

The Influence of Media Messages and Social Networks in Prompting Appalachian Women to Have Mammograms

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ABSTRACT

Health Communicators play a critical role in raising awareness of cancer risk and disseminating these messages to the lay public. Interpersonal communication coupled with media messages can have a profound effect on screening behaviors, especially in rural populations where social networks can strongly influence health behaviors. This study, using the Health Belief Model as the theoretical framework and through interpersonal interviews, investigated Appalachian women to understand the influence of media and social networks on screening behaviors. Media were found to be most influential when complemented by social networks; however, social networks ultimately emerged as a powerful barrier to screening.

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INTRODUCTION

Health communicators have increasingly promoted mammography screening to women by presenting mammography recommendations through: advertisements on TV, radio, and the Internet; articles in newspapers and magazines; and PR campaigns (e.g. Race for the Cure, The Avon Walk, and pink ribbons). Unfortunately, many women are still not participating in preventive screening, especially within rural populations (Champion, 1999). Therefore, health communicators have an obligation to develop messages that create awareness about breast cancer, garner hope of survival, instill a sense of susceptibility, and empower women to take ownership of their health by participating in breast screening. This is particularly necessary in rural areas like Appalachia where women tend to respect the advice of their social networks over their health care practitioners (Weinert & Burman, 1994). Drawing on the Health Belief Model, this study examines how media and social networks influence Appalachian women to have a mammogram.

MEDIA INFLUENCE AND SOCIAL NETWORKS

Mass media have been largely effective in disseminating health information (Valente & Saba, 1998), especially concerning breast cancer. Campaign messages, although far-reaching and effective, have been criticized for igniting unnecessary fears towards breast cancer (Gottlieb, 2001) and downplaying the seriousness of the disease. Campaigns tend to promote the “happy” side of breast cancer through pink ribbon campaigns that support survivorship and promote camaraderie without any mention of screening barriers, false-positive/false-negative diagnoses, and death (Kahl & Lawrence-Bauer, 1996). Abstract health messages are often perceived as less personally relevant, allowing for the minimizing of personal risk (Mattson, 1999). This is often why campaign efforts bring about awareness instead of behavioral changes. Additionally, fear appeals used in media tend to dramatize the messages to increase reader/viewership by focusing on questionable issues and reporting extreme cases, not actual facts (Kahl & Lawrence-Bauer, 1996). Barriers also limit responses in every stage from exposure to behavioral change. Perhaps some of the greatest hurdles in campaigns are reaching the audience (Atkins, 2001); unfortunately, it appears that rural women are still being overlooked, resulting in lower levels of awareness when compared with their urban counterparts (Weinstead-Frye et al. 1999). Therefore, the following question guided this study:

Research Question #1: What role do mass media messages seem to play in participants seeking mammography?

As discussed above, media are effective at raising awareness of cancer risks; however, a woman's social networks can have an even more profound effect on her screening behaviors. Studies have indicated that social networks, especially family and friends have strong effects on women's use of preventive health services (Hurdle, 2001). So, even if a woman is exposed to media messages, her social networks may affect her decision to seek or avoid cancer screening (Kang & Bloom, 1993).

Studies have revealed that social relationships play an essential role in individual health behavior (Kang & Bloom, 1993; Suarez et al., 2000). Rural residents have been found to place special importance on neighbors and family members as sources of health information and support more often than health care providers (Weinert & Burman, 1994). Cancer control and prevention studies have also indicated that it is vital to consider the social networks of women (Suarez et al., 2000), especially those of rural women who are less likely to participate in breast cancer screening because of societal and economic barriers (Mayne & Earp, 2003). Therefore, the following question guided this study:

Research Question #2: What role do participants' social networks seem to play in prompting them to participate in mammography?

METHOD

This project was part of an omnibus study (Krishnan, 2002), conducted by the Rural Appalachian Cancer Demonstration Program (RACDP). A grant was awarded by the Centers for Disease Control and Prevention (CDC) to East Tennessee State University (ETSU) in collaboration with the University of Kentucky Markey Cancer Center and Center for Rural Health in Hazard and the LENOWISCO Health District of the Virginia Department of Health. This grant was designed to identify, explore, and describe cancer disparities in the Central Appalachian region.

