

**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

Doctoral Degree
2018

Author	:	Emad Abdelmaboud Mahmoud
Title	:	Validity of Clinical Assessment Measures of Static Foot Posture in Children
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Hoda Abdelazim El-Talawy
	2.	Faten Hassan Abdelazim
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Although reliability of clinical measures of static foot posture has been widely debated, validity of these measures has not been fully established especially in paediatric population. Clinicians are in need for a valid, accurate, easily used, noninvasive, safe and cost effective measure to evaluate static foot posture clinically. Objectives: To investigate validity and diagnostic accuracy of three clinical measures of static foot posture (foot posture index-6, Clarke's angle, Normalized truncated navicular height) in children and adolescents using radiographic measures as the gold standard measure. Methods: A cross-sectional descriptive study had been conducted on a sample of 612 participants aged 6-18 years (12.36 ±3.39). Clinical assessment of static foot posture using Clarke's angle, foot posture index-6 and normalized truncated navicular height was compared to the gold standard radiographic measures and displayed on the receiver operating characteristics curve. Intra-rater reliability was investigated using intraclass correlation coefficient. Sensitivity, specificity, predictive values, likelihood ratios were calculated for the studied clinical measures. Results: Clarke's angle demonstrated the highest intra-rater reliability (ICC=0.99), followed by NTNH (ICC= 0.97) and FPI-6 (ICC=0.96). CA was the most sensitive (98.4%) and specific (98.8%) measure and demonstrated the highest positive predictive value (97.3), negative predictive value (99.3), positive likelihood ratio (84) and the lowest negative likelihood ratio (0.02) among the studied clinical measures. Conclusion: Clarke's angle is the most valid, reliable and diagnostically accurate clinical measure of static foot posture in children followed by normalized truncated navicular height and Foot posture index-6.</p>		
Key words	1.	Validity.
	2.	Foot posture index-6.
	3.	Normalized truncated navicular height.
	4.	X-ray.
	5.	Static foot posture.
	6.	Children - Foot posture.
	7.	Clarke's angle.
Classification number	:	000.000.
Pagination	:	123 p.
Arabic Title Page	:	مصداقية التقييم الاكلينيكي لقوام القدم الساكن عند الاطفال.
Library register number	:	5867-5868.

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Author	:	Enas Hamdy Aly Elnady.
Title	:	Efficacy of seat surface inclination on postural control during reaching in sitting position in children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abdelazium
	2.	Mostafa El-Sherbini
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>The purpose of this study to evaluate the effect of seat surface inclination on postural control during reaching in sitting position in normal and hemiplegic children , Fifteen right spastic hemiplegic and fifteen normal typically developed children aged from 7-9 years were involved in the study ,The study was conducted in gait laboratory at National Institute of Neuro motor System , Methods: The participants were assessed during forward reaching in three conditions: sitting with the seat surface oriented horizontally, tilted 15 degrees forward and backward. Postural muscle activity were recorded using Delsys Wireless electromyography system in addition to modified paediatric functional reaching test to evaluate postural stability Results: Analysis of Variance and Unpaired T- test reveals that there is a significant difference of postural muscle activity and postural stability in terms of Modified paediatric functional reaching test among three conditions in and between the two groups respectively , Post hoc test indicated that forward inclined seat surface has least postural activity and more postural stability Conclusions: In spastic hemiplegic cerebral palsy and typically developed children , forward inclined seat surface is best position as it is associated with least postural muscle activity and more postural stability during forward reaching</p>		
Key words	1.	Seat Inclination.
	2.	Reaching, Sitting, Electromyograms
	3.	Cerebral Palsy.
	4.	Postural Control.
	5.	children in sitting position.
Classification number	:	000.000.
Pagination	:	117 p.
Arabic Title Page	:	فاعلية ميل سطح القاعدة علي التحكم في الظهر أثناء الوصول في وضع الجلوس في الاطفال
Library register number	:	6151-6152.

