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Poster presentation

Characterizing aerobic and muscle strengthening activities among people with stroke and TIA: an analysis from the Canadian Longitudinal Study on Aging

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Background and aims: Overwhelming evidence supports the widespread implementation of aerobic exercise and strength training after stroke. However, community uptake of these activities is unclear. The objectives of this study were to characterize participation in moderate to vigorous aerobic and muscle-strengthening activities in Canadians with stroke or TIA.

Methods: This study used baseline data from 2,367 adults with stroke or TIA enrolled in the Canadian Longitudinal Study on Aging. Participants were eligible for this analysis if they had a stroke or TIA and had available data on aerobic and muscle-strengthening activities, using the Physical Activity Scale for the Elderly. Descriptive statistics (means, 95% confidence intervals [CI]; percentages, standard error) were used to characterize participation together and by sex (male, female) and event type (≥ 1 stroke, TIA-only) using univariable regression analyses and chi-squared tests. Inflation and analytic weights were used for all analyses.

Results: 2,120 participants (51.3% females, 9.3 years post-event [95% CI: 8.6, 10.0]) were available for this analysis. On average, participants engaged in 61.3 (95% CI: 48.9, 73.6) and 36.0 (95% CI: 29.2, 42.7) minutes per week of moderate to vigorous aerobic and muscle strengthening activities, respectively. Males participated in aerobic activities more frequently than females (73.7 mins vs. 48.7 mins, respectively; $p=0.04$). There were no differences by event type. 76.7%, (standard error [SE]=3.3) of participants reported never participating in muscle strengthening activities, and of those who participated, 54.7% (SE=6.4) engaged in <30 minutes per day.

Conclusions: Current guidelines recommend that people with stroke undergo 20-60 minutes of aerobic exercise ≥ 3 days per week with 2-3 days of muscle-strengthening activities. However, people with stroke or TIA have low levels of engagement in both aerobic and muscle-strengthening activities, which are not likely to meet current recommendations. Implementation efforts should encourage regular participation in aerobic and muscle-strengthening exercise in the community.