One of the grant objectives focused on understanding breast cancer patterns of care in the region. We collected data on breast cancer patterns of care by tracking patients who were already diagnosed with breast cancer and receiving regular care from one of the two cancer centers (one from Tennessee and one from Virginia). The complete study included 107 women (76 women from Tennessee and 31 women from Virginia). The population for this study (N=88) consisted of Central Appalachian women (i.e. Northeast Tennessee and Southwest Virginia) previously diagnosed with breast cancer who were seeking treatment at regional cancer centers. Eighty-eight interviews were conducted via phone. The remaining women in our original sample of 107 patients were not included in the interviews due to wrong phone numbers, unavailability, illness, and no longer willing to participate in the study.

Patterns of care were explored through patient charts and then more extensively through individual patient-interviews. Preliminary findings revealed a higher percentage of late stage diagnosis in our sample than the SEER data of breast cancer incidence for 1992-1999. These results prompted us to do additional follow-up to better understand screening history and patterns of care leading to breast cancer detection. The results of those phone interviews are the primary focus of this paper.

A qualitative content analysis approach (Altheide, 1996) was used to analyze transcripts from in-depth phone interviews. This approach is anchored in thematic content analysis with influences from grounded theory (e.g., open and axial coding; Strauss & Corbin, 1990). In order to insure trustworthiness, an independent coder

coded the entire data set separately and met with the first author to review, discuss, and resolve the coding procedure. To preserve confidentiality, participants will only be identified by a number (e.g., P26 for participant 26).

RESULTS

In this study, media messages appeared to educate some participants. For example, P23 stated, "My family heard on TV that women over 50 needed to have a mammogram. I've been having regular mammograms ever since." In addition to educating the public about screening, media also tend to report screening controversies, as indicated by the following: "I read, watch TV and talk to my friends...I know there is controversy" (P29). In the end, as indicated by the above examples, the influence of media was more often reported as influential when coupled with social networks.

What emerged from the data was that participants often indicated that their social networks actually served as barriers to screening. Specifically, advice from social networks seemed to compliment existing personal fears, thereby restricting the use of mammography. For example, one participant offered, "I was afraid; people had told me horrible stories about them" (P47). Similarly, another woman said, "I was afraid of them because I had heard people talk about them" (P75). These two women's fears were apparently confirmed by others' experiences, resulting in lack of screening compliance. Perhaps significantly, only one woman reported that her social network had prompted her to have a mammogram, saying, "My family insisted that I have a mammogram" (P23).

As indicated by several participants, social networks tended to be perceived as providing credible information, especially about pain expectations. For example, P82 stated, "I heard they were uncomfortable and my doctor never recommended them." Another participant also suggested the weight of social networks when she said, "My daughter-in-law told me they were terribly painful and I have a fear of pain so I never went to have one" (P7). Unfortunately, then, it appears that fear without contradiction (e.g., from a doctor or a social network member) potentially results in screening-avoidance by some women.

Ultimately, in this study the influence of social networks was detrimental to these women's health. Participants received advice that reinforced their existing fears (e.g., about pain), thereby serving as a barrier to screening.

DISCUSSION

Both media and social networks appeared to influence participants' screening behaviors; moreover, the findings here within revealed that media coupled with interpersonal communication (i.e., with social networks) was more effective than media alone. What also emerged, however, was the detrimental role that social networks can play, particularly when their screening advice goes unchecked. Social networks in this

sample acted as a barrier to preventative health care which could prove especially harmful in rural communities where health information may be more readily obtained from family members and friends than from doctors.

The Health Belief Model contends that when individuals perceive more benefits and fewer barriers, then positive health behaviors will occur (Champion, 1999). Unfortunately, the opposite is true as well. The study revealed participants who expressed that their fears kept them from having mammograms, thus apparently outweighing the potential benefits of screening. Theoretically, a health threat must be recognized before healthy behaviors will be adopted. For mammography, a woman must perceive that breast cancer is both serious (severity) and that there is a possibility that she is personally at risk for the disease (susceptibility). Some of these women received advice from their social network that appeared to ultimately lower their perceived risk levels.

These findings reveal gaps in the effectiveness of media campaigns attempting to influence Appalachian women. Health education and promotion efforts need further examination in order to better understand how social networks complement and contradict health messages, thereby affecting perceived susceptibility, severity, benefits, and barriers.

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