	2.	**Closed Reduction.**
	3.	**Mandible.**
	4.	**Fractures.**
	5.	**Adolescent**
	6.	**Range of Motion**
Classification number	**:**	**000.000.**
Pagination	**:**	**78 p.**
Arabic Title Page	**:**	**تأثير العلاج الطبيعي على حصر المدى الحركي لكسور الفك السفلي عند المراهقين**
Library register number	**:**	**5947-5948.**

Author	**:**	**Randa Mahmoud Abd-ELfattah**
Title	**:**	**Effect of Different Sitting Conditions on Abdominal muscle thickness in School age children**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Amira Mohamed El-Tohamy**
	2.	**Engyshawky EL-Kayal**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: The Transverse abdominal muscle has considered to have a protective role during activity that challenges the integrity of the lumbar spine. The purpose of this study was to investigate ultrasonographyically determined changes in the thicknesses of the transverses abdominal and internal oblique muscles during different sitting conditions. Subjects and procedures: Thirty normally developed children with age ranged from 8-10 years participated in this study. Muscle thicknesses of transverses abdominal and internal oblique muscles were assessed by the musculoskeletal ultrasonography in four different sitting conditions including (a) sitting, (b) sitting with abdominal hollowing maneuver (AHM), (c) sitting with left hip flexion, and (d) sitting with AHM and left hip flexion. Results:Transverses abdominal and internal oblique muscle thicknesses were significantly differntamonge sitting conditionsthere was a significant difference in TR on the right and left sides in different sitting conditions. And there was no significant difference in the IO muscle on the right and left side in different sitting conditions. In comparison between right and left sides in the sitting and AHM condition there was no significant different in the TR and IO. But in the condition of left hip flexion and AHM combined with left hip flexion, there was asignificant difference in the IO muscle and no significant difference in the TR. .In conclusion:It can be concluded that the condition of sitting with AHM and left hip flexion, should be chosen for maximal activation of deep abdominal muscles.

Key words	**1.**	**Ultrasonography**
	2.	**Deep abdominal muscles**
	3.	**Sitting conditions**
	4.	**Abdominal hollowing**
	5.	**children in School age.**
	6.	**School age children.**
Classification number	**:**	**000.000.**
Pagination	**:**	**76 p.**
Arabic Title Page	**:**	**تأثير حالات الجلوس المختلفة علي سماكة عضلات البطن في الأطفال في سن المدرسة.**
Library register number	**:**	**6123-6124.**

Author	**:**	**Sally Ashraf Mohamed Asker**
Title	**:**	**Effect of Maternal Exercise Program on Fetus Growth and Neonatal Maturity in Preeclampsia/**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Faten Hassan Abdelazeim**
	2.	**Naglaa Ahmed Zaky**
	3.	**AlaaWagehOsman**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Preeclampsia affects 2% to 8% of all pregnancies globally and the condition is estimated to account for 10% to 15% of maternal deaths worldwide. Preterm birth accounts for 15% of preelcampsic disorders. Preelcampsic associated morbidities and mortality can also lead to intrauterine growth restriction and death .Aim of the study: This study was designed to assess the effect of maternal exercise program on fetal growth and neonatal maturity in preeclampsia.Subjects and Methods: Thirty pregnant women suffered from preeclampsia, were selected from inpatient clinic of Mansoura University Hospitals; their pregnancies ages was 27thweek of gestation. The participants were randomly assigned into two groups (control and study). Participants in control group received antihypertensive medication under supervision of the obstetrician and in the study group received a designed maternal exercise program in addition to medication for control group. Outcome measures were fetal growth and neonatal maturity which measured by 2D-ultrasound and new Ballard scores respectively. Results: The post treatment results of measured variables; fetal growth, Apgar score, birth weight and neonatal maturity showed significant improvement in study group compared with control group.Conclusion: Maternal exercise program improved fetal growth and neonatal maturity in preeclampsia in study group compared with control group.