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Author	:	Khlood Mohamed Salama Mohamed
Title	:	Impact of virtual reality on children with obesity
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira Mohamed El-Tohamy
	2.	Lobna M.Salah El-Hadidy
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Childhood obesity is a major phenomenon that has been dramatically spread in different countries. This prevalence draws the attention of researchers to engage new technology and virtual reality as a new tool to help in solving children obesity and increasing their activity instead of sedentary life style that help increase this problem. Purpose: The purpose of this study was to use virtual reality as a new treatment tool for children obesity. Methods: Eighty over weighted and obese children of both sexes were selected and their ages ranged from 15 to 18 years from both sexes BMI were 85% to 95% percentile and their body composition were measured by Bioelectrical Impedence (BIA) (inbody 120) from Nutrition Clinics to participate in this study: 40 children have been treated with diet and virtual reality (study group), and 40 children have been treated with diet only (control group) for four months</p> <p>Findings: T-test Comparison between groups post treatment revealed a significant decrease of weight, Body Mass Index (BMI), Percent of Body Fat (PBF), Waist Hip Ratio (WHR), Obesity Degree and Visceral Fat of study group compared with that of control group ($p < 0.05$) and a significant increase in Skeletal Muscle Mass (SMM), Basal Metabolic Rate (BMR) and Inbody Score of study group compared with that of control group ($p < 0.05$). Conclusion: According to the previous findings, it can be concluded that there was improvement on body composition, BMI, visceral fat, WHR, BMR and obesity degree of obese children and may be used for treatment of children obesity.</p>		
Key words	1.	Children obesity.
	2.	Low Calorie Diet,
	3.	Active Video Games
	4.	Virtual Reality.
	5.	children with obesity
	6.	Bioelectrical Impedence Analysis.
Classification number	:	000.000.
Pagination	:	140 p.
Arabic Title Page	:	تأثير الواقع الافتراضي على سمنة الأطفال.
Library register number	:	5801-5802.

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Author	:	Mai Abdelmohsen Ahmed Mahmoud
Title	:	Impact of different foot deformities on the inverted pendulum analogy in children with cerebral palsy
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Faten Hassan Abdelazeim
	2.	Ehab Anwar Mohamed
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>The aim of this study was to investigate the impact of selected four of gait deviations based on specific foot deformities; equinus, valgus, varus and dorsiflexion (DF) on efficiency of inverted six pendulum analogy in children with bilateral spastic cerebral palsy (CP). Methods: Fifty two typically developing children as a ambulant children with bilateral spastic CP and twenty control group (CG) participated in this study. Children with CP had any kind of the selected gait deviations. They were categorized according to kind of gait deviations based on foot problem into four groups; equinus group (n=23), valgus group (n=13), varus group (n=10) and DF group (n=10). Equinus group was categorized according to severity of equinus into two sub-groups. 3D gait analysis was conducted to measure the vertical displacement of center of mass (COM) for all children as well as spatial-temporal parameters. Results revealed a statistically significant increase of vertical displacement of COM in children with CP in the all groups compared to body mass index (BMI)-matched CG (P-value was 0.01108 and 0.00736 for two sub-groups of equinus PG, 0.00328 for valgus group, 0.00034 for varus group and 0.00086 for DF group). Moreover, no significant difference of COM displacement was found among groups and also no difference was detected between two sub-groups of equinus gait. Conclusion, the vertical COM displacement increased significantly in children with bilateral spastic CP with gait deviation based on foot deformity compared to BMI-matched CG regardless the kind of foot deformity.</p>		
Key words	1.	foot deformities
	2.	Cerebral Palsy
	3.	inverted pendulum
	4.	children with cerebral palsy
Classification number	:	000.000.
Pagination	:	87 p.
Arabic Title Page	:	تأثير تشوهات القدم المختلفة علي محاكاة البندول المقلوب لدي أطفال الشلل الدماغي.
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Author	:	Marian Mamdouh Fayez.
Title	:	Motor and cognitive assessment for preschool passive smoking Children in Cairo.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Amira M. El-Tohamy.
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Purpose To study the effect of passive smoking on 52:70 months children's motor and cognitive development. Subjects: One hundred apparent healthy volunteers' children of both sexes with age range from 52 to70 months were enrolled in the current study were classified into two groups Group I (passive smoker children) and Group II (non passive smoker children).Each group consisted of 50 children. Methods: Motor development was evaluated by Peabody developmental motor scale -2 and cognitive development was evaluated by Wechsler Preschool and Primary Scale of Intelligence (WPPSI) for both groups of children of smokers` and non smokers` parents. Results: There was a statistical significant difference of Wechsler Preschool And Primary Scale Of Intelligence and Peabody developmental motor scale -2 was recorded except object manipulation and stationary for Group I (children of smokers` parents) . Conclusion: Passive smoking has effects on motor and cognitive development in preschool passive smoking children.</p>		
Key words	1.	motor development.
	2.	Peabody scale.
	3.	cognitive development.
	4.	passive smoking.
	5.	Children - passive smoking in Cairo.
	6.	WPPSI
Classification number	:	000.000.
Pagination	:	166 p.
Arabic Title Page	:	تأثير التدخين السلبي علي النمو الذهني والحركي لدى الاطفال ماقبل المدرسة في القاهرة.
Library register number	:	6121-6122.