

Physical Therapy Department for Musculoskeletal Disorder and Its Surgery

Doctoral Degree
2000

Author	:	Manal Mohamed Ismail.
Title	:	The effect of computer simulation enhanced training on hand functions in children after reconstruction of hypo plastic thumb.
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Abstract	:	<p>The purpose of this study was to investigate the effectiveness of a developed computer simulation-training program on hand functions. Nineteen children (26 hypo plastic thumb) participated in the study. They were randomly assigned to two groups: The experimental and control group. The developed computer simulation-training program was used for the experimental group. Twelve sessions of training for different types of grasp were inducted. A scoring system was developed to measure the skills (two point palmer pinch, tip pinch, lateral pinch and grasping of small and large object) acquired in the training period. Also score was given for motion and strength. Measurement was taken for both the control and the experimental group before and after the training period. It was found that 20% of the experimental group had grade "good", 60% grade fair and 20% grade poor. It was significantly higher than the scores achieved by the control group. It was concluded that the developed computer simulation program produces better results concerning the hand function. This is due to the action feedback provided by the system. It was found to be interesting and motivating tool for the children.</p>
Key words	1.	Computer simulation enhanced training.
	2.	Simulation enhanced training- Computer.
	3.	Hand functions in children.
	4.	Reconstruction of hypo plastic thumb.
	5.	Hypo plastic thumb.
	6.	Children.
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