

What did popular women's magazines from 1929 to 1949 say about breast cancer?

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Despite the increasing risk of breast cancer with age, older women are less likely to engage in breast cancer screening behaviors than are younger women. In order to examine articles written on the topic of breast cancer and cancer, a historical survey was conducted of women's magazines popular between 1929 and 1949. This survey was an attempt to identify the messages of that period and compare them with the beliefs and knowledge prevalent among women who are today 75 to 84 years of age. There were striking similarities found between the messages in the early magazines and in older women's beliefs today. This literature was also compared with the medical literature of the same time to identify the role of the nurse and common themes. This article outlines specific mass-media strategies that nurses can use to design appropriate messages for women of different ages as well as for policy makers and the public at large through popular media such as magazines.

Key Words: Older women—Breast cancer—Screening—Popular magazines.

Women ≥ 50 years of age tend not to participate in screening activities for breast cancer despite the

increase in risk for breast cancer with age (1). An array of variables has been associated with the underutilization of mammography, including beliefs held by the women, but their effect has been modest. These variables include a lack of knowledge about mammography, fewer perceived benefits and more negative attitudes about mammography, lack of physician's recommendation, screening costs, less access to the health-care system, and lower levels of education (2). Of these variables, lack of perceived need and physician recommendation seem to be the most significant predictors (3).

Physician barriers regarding the likelihood of recommending mammography have included concerns about the reliability of the radiology report, lack of time, forgetfulness, low yield of screening, and cost (1,3). Specialists (obstetrician/gynecologist) have been more likely to refer women for mammography than were family physicians (3).

Older women tend to be less knowledgeable about their increased susceptibility, to not worry about or to hold false beliefs about breast cancer, to believe that a woman does not need a mammography unless she has symptoms, and to have negative attitudes toward physicians regarding approaches to care (4,5). For example, more than half of the respondents in the study by Rimer et al. (5) believed that surgery spreads cancer, that treatments are worse than the

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disease, and that women can get cancer from being hit in the breast. Kushner's interviews with women found that they held beliefs similar to those of the women in the Rimer study, including the belief that cancer is contagious and can be spread by the surgeon during the operation (6).

Although evidence is not strong for the direct effect of beliefs and knowledge on screening behaviors, they form part of the context from which women and health professionals perceive and act in response to health threats. In order to answer the question "Where could older women have obtained information that would influence their beliefs and knowledge?" the author conducted a survey, from a historical perspective, that would identify what the lay public had been told about cancer in general and about breast cancer specifically.

Hamilton (7) said that "history attempts to recapture the complex ways that the persons and ideas of the past have influenced the present" rather than merely presenting a nostalgic idealization of the past. This article addresses this goal, through the use of historical methods, by conducting a historical literature review on breast cancer information appearing primarily in women's magazines. The target population includes the cohort of women who are today 75–84 years of age. The results will be briefly compared with writings on breast cancer and the role of nursing described in the medical literature of that time. But first, background information will be presented to underscore the relevance of age with screening behavior.

Breast cancer is the most prevalent cancer among women in the United States, the risk increasing with age. The incidence of breast cancer among women 30 years of age is 20 per 100,000, whereas the incidence increases to 310–330 per 100,000 in women ≥ 75 years of age (8). The American Cancer Society (9), the National Cancer Institute (10), the U.S. Preventive Services Task Force (11), and others (12) recommend annual breast physical examination and mammography in women > 50 years of age. However, the use of both mammography and breast examination decreases with increasing age (2), whereas mammography use decreases for women who are from rural areas, from the inner city, are poor, are nonwhite, and have lower education (1,13). Rates of ever having a mammogram have improved over the past 15 years. In the 1990 Mammography Attitude and Usage survey, however, only $\sim 31\%$ of women ≥ 40 years of age were on a regular screening schedule (14). In a 1989 study, only 20% of women ≥ 50 years of age

were screened at yearly intervals (15). Although breast self-examination has been promoted as an effective, inexpensive method of early detection, one study found that only 51% of women practiced on a monthly basis and many used incorrect methods (16). The 1990 Canadian Health Promotion Survey reported that among women > 65 years of age, 36% had never practiced breast self-examination (13) and 66% had never had a mammogram.

A strong case for regular mammography screening (particularly among older women) is based on evidence that mammography detects the highest proportion of breast cancers, reduces mortality, and can extend quality years of life. Furthermore, early detection offers more choice among treatments for older women, many of whom have comorbidities that might limit choices later in the course of the disease (2,17). Others have criticized high technology screening, suggesting that it takes advantage of cancer-phobia, is expensive, and is not generally available. Further criticisms include concerns regarding mammography sensitivity, specificity, appropriate follow-up treatment, usefulness in detecting fast-growing cancers, and safety (18). Critics also point out that improved survival time may be an artifact of early detection and that 30- to 40-year follow-up studies are needed to demonstrate that early detected cancer is "cured" rather than "discovered earlier" (16,18).

