Can Communications Reduce Racial Disparities? Two Programs Take on Breast Cancer

By Nancy Nelson

Despite substantial progress in reducing overall U.S. cancer death rates over the past decade, black Americans continue to have higher mortality rates for major cancers, including breast, colon, and prostate. The reason for these disparities is not clear. Some believe that communication strategies are at fault.

“Health professionals haven’t done a very good job of making sure that cancer information reaches low-income and minority populations,” said Matthew W. Kreuter, Ph.D., a professor of social work and medicine and director of the health communication research laboratory at Washington University in St. Louis. At the annual prevention meeting of the American Association for Cancer Research in November, Kreuter and others presented evidence suggesting that tailored communications strategies, aimed at increasing mammography rates in black communities, are effective.

Kreuter and his colleagues, working with 1,227 women in poor black communities in St. Louis, discovered in a randomized trial that tailoring health information to conform to individual differences resulted in greater mammography use than using health messages that ignore these differences. He tested both behavioral differences, such as a woman’s perceived risk of getting breast cancer, her knowledge of breast cancer, or willingness to get a mammogram, and cultural differences, for example, the value she places on spirituality or racial pride. Although some previous studies support the effectiveness of tailoring health messages to women’s behavioral differences, culturally relevant tailoring is a new approach, according to Kreuter. He found that a combination of both behavioral and cultural tailoring had the greatest effect on increased mammography use.

Once the researchers determined which differences among black women are important in creating effective health messages, they incorporated this information into an interactive computer kiosk, which looks like an arcade video game. The kiosks were placed in community settings such as beauty salons, churches, and neighborhood health centers. After the women answer a few questions, the computer uses their answers to print a personalized health message. For example, a black woman with a strong sense of racial pride is likely to respond positively to a message about the importance of mammography for reducing race-based disparities in breast cancer mortality. Or, if a woman scored high on a question about spirituality, Kreuter said that an appropriate message might be, “The Lord has given us a powerful tool to find breast cancer early when it can still be treated effectively. Getting a mammogram together with the power of prayer gives you the best chance to live a long life in the service of God.”

In an article published last year in the Journal of Public Health Management and Practice, Kreuter described which of seven
community settings—beauty salons, churches, neighborhood health centers, laundromats, social service agencies, health fairs, and public libraries—was most successful in disseminating health information. After 4 years of collecting data from 92 kiosks and more than 12,000 kiosk users, he found that laundromats were the clear winner. “The kiosks in the laundromats reached more women, and the women they reached were much less likely to have had a mammogram or even to know where to go to get a mammogram,” he said.

The authors concluded that the effectiveness of the 35,000 U.S. coin-operated laundries for promoting health messages is due to their location—areas where residents who bear a disproportionate share of the cancer burden live—and the long periods of idle time spent there. Kreuter hopes to get funding to equip the kiosks with cell phones that would automatically call a local mammography provider when a woman indicates that she is not up to date on breast cancer screening.

Targeting Young Women

Another approach to reducing breast cancer among black women is taking place in Washington, D.C., where breast cancer mortality rates are the highest in the country. As coordinator of Project Early Awareness, created at Howard University Cancer Center, Kimberly Higginbotham teaches high school students about breast cancer risk factors and the importance of screening. The teenagers are then encouraged to share what they learned with their mothers, aunts, and grandmothers.

Higginbotham was originally on a different career path. But during her last year of graduate school at Howard University, where she was studying to be a physical therapist, she was diagnosed with breast cancer. After surgery and treatment, the late Rosemary Williams, the director of the tumor registry at Howard, contacted her. Williams was looking for a young cancer survivor to reach out to young black women, in an effort to decrease breast cancer mortality rates.

Since 2001, nearly 3,000 students in 16 D.C. public schools have participated in Higginbotham’s class. The class begins with her cancer story, followed by information about risk factors, breast growth and development, clinical breast exams, and mammography. The session ends with question and answers and a debunking of breast cancer myths; most common is that being hit in the breast causes breast cancer. Finally, she gives the students an information packet to share with their relatives.

“Having a person who has been through the experience really is important,” said Higginbotham. “The students see me, and they say, ‘Yes, she went through breast cancer, but they caught it early, and she received treatment, and she’s doing well.’”

Higginbotham’s story made a strong impression on Daisha Watson, one of the students at H.D. Woodson High School who took the class. Watson shared what she learned with her mother and grandmother and felt empowered to know that if she had children, she could teach them too.

“Every school should offer this class because many students like myself don’t learn this information at home,” she said.

Anecdotally, at least, the program seems to be working. Watson has encouraged her mother, Danina, to get screened for breast cancer. “I wasn’t getting mammograms on a regular basis. Now I do,” Danina Watson said. In fact, she and three other coworkers made an appointment together to get mammograms. “That’s movement right there,” she said. “I am so proud that my daughter brought that attention to me and made me get active. Children can get you to see things you can’t. We’re so set on our ways. It’s wonderful when you get back from your children.”

An evaluation of the program, which tested the students before the class and 2–3 months later, showed that their knowledge of breast cancer risk factors increased by 80%. However, the researchers were not able to collect enough information from the female relatives to evaluate the overall effect on mammography screening.

Future plans call for the expansion of the program to other states. In response to several requests to hold the class in other school districts, Howard University Cancer Center and the Prevent Cancer Foundation, which support the project, are trying to get grant money to train others to teach the class.

More Research Needed

Whether efforts to increase mammography use in black communities will affect breast cancer mortality rates is still unclear. Increased use of mammography has made early detection of breast cancer more common and has reduced mortality from this disease, said Nancy Breen, Ph.D., from the division of cancer control and population sciences at the National Cancer Institute.

But other factors may also be important in reducing black mortality rates. Previous studies suggest that delays in seeking treatment account for some of the disparity. And other studies suggest that mammography is associated more with income and education than with race. According to the latest National Healthcare Disparities Report from the Agency for Healthcare Research and Quality, the mammography rate for poor women is about two-thirds that for high-income women (48.5% compared with 75.3%). The researchers found no difference in mammography use between racial groups after controlling for income and education.

Probably more important, according to Sam Harper, Ph.D., of McGill University in Montreal is that black women tend to be diagnosed with breast cancer at a more advanced stage, which lowers the chances of survival. Even for a similar stage of diagnosis, however, survival among black women is lower than for white women. How much of this is due to differences in the availability and access to beneficial treatment versus tumor characteristics is not known.

“So, even though blacks are getting screened at the same rate as whites, we don’t know what happens after screening,” Breen said. “Until we have data that allow us to follow the health services obtained by women along the whole cancer continuum, from when they get a mammogram through their diagnosis and treatment to survival and death, we can’t really say what is causing such high breast cancer death rates in blacks.”