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95 The Role of Gender in Cognitive Outcomes from Stroke

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Objective: Stroke is a prevalent disease and often produces cognitive impairment. Post-stroke cognitive impairment has been associated with challenges returning to interpersonal and occupational activities. Knowing what factors are associated with cognitive impairment post-stroke can be useful for predicting outcomes and guiding rehabilitation strategies. One such factor is gender. Previous research has not led to definitive conclusions as to whether there are gender differences in cognitive outcomes following stroke. This may be because other factors, including age at stroke onset, years of education, premorbid intelligence, and lesion volume, may account for apparent gender differences in cognitive outcomes of stroke. Here, we sought to examine whether there are gender differences in general and specific cognitive functions following stroke, beyond what can be accounted for by age at stroke onset, years of education, premorbid intelligence, and lesion volume.

Participants and Methods: Participants were 237 individuals in the chronic epoch (≥ 3 months) following ischemic stroke. Using multivariate linear regression, we examined gender as a predictor of overall cognitive functioning and specific cognitive functions, while controlling for age at stroke onset, years of education, premorbid intelligence, and lesion volume. To quantify overall cognitive functioning, we used a measure of general cognitive ability (g) and Full Scale IQ score from the WAIS. To quantify specific cognitive functions, we used scores from 16 individual neuropsychological tests.

Results: After controlling for demographic and lesion factors, men and women did not show

any significant differences in overall cognitive functioning following stroke as measured by g ($\beta = -0.01$, 95% CI: $-0.14 - 0.12$, $p = .887$) or Full Scale IQ ($\beta = -0.01$, 95% CI: $-2.93 - 2.27$, $p = .801$). There were some significant gender differences on specific cognitive tests after controlling for demographic and lesion factors. Specifically, women performed better than men on the Rey Auditory Verbal Learning Test ($p < .001$) and men performed better than women on the WAIS Information subtest ($\beta = -.65$, 95% CI: $-0.97 - -0.33$, $p < .001$).

Conclusions: Our findings suggest that although men and women have similar overall cognitive functioning after stroke, they show some differences in specific cognitive functions even after accounting for demographic and lesion factors. Namely, women demonstrated better performance on a test of learning while men demonstrated better performance on a test of verbal knowledge/comprehension. This information is important for clinicians as they assess cognitive outcomes in patients post-stroke and plan rehabilitation strategies.

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96 Short-Term Blood Pressure Variability and Cerebrovascular Health in Older Adults

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