RESEARCH METHOD

The Guide to Bibliographic Resources (19) directed the search for historical documents at the University of Michigan Libraries. Popular literature was identified by the author through a manual search of the *Reader's Guide to Periodical Literature*, which indexes articles in the major general circulation U.S. magazines from 1900 to the present. Indexes organized in 2- or 4-year segments, covering the period 1929 through 1949, were examined using the key term cancer. No relevant references were found under tumor, breast, or neoplasm. All women's magazines and magazines that contained titles referring to cancer, women and cancer or breast cancer were searched, yielding a total of 13. However, volumes or microfilm of two magazines were missing (*Independent Woman*, *Woman's Home Companion*), and others were not specific to women and cancer (*Fortune*, *Saturday Evening Post*, *Newsweek*, *Atlantic Monthly*). The remaining magazines were *Good Housekeeping*, *Ladies Home Journal*, *Reader's Digest*, *Time*, *Scribner's*, *Forum & Century*, and *Hygiea* (*Today's Health*). The

latter magazine was produced by the American Medical Association to be displayed in physicians' waiting rooms. Peterson (20) has estimated there were >4,000 periodicals in 1930, increasing to >6,000 in 1950, but of these only 25–44 had circulations of over one million. Women's magazines, more than any other type, exceeded one million in circulation. *Good Housekeeping* had a circulation in the mid-1920s of over one million readers and doubled in the next dozen years (21). *Ladies Home Journal* and *Reader's Digest* each had a circulation of four million in the 1940s (20). A readership survey conducted in 1946 indicated that 70–80% of those persons ≥ 15 years of age read one or more of the 35–40 leading magazines fairly regularly. However, income and education were positively related to readership. In a 1947 survey, 98% of families with a total income of >\$5,000 were readers, but only 58.5% with an annual income of \$500–1,000 were readers (20). Audiences of confession magazines such as *True Confession* consisted in large of working class housewives, and these magazines seldom dealt with health information during these years (20). Thus, although leading magazines were a common source of information for the layperson, the poorer, less educated appeared to be under-represented.

Medical literature on breast cancer and nursing's role in cancer detection and care was located in the *American Journal of Nursing* and the *American Journal of Public Health*. References for *American Journal of Public Health* were manually identified in the Reader's Guide to Periodical Literature and those for *American Journal of Nursing* were located in a *Bibliography of the American Journal of Nursing 1924–1961* (22). All of the *American Journal of Nursing* articles were reviewed while only those articles in *American Journal of Public Health* related to breast cancer or nursing care of cancer patients were reviewed. Other journals such as *Science* were indexed under the term Cancer but were not related to women and cancer.

RESULTS

Findings 1929–1939

Nine articles were written during the period 1929–1939 on the subject of breast cancer or women and cancer. These articles were written by physicians, journalists who interviewed physicians, an executive of an insurance company, or persons directly associated with the American Society for the Control of Cancer (ASCC; formed in 1913 and preceding the

American Cancer Society). One article appeared to be written by the daughter of a cancer survivor, but the author has concluded that this was a fictional account written by a professional based on the style and form (23). Titles ranged from the dramatic—“The Greatest Scourge in the World” (24) and “Fighting Cancer” (25)—to eye catching—“Vanity, Modesty and Cancer” (26)—to an invitation for information—“Let's Talk More About Cancer” (23) and “If You Have a Lump in Your Breast” (27). Few articles used pictures or illustrations; however, those noted included a loving mother holding an infant, a physician firmly pointing his finger at the reader, and another of Mark Twain.

The majority of the articles focused on educating the lay public by describing cancer and early symptoms, urging personal responsibility for reporting signs to physicians, and dispelling myths. These writers reflected the foremost goals of the ASCC that persisted for the first 32 years of the Society's existence (28). During this time, the ASCC was led by physicians (mainly surgeons) and wealthy philanthropic women. Members of the ASCC, medical specialists, and cancer scientists were much more committed to promoting early detection and treatment of breast cancer than were family practitioners who had little faith in these practices (28,29).

Gardner (26) supported the role of education, which directed women to report early symptoms, and claimed this was responsible for lowering the incidence of breast cancer from 80% to 17% during 1915–1933. The prevailing view held by physicians and cancer experts was that any lump or abnormality must be removed: “as long as it remains, it is a menace” (30). By 1936, Dublin, a statistician in an insurance company, pointed out that changes in reporting methods and earlier detection of primary sites of breast cancer accounted for an increase in cancer deaths up to that time, but he concluded from this that cancer as a cause of death was no longer increasing in the United States (25). In retrospect, Dublin (25) was correct in 1937, but the debate over which statistics were accurate did little to rouse the public to act (28).

Two common myths that continue to exist were that cancer was contagious (25,31) and that all cancers were incurable (25). The “contagion” belief dates back to the 17th century, when the idea of metastasis was not known (32). Common messages included encouragement of women to “banish false modesty” (26), to do their “duty to other women . . . be thoughtful to your family and nurses . . . (consider) your children's sake” (27), and “report lumps to your

