

Diagnostic Category: Cerebral palsy Discipline: Physical Therapy

Reference	N	Intervention (n)	Telerehabilitation programs:	Platform & clinician's involvement	Outcomes
Country Study Design Quality (for RCTs)	Sample description (dx specifics, age, gender)	vs. Comparison (n) Frequency & duration	I. Focus II. Nature III. Target IV. Receiving client		Child-related outcomes Parent-related outcomes (+) significant between-group differences for RCTs or within group improvements for non-RCTs (-) no significant between-group differences for RCTs or within group improvements for non-RCTs
Surana et al., 2019 USA RCT PEDro score: 6/10 High quality	N= 24 Children with unilateral spastic CP Mean age: 5.5 ± 2.4 yrs Age range: 2-13 yrs 10M:14F	LIFT (n=12) vs. H-HABIT (n=12) 2 hrs/day 5 days/week for 9 weeks (total 90 hrs)	I. UE/LE motor functions; mobility II. LIFT: Caregivers were trained to administer the intervention in the home setting. It consisted of activities to improve gait, LE gross motor function by targeting strength, balance, and coordination of LEs with emphasis on the involved leg. This treatment is based on principles of motor learning, intensive and structured practice, skill/activity progression and resistance training. H-HABIT: Caregivers in H-HABIT	Video conference (including webcam) Progress and skill progression were monitored, and supervision was provided via weekly telerehabilitation. Supervisors monitored daily logs to ensure that there was no treatment overlap.	At 9 weeks (post-treatment): (+) <i>Ambulation/mobility</i> : ABILOCO-kids (-) <i>Endurance</i> : 30-s chair rise (-) <i>Standing balance</i> : Single-leg stance on the affected side (+) <i>Walking capacity</i> : 1 Minute Walk Test (-) <i>Walking capacity</i> : 10 Meter Walk Test

			<p>control performed activities that involved only the upper extremities.</p> <p>III. Child</p> <p>IV. Child + parent</p>		
<p>Weightman et al., 2011</p> <p>UK</p> <p>Pre-post study</p>	<p>N= 18</p> <p>Children with CP</p> <p>median age 7.5y; (mean not available)</p> <p>age range 5–16y</p> <p>13M:5F</p> <p>Median total 75 mins/session</p>	<p>Home-based rehabilitation exercise system (HB-RES, n=18)</p> <p>Median total 75 mins/session</p> <p>For 4 weeks (children were told to use the device whenever they wanted to)</p>	<p>I. UE/LE motor functions; mobility</p> <p>II. HB-RES consists of a powered joystick linked to a computer game, to enable children with arm paresis to participate in independent home exercise.</p> <p>Five different themed games were developed: (i) a spaceship game; (ii) a monkey chasing bananas game; (iii) a helicopter and balloon game; (iv) a shark game; and (v) a football game.</p> <p>All of the games, independent of the theme, encouraged users to perform aiming movements in the transverse plane, with the joystick system supporting the limb. Users were told to perform the movements as quickly and accurately as possible. The child had to use their upper limb as much as possible for all arm exercises.</p> <p>III. Child</p> <p>IV. Child + Parent</p>	<p>Web + calls</p> <p>Regular telephone checks were conducted by the research team to ensure that the system was working.</p>	<p>At 4 weeks (post-treatment):</p> <p>(-) <i>Kinematics</i>: Range of elbow movement; used as a marker of voluntary upper limb movement; measured using a standardized exercise task in the Home-Based Rehabilitation Exercise System (HB-RES); movement time, peak speed and smoothness of movement (normalised average rectified jerk)</p> <p>(+) <i>Occupational performance</i>: COPM</p>