Key words	**1.**	**Preeclampsia**
	2.	**Fetal growth**
	3.	**Maternal exercise**
	4.	**Neonatal maturity**
Classification number	**:**	**000.000.**
Pagination	**:**	**127 p.**
Arabic Title Page	**:**	**تأثير برنامج تمرينات للنساء المصابات بمرض ما قبل تسمم الحمل علي نمو الجنين ونضج حديثي الولادة.**
Library register number	**:**	**5927-5928.**

Author	**:**	**Salwa Fouad Bayioumy Ibraheim**
Title	**:**	**Effect Of Aerobic Exercise Versus Calcium Supplementation On Serum Calcium Level In Hypocalcemic Children**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Elham El Sayed Salem**
	2.	**.Shorouk Elshennawy**
	3.	**Sahar Abd El Gliel Mohamed**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Hypocalcemia is the presence of low serum calcium levels in the blood. Normal blood calcium level is between 8.5 to 10.5 mg/dL in children. Calcium is the most important abundant mineral in the body which is important for growth of bones, teeth and skeleton.Purpose: this study was conducted to compare the effect of aerobic exercise and calcium supplementation on serum calcium level in hypocalcemic children. Subjects: were assigned on 36 hypocalcemic children of both sexes, divided into two groups, eighteen in each group. Their ages ranged from 24-42 months. Their serum calcium level was below 6.5mg/dl & had delay in walking milstone matched with level I GMFCS.Study was conducted in out patient clinic for pediatrics in Helwan general hospital.Materials and Methods: Serum free total calcium & gross motor function measure (88) score of standing and walking domains were measured for all children before and after 12 weeks of intervention. Study Group (A): were participated in aerobic exercise program in a form of bicycle ergometer training program 3 times /week for 12weeks in addition to balanced daily diet calcium supplement and sun exposure. Control group (B): were treated with calcium supplementation in a form of calcium carbonate which was given teaspoonful once time daily in addition to balanced daily diet of calcium supplement and sun exposure.Result: Non significant difference in gross motor function measure (88) scoreing of standing and serum calcium level was recorded but there was significant increase in gross motor function measure (88) scoreing of walking in group (A) compared with group (B).Conclusion: this study concluded that aerobic exercise has a beneficial effect on walking ability in children with hypocalcemia.

Key words	**1.**	**Hypocalcemia.**
	2.	**calcium supplementation**
	3.	**Serum Calcium Level.**
	4.	**Hypocalcemic Children**
	5.	**aerobic exercise on Hypocalcemic Children.**
	6.	**Children - Hypocalcemic**
Classification number	**:**	**000.000.**
Pagination	**:**	**93 p.**
Arabic Title Page	**:**	**المقارنة بين تأثير التمارين الهوائية مقابل العلاج بالكالسيوم على مستوى الكالسيوم في الدم لدى الأطفال المصابين بنقص الكالسيوم .**
Library register number	**:**	**5777-5778.**

Author	**:**	**Samar Taher Elbasuony Elbanna**
Title	**:**	**Transcranial Direct Current Stimulation for Rehabilitation of Motor Disorders in Children with Cerebral Palsy: (Systematic Review)**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Shorouk Ahmed Wagdi Elshennawy**
	2.	**Mona Nabil Mohamed Ayad**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	
Background: Trans-cranial Direct Current stimulation (tDCS) is a non-invasive therapeutic resource used to treat children with cerebral palsy in which the motor cortex is stimulated using a low-intensity (1–2 mA), direct, electrical current through surface electrodes Objective: To provide updated evidence for tDCS effects on rehabilitation of functional motor skills of children with cerebral palsy. Data sources: Ovid, Cochrane, Science direct, Web of science, EPSCOhost, Pub Med and Google scholar website were searched from their earliest records up to August 2017. Data extraction: Template was created to systematically code the demographic, methodological, and miscellaneous variables of each randomized control trail (RCT). The Physiotherapy Evidence Database (PEDro) scale was used to evaluate the study quality. A level of evidence was assigned to each study according to Levels of evidence (adapted from Sackett). Data synthesis: Nine randomized control trails were included with 192 participants in total. Best evidence synthesis was applied to summarize the outcomes, which were balance, gait parameters, spasticity and upper limb function. Conclusions: The available data demonstrated moderate evidence supporting the effectiveness of tDCS as a modality in rehabilitation of motor disorders in children with cerebral palsy with immediate and long term effect.		
Key words	**1.**	**Trans-cranial Direct Current Stimulation.**
	2.	**Rehabilitation.**
	3.	**Cerebral Palsy.**
	4.	**Systematic review.**
	5.	**Children with Cerebral Palsy.**
	6.	**Motor Disorders.**
Classification number	**:**	**000.000.**
Pagination	**:**	**86 p.**
Arabic Title Page	**:**	**استخدام التيار المباشر لتنبيه خلايا المخ في تـأهيل الاضطرابات الحركية في الأطفال المصابين بالشلل الدماغي (بحث منهجي).**
Library register number	**:**	**5915-5916.**

Author	**:**	**Walid Saber Hussain Morsi**
Title	**:**	**Upsee Mobility Versus Partial Body Weight Support Training On Gait 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.	**Naglaa Ahmed Zaky Aly**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Background: Cerebral Palsy (CP) is a collection of motor disorders resulting from damage to brain that occurs before, during, or after birth. Diplegia is the most common form of spastic CP. A white matter infarct in the periventricular areas caused by hypoxia can lead to spastic diplegic CP. The Upsee is a new approach that may enable the child to achieve an upright position and mobile weight bearing through their lower limbs. Partial body weight support treadmill training (BWSTT) is one method used in neurological rehabilitation of children that provides task-specific gait training with multiple repetitions. The purpose: Was to determine the difference between the effect of Upsee and partial body weight support treadmill training on gait pattern in children with spastic diplegia. Subjects: Forty-five spastic diplegic children of both sexes participated in this study, they were divided randomly into three equal groups (group A, group B and group C). Materials: The children in the group A received the traditional physical therapy program for diplegic children in addition to gait training program for thirty minutes, three times per week for three months. Children in group B received the same physical therapy program in addition to the Upsee training. Children in group C received the same traditional program in addition to BWSTT. Methods: Three groups were evaluated before and after the treatment programs by Tracker Video Analysis and Modeling Tool. Results: The results revealed that there was statistically significant improvements in hip and knee joints angles pre and post treatment at different measuring periods during gait cycle subphases in three groups in favor to group B than other groups. Conclusion: Using of Upsee mobility device is more effective than partial body weight with treadmill training in improving kinematics of the gait in children with spastic diplegic cerebral palsy.

Key words	**1.**	**Diplegic Cerebral Palsy.**
	2.	**Gait.**
	3.	**BWSTT**
	4.	**Upsee mobility device.**
	5.	**Partial Body Weight.**
	6.	**Children with Spastic Diplegia.**
Classification number	**:**	**000.000.**
Pagination	**:**	**143 p.**
Arabic Title Page	**:**	**الحركة باستخدام جهاز اب سي مقارنة بتقليل الوزن الجزئي على المشي في الأطفال المصابين بالشلل التقلصى المزدوج.**
Library register number	**:**	**5871-5872.**

Author	**:**	**Aya Ebrahim Mahmoud Elkomy.**
Title	**:**	**The Effect of Acute Lymphoblastic Leukemia and Chemotherapy on Balance in Children**
Dept.	**:**	**Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.**
Supervisors	**1.**	**Khaled Ahmed Olama**
	2.	**Hamada Elsayed Ayoub,**
	3.	**Hossam Eldeen Ahmed El Ashtokhy**
Degree	**:**	**Master.**
Year	**:**	**2018.**
Abstract	**:**	

Introduction: Acute lymphoblastic leukemia is considered the most common form of malignancy in children with percentage of 29% of all childhood cancer, Chemotherapy is considered the first line of treatment in oncology despite its resulting side effects like peripheral neuropathy and problems involving cognition and behavior. Objectives: Assessment of the effect of acute lymphoblastic leukemia and chemotherapy on balance in children. Patients and Methods: this study was carried out on fifty children with acute lymphoblastic leukemia with ages varies from 5 to 11 years , they were selected from Tanta cancer center , they were divided according to the stage of treatment to three groups, group A : it includes ten children who were diagnosed by acute lymphoblastic leukemia, but before having any treatment , group B: it includes twenty children in the maintenance phase of treatment and group C: it includes twenty children in their first year of follow up , Humac balance system was used for balance assessment through three tests: the modified clinical test of sensory integration of balance , the limit of stability test and center of pressure test, and their measurements were compared to normal children matching in age and gender. Results: the results had shown no significant difference in the tests measurements of the acute lymphoblastic leukemic children when compared to normal children. Conclusion : there is no effect of the acute lymphoblastic leukemia or chemotherapy on balance in children .

Key words	**1.**	**Acute lymphoblastic leukemia.**
	2.	**Balance.**
	3.	**Humac balance system.**
	4.	**Chemotherapy.**
	5.	**Acute Lymphoblastic Leukemia.**
	6.	**Children - Chemotherapy on Balance.**
Classification number	**:**	**000.000.**
Pagination	**:**	**97 p.**
Arabic Title Page	**:**	**تأثير سرطان الدم الليمفاوى الحاد والعلاج الكيماوي على الإتزان فى الأطفال.**
Library register number	**:**	**6165-6166.**