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Effects of Task-Oriented Circuit Class Training on Physical Fitness of Stroke Survivors

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Abstract

Aim: The purpose of this study was to assess the effectiveness of task-oriented circuit class training on physical fitness of stroke survivors in the early stages of stroke rehabilitation. **Method:** This study involved twenty (20) hemiparetic stroke survivors with ten (10) participants each in the task-oriented circuit class training group (TCCTG) and the non-circuit class training group (NCCTG). Participants in TCCTG underwent supervised TCCT with duration of 80 minutes per session, three times per week for 8 weeks in addition to conventional physiotherapy. Assessments were done at baseline and week 8 using resting heart rate (RHR), 5-minute heart rate recovery (5-min HRR), blood pressure (BP), 6–minute walk test (6-MWT), 10-metre walk test (10-MWT) and functional ambulatory category (FAC) score as outcome measures. **Results:** There were significant reductions in RHR, 5-min HRR, SBP and DBP ($p<0.05$) with significant increases in 6-MWT, 10-MWT and FAC score ($p<0.05$) within the TCCTG. However, only the 6-MWT and 10-MWT showed significant differences ($p=0.0432$ and $p=0.0121$) in the NCCTG. The means of RHR, 5-min HRR, SBP and DBP were significantly lower in the TCCTG than the NCCTG ($p<0.05$). Also, at week 8, there were significant increases in 6-MWT, 10-MWT and FAC score ($p<0.05$) in the TCCTG compared to the NCCTG. **Conclusion:** Task-oriented circuit class training can improve both physical fitness and functional capacity in stroke survivors in the early stages of stroke rehabilitation.

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Key Words: Task-oriented, Circuit Class Training, Physical Fitness, Stroke Survivors

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