

Advances in Geriatrics

Rebecca J. Beyth, MD, MSc, Kristen Wing, and
Constance R. Uphold, PhD, ARNP



Applying Direct-to-Consumer Marketing Techniques to Stroke Prevention Education

It has been 10 years since an FDA policy facilitated direct-to-consumer advertising of prescription drugs on television.¹ The theory behind such advertising is that it can motivate patients to speak with their providers about the advertised drug and related health issues, thus influencing provider behavior.¹ Whether that influence is for good (as in opening up a dialogue about treatment options or uncovering previously unreported symptoms) or for bad (as in promoting overuse of pharmacotherapy or favoring more expensive drugs when less expensive options are available) is the crux of the controversy surrounding this practice.²

Taking the potentially positive power of the direct-to-consumer marketing strategy into consideration, investigators at the Geriatric Research, Education and Clinical Center (GRECC) of the North Florida/South Georgia Veterans Health System (NF/SGVHS) have been exploring whether applying similar techniques to health

promotion education can ultimately empower patients to adopt healthier lifestyles and to demand the best evidence-based health care from their providers. Since 1984, the NF/SGVHS GRECC has established a track record of excellence in basic research. It also has developed strong platforms for clinical innovation and has advanced the education of health care providers, clinical trainees and fellows, novice and senior researchers, and citizens in the community about geriatrics and aging. One specific goal of the NF/SGVHS GRECC is to use the direct-to-consumer approach as a mechanism for engaging patients more actively and directly in their health care decisions. Interventions that increase patient involvement can lead to increased control over illness, as well as improvements in functional capacity and disease control.^{3,4}

In line with these goals, we initiated a pilot project, entitled “Disseminating Stroke Prevention Materials to Veterans: The Development of a Direct-to-

Consumer Implementation Strategy.” Our objective was to examine whether a prominently placed poster, featuring the “Sarge” character from Mort Walker’s “Beetle Bailey” comic strip, could motivate veterans to seek further stroke prevention education, adopt healthier behaviors to reduce their stroke risks, and discuss stroke prevention with their health care providers.

WHY THE NEED FOR STROKE PREVENTION EDUCATION?

Each year, 700,000 people experience a new or recurrent stroke. When considered separately from other cardiovascular diseases, stroke is the third leading cause of death in the United States. In 2004, it accounted for one of every 16 deaths, and half of all stroke deaths in 2003 occurred out of the hospital. Moreover, stroke is the leading cause of serious, long-term disability in the United States, with more than 1.1 million adults reporting functional limitations and difficulty with daily activities arising from a stroke.^{5,6}

Dr. Beyth is a physician researcher at the Geriatric Research, Education and Clinical Center (GRECC) of the North Florida/South Georgia Veterans Health System (NF/SGVHS); a core investigator for the NF/SGVHS Rehabilitation Outcomes Research Center (RORC) and the NF/SGVHS Stroke Quality Enhancement Research Initiative (QUERI) Center; and an associate professor and chief of the division of career development and education in the department of aging and geriatrics at the University of Florida (UF) College of Medicine; all in Gainesville. **Ms. Wing** is the public affairs specialist and webmaster for the NF/SGVHS RORC and Stroke QUERI Center. **Dr. Uphold** is the associate director of education/evaluation at the NF/SGVHS GRECC, a research health scientist for the NF/SGVHS RORC, a core investigator for the NF/SGVHS Stroke QUERI Center, a research associate professor in the department of aging and geriatrics at the UF College of Medicine, and a fellow in the American Academy of Nursing.

The VHA's Geriatric Research, Education and Clinical Centers (GRECCs) are designed for the advancement and integration of research, education, and clinical achievements in geriatrics and gerontology throughout the VA health care system. Each GRECC focuses on particular aspects of the care of aging veterans and is at the forefront of geriatric research and clinical care. For more information on the GRECC program, visit the web site (<http://www1.va.gov/grecc/>). This column, which is contributed monthly by GRECC staff members, is coordinated and edited by Kenneth Shay, DDS, MS, director of geriatric programs for the VA Office of Geriatrics and Extended Care, VA Central Office, Washington, DC.



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These statistics add up to a substantial financial burden. In 2007, direct and indirect costs of stroke are expected to total \$62.7 billion. Medicare alone paid a total of \$3.7 billion—or \$6,037 per patient—for care in short-stay hospitals related to cerebrovascular disease in 2001.^{5,7}

Stroke is a particular concern for the VHA, which treats a population that is, on average, older and less healthy than the general U.S. population. The VHA estimates that approximately 17,000 veterans were treated for stroke during fiscal year 2005.⁸ Additionally, the one-year poststroke mortality rate among veteran inpatients is 20%, and 30% of veterans who have had a stroke are discharged to noncommunity, institutional settings.⁹

Prevention and early intervention are crucial to reducing the burden of stroke. Yet the percentage of the general public who are aware of stroke risk factors is believed to be low, with estimates varying from 17% to 68%.^{10,11}

GETTING THE WORD OUT

To increase awareness of stroke risk factors and prevention strategies among veterans, we developed a poster and displayed it in select VA medical centers and outpatient clinic waiting areas within VISNs 8 and 11 during National Stroke Awareness Month in May 2006 (Figure). A “take one” pocket on the poster held postcards that could be used to request a free information packet on stroke prevention by mail. The cards also contained instructions for requesting the packet through a toll-free telephone number or a web-based request form.

