

Multi-disciplinary healthcare research/publications

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Public Perception of Personal Stroke Risk in Rural Pennsylvania.

Poster presented at the International Stroke Conference, Kissimmee, FL, February.

Background: Stroke risk-reducing behavior is likely influenced by the perception that personal risk factors increase lifetime stroke risk. We sought to identify factors that influence individual perception of stroke risk.

Methods: An age-stratified random sample of 1426 adults from central Pennsylvania, aged 18 and older, participated in a random-digit dial telephone survey. Respondents were asked, "What do you think are your chances of having a stroke in your lifetime (no chance, low, moderate, or high risk)?"

Results: The mean age of respondents was 52.4 years; 71% were women; 45% were ≥ 55 years; and 96% were Caucasian. Overall, 46% of respondents said they had no or low chance of having a stroke in their lifetime, and 53% said they had a moderate or high risk. There was no significant difference between men and woman, including those ≥ 55 years. Forty-two percent of respondents with one or more established stroke risk factors (e.g., hypertension, diabetes, hypercholesterolemia, smoking, prior stroke or TIA, heart or vascular disease, or heavy alcohol use) reported no or low lifetime stroke risk. The perception of personal stroke risk increased with the number of personal stroke risk factors and with body mass index (BMI), and decreased in those who said they exercised regularly, did not take daily aspirin, or had some college education. Factors independently associated with perception of moderate or high stroke risk included age (Odds Ratio [OR] 1.72; 95% [CI] 1.17-2.53); number of personal risk factors (OR 1.44 for each individual risk factor; CI 1.31-1.59); and obesity (BMI ≥ 30 ; OR 1.68; CI 1.27-2.22).

Conclusion: Individual perception of lifetime stroke risk was U-shaped across age, peaking at 40-49 years, and increased with number of risk factors and obesity. Most consumers do not correctly estimate their personal risk of stroke, particularly the elderly and young adults. Despite an increased lifetime stroke risk for women over 55 years, no gender-based differences in risk perception were found. Identified gaps in stroke-risk perception can guide community education efforts to encourage disease-modifying behavior with an emphasis on those at highest risk.

Study supported by Health Resources and Services Administration. Grant Number: 1 D1BTH01044-01-00.