

ORAL PRESENTATION OP17

Relearning to Rise: Part-Practice Versus Whole-Practice Sit-To-Stand Training in Post-Stroke Individuals: A Randomized Controlled Trial

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ABSTRACT

Background and Objectives: Stroke is a leading cause of long-term disability worldwide, often resulting in muscle weakness, impaired balance, and reduced ability to perform activities of daily living. Sit-to-stand (STS) training is a key intervention in stroke rehabilitation; however, uncertainty remains regarding the optimal training approach. This study aimed to compare the effectiveness of part-practice and whole-practice STS training in improving functional performance and quality of life among post-stroke individuals. **Methods:** This randomized controlled trial included 36 post-stroke individuals allocated to either a part-practice STS training group (n=18) or a whole-practice STS training group (n=18). Outcome measures included the Motor Assessment Scale (MAS), Hand-Held Dynamometer (HHD), Five-Times Sit-to-Stand (5TSTS) test, Timed Up and Go (TUG) test, and Stroke-Specific Quality of Life (SS-QOL) scale. Two-way mixed-model ANOVA, Friedman's test, and Mann-Whitney U test were used to evaluate intervention effects. **Results:** Significant main effects of time were observed across all outcome measures following STS training ($p < 0.05$). Although no significant time-by-group interaction was identified, the part-practice group demonstrated greater mean improvements in right quadriceps strength ($+1.76 \pm 1.92$), left quadriceps strength ($+1.34 \pm 1.51$), right gluteus strength ($+1.20 \pm 1.10$), 5TSTS performance (-3.40 ± 1.92 seconds), and SS-QOL scores ($+14.4 \pm 7.58$) compared with the whole-practice group. **Conclusion:** STS training is an effective task-specific intervention in stroke rehabilitation. While both approaches improved outcomes, part-practice training demonstrated greater clinical improvements in selected measures and may offer additional benefits for individuals with motor planning difficulties. These findings support the integration of part-practice STS training into evidence-based stroke rehabilitation.

Keywords: Stroke rehabilitation, sit-to-stand training, part-practice, whole-practice, motor learning, randomised controlled trial.

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