

Knowledge of post-stroke individuals and the use of stroke as a predictor of adopting healthy lifestyle behaviors



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INTRODUCTION & AIM

Recurrent stroke contributes to the high global burden of stroke. Consequently, stroke secondary prevention has been considered a priority solution to reduce the global stroke burden. Stroke secondary prevention should include health education to encourage the adoption of healthy lifestyle behaviors. However, it is unclear which aspects of stroke knowledge should be addressed in these educational efforts.

 This study aims to identify whether knowledge variables about stroke are predictors of the adoption of healthy lifestyle behaviors post-stroke.

METHOD

- This is a cross-sectional study (CAAE: 26431319.6.0000.5149).
- All individuals admitted to the stroke unit of the Hospital Risoleta Tolentino Neves in Belo Horizonte/MG (a Brazilian metropolis) between September 2019 and February 2021 were invited to participate in the present study two years later. Data were collected by phone calls between September 2021 and February 2023 using the Stroke Riskometer™ App.
- Inclusion criteria: clinical diagnosis of stroke confirmed by imaging tests, age ≥ 20 years and signing the free and informed consent form. Exclusion criteria: functional dependence before the stroke and cognitive impairment.
- The dependent variables were: smoking, alcohol consumption, diet and physical activity, in addition to the simultaneous adoption of the four habits.
- The independent variables were: knowledge about what a stroke is, the signs and symptoms of a stroke and the risk factors for the occurrence of a stroke, in addition to the individual's belief that he/she could have another stroke.
- Descriptive statistical analyses and binary logistic regression models were performed ($\alpha=5\%$).

RESULTS & DISCUSSION

- A total of 384 post-stroke individuals were identified for contact via telephone calls. Of these, 236 (62%) individuals were not included: 163 (69%) could not be contacted due to the wrong telephone number or failure to answer contact attempts, 32 (14%) refused to participate in the study, 18 (8%) individuals died, 17 (7%) were unable to communicate by telephone considering the report of a family member/caregiver presented during the telephone call, and, after the exclusion of 6 (3%) individuals identified as outliers in the logistic regression models generated, a total of 75 individuals (Table 1) were included in the present study.

RESULTS & DISCUSSION (CONTINUATION)

Table 1. Participant characteristics

Variables	n=75
Age (years): mean (SD)	64 (14)
BMI (kg/m ²): mean (SD)	26 (4)
Sex: n male (%)	38 (51%)
No smoking: n (%)	65 (87%)
Moderate alcohol consumption (<1 drink/day): n (%)	74 (99%)
Consumed ≥ 2 servings of fruits or vegetables/day: n (%)	48 (64%)
Physical activity practice (≥ 1 hour/week): n (%)	25 (33%)
Adoption of all four healthy lifestyle behaviors: n (%)	14 (19%)
Know what a stroke is: n (%)	43 (57%)
Know the signs and symptoms of a stroke: n (%)	41 (55%)
Know the factors for the occurrence of a stroke: n (%)	29 (39%)
Individual's belief that they may have another stroke: n (%)	33 (44%)

Legend: BMI - body mass index; kg: kilograms; m: meter; SD - standard deviation

- The logistic regression model generated for the practice of physical activity presented a correct classification of 65.3% and the model generated for the simultaneous adoption of all healthy lifestyle behaviors presented a correct classification of 81.3%.
- The results demonstrated that having knowledge about the risk factors for stroke occurrence was a significant predictor for physical activity participation (B: 1.08, Odds Ratio (OR): 2.95, 95% Confidence Interval (95%CI): 1.03-8.41, $p=0.043$) and for the simultaneous adoption of four healthy lifestyle behaviors (B: 1.45, OR: 4.27, 95%CI: 1.15-15.82, $p=0.030$).

CONCLUSION

It is important to identify individuals who do not have knowledge about the risk factors for stroke and provide educational actions when the objective is to promote participation in physical activity and the simultaneous adoption of all healthy lifestyle behaviors in secondary stroke prevention actions.

FUTURE WORK / REFERENCES

Most individuals post-stroke in the present study adopted more healthy than unhealthy behaviors, except for physical activity: 86.7% did not smoke, 89.7% consumed alcohol safely, and 64% consumed two or more servings of fruits/vegetables daily. These behavior adoption rates (smoking, alcohol consumption, and diet) (Table 1) may explain why related models did not show significant predictors. Future studies should include more representative samples for these behaviors.

