Multi-disciplinary healthcare research/publications

Linda M Famiglio, Stuart Hoffman, Walter F Stewart, **Mary A Blosky**, Craig Wood, Judith Reardon, Jonathan Hosey. (2006)

Does learning style preference of rural consumers influence knowledge of stroke warning signs? Poster presented at the National Rural Health Association Annual Conference, Reno, NV, May.

Objective: To determine the relationship between preferred learning styles and knowledge of stroke warning signs.

Background: Internet access to health-related topics is thought to be on the rise and replacing traditional approaches in rural populations. Internet based education is a potential methodology for distribution of health information in this population. Yet, little is known about how learning style preference influences health knowledge in rural populations.

Design/Methods: An age-stratified convenience sample of 1426 adults 18 + years old, participated in a telephone survey about stroke. Households from 31 counties, 15 designated as rural, were called using a randomly ordered list of phone numbers. During the interview, respondents were asked "When learning new information, do you find the following formats and materials useful? Lecture by an authority, article by an authority, oral instructions, written instructions, directions with images." Respondents were also asked "do you find the following materials useful? Internet, Brochures, Demonstrations, Films, TV news, Radio, Newspapers/magazines." Respondents were also asked to name established stroke warning signs (i.e., spontaneous recall). Subsequently both true and false warning signs were presented and respondents were asked to indicate whether or not they were related to warning signs of stroke. All answers were recorded as open-ended responses and coded after data collection was complete.

Results: The mean age of respondents was 52.4 years; 71% were women; 45% were 55 years; and 96% were Caucasian. 62.1% found Internet materials to be useful compared to 89.5% for brochures, 86.9% for print media, 84.1% for TV news, 83.9% for film, 83.6% for demonstrations, and 56.5% for radio.Those who preferred internet materials were no more likely to have knowledge of warning signs than those who did not prefer this medium. Younger age groups were more likely to prefer the Internet (89% of those < 30 years); of those over age 70, 22% preferred the Internet. (P<. 0001). Preference for both lectures and articles by authorities (p= .0007 and <. 0001) and preference for other materials that required reading (brochures and article by authority (p= .008 and .0009)) were associated with greater stroke warning sign knowledge. Respondents ages 50 – 69 were most likely to prefer lectures (p=. 0002) and articles (p= <. 0001). Women were more likely to prefer brochures (p= < .0001).

Conclusions/Relevance: Rural Pennsylvania respondents who preferred traditional brochures and print media for new information were significant predictors of knowledge of stroke signs and symptoms while preference for Internet materials was not significant. This study suggests that education to increase stroke knowledge in rural populations should present material in traditional approaches to older age groups while introducing Internet materials for younger age groups.

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