The Reliability Study and Comparison of Sit-to-Stand Repetitive Maximum Capacity in Children with Cerebral Palsy and Children without Disability

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**Purposes:** To examine the test-retest reliability and to compare the performance of a functional-strength test, the loaded sit-to-stand test (LSTST), in children without disability (ND) and children with cerebral palsy (CP). **Methods:** Fourteen ND children (mean age 111 ± 17 months) and 14 children with CP (mean age 96 ± 27 months) were included. The child being tested wore the weighted jacket with various weights to repeat sit-to-stand as many times as possible to obtain the data for the Repetition Maximum (xRM) in a standardized procedure with a 5- to 7-day interval. Each load was normalized with the body weight of the child to obtain the Normalized xRM (NxRM). **Results:** The NxRM for LSTST for children with CP was only half of the value for ND children. The test-retest reliability of LSTST was good for both groups (ICC = 0.88 - 0.96). **Conclusions:** Children with CP are weaker than ND children from the results of LSTST. The LSTST is a reliable test for both groups. The validity of LSTST and the effectiveness of the loaded STS strengthening programs need further investigation. (FJPT 2002;27(6):292-302)

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