Several traditional marketing strategies were incorporated into this project. First, a recognizable face—Sergeant Orville “Sarge” Snorkel from the popular “Beetle Bailey” comic strip—was enlisted to help deliver the “Reduce Your Risk, Prevent a Stroke” campaign

message. “Beetle Bailey” creator Mort Walker (himself a World War II veteran) supported the project and generously donated custom cartoons that depicted Sarge engaging in both high risk and prevention behaviors.

We also recruited assistance from prominent health care organizations involved in stroke prevention. The American Stroke Association (a division of the American Heart Association) and the National Stroke Association both contributed educational materials for the packets. The packets contained stroke risk scorecards, stroke symptom pocket cards, various fact sheets from the American Stroke Association, and VA-created bookmarks on managing cholesterol and hypertension.

Finally, we utilized existing VA resources to maximize the effectiveness of our campaign. Such VA entities as the National Center for Health Promotion and Disease Prevention, the Office of Public and Intergovernmental Affairs, and the Office of Research and Development played instrumental roles in delivering the message to VA clinicians, researchers, and other employees. These groups provided information about the campaign through their web sites, e-mails, monthly conference calls, the VA *Research Currents* newsletter, and employees’ earnings and leave statements.

A LITTLE INFORMATION GOES A LONG WAY

Response to the campaign from veterans, caregivers, VA clinicians, and other employees has been overwhelmingly positive. In four months, 882 packets were requested: 50% by veterans, 45% by employees, 1% by caregivers, and 4% by other individuals. Although information on the intended use of packets by requesters was not tracked formally, several clinicians requested large volumes of packets—presumably to distribute in their clinics.



Figure. “Are you at risk?” poster developed with custom cartoons provided by Mort Walker, creator of the “Beetle Bailey” comic strip, for the North Florida/South Georgia Veterans Health System Stroke Quality Enhancement Research Initiative Center. The poster shows Sarge engaging first in behaviors that are risk factors for stroke and then in health promoting behaviors. Cartoon artwork copyright © 2006 King Features Syndicate, Inc. Reprinted with permission. All rights reserved.

Of the requesters, 528 (270 veterans, 239 employees, five caregivers, and 14 others) agreed to take a follow-up survey that could be completed by telephone, mail, or internet. Completed surveys were received from 254 individuals (86 VA clinicians and health educators and 168 veterans and others), for a response rate of 48%. The majority of surveys (71%) were completed online, followed by telephone (15%) and mail (14%).

Among the 168 veteran and other non-health care professional respondents, 73% felt they learned something from the materials that made them think they might be at risk for stroke, 73% were influenced by packet materi-

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als to check their blood pressure, 59% checked their cholesterol, 59% checked their blood glucose level, 55% increased their physical activity, 52% changed their diet, 46% started taking a prescribed medication, 39% visited their health care provider, 20% reduced their smoking, and 11% quit smoking. Respondents also indicated they found the educational material to be visually appealing, easy to read, and straightforward. In the comments section of the survey, respondents provided additional positive feedback, including statements about how the packets motivated them to “make an appointment for a complete physical,” helped them to “lose nine pounds in 10 weeks,” and provided dietary tips that resulted in blood pressure reduction. One individual, who had experienced several previous strokes, expressed gratitude for “such a comprehensive packet of information,” saying that, “It serves as an important reminder.”

The majority of clinicians expressed confidence that the packet could positively influence patient behavior. Nearly all clinicians indicated that veterans could learn something about their stroke risk from the packet. And many felt that the packet could motivate patients to: visit their health care provider (94%); take a medication recommended by the provider (94%); monitor their blood pressure (99%), cholesterol (94%), and blood glucose levels (79%); alter their diet (77%); cut back on smoking (78%) or quit (52%); and increase their physical activity levels (87%).

THE NEXT STEPS

The GRECC investigators, along with collaborators from the University of Florida College of Journalism and Communications, have received funding from the VA Health Services Research and Development's Stroke Quality Enhancement Research Initiative (QUERI) for a second pilot project, “Intervention Development

for Shared Decision Making in Stroke Prevention.” This project will use the direct-to-consumer marketing approach to develop a video that nurses can use to educate patients with atrial fibrillation (AF) on the use of warfarin and aspirin to prevent stroke and to encourage them to discuss these antithrombotic therapies with their providers. Veterans from NF/SGVHS with AF will be recruited to help develop the video. Although the discussion of specific drugs in a direct-to-consumer marketing campaign might seem to approach more controversial territory, the use of these antithrombotic agents to prevent stroke in patients with AF is supported by extensive research and endorsed in current national guidelines.

From our experience thus far, we conclude that the direct-to-consumer marketing strategy is a promising one for promoting health through increased awareness of modifiable risk factors and health behaviors. Our pilot project demonstrates that large numbers of participants can be reached quite easily and prompted into action. With the increasing burden of comorbidities on an aging population and the fragmentation of health care that occurs in these vulnerable patients, such tactics are an integral part of the dissemination and translation of research discoveries and innovations into better patient care. We believe that this innovative approach has the potential to be applied broadly in veteran and nonveteran populations at risk for various diseases. ●

Author disclosures

The authors report no actual or potential conflicts of interest with regard to this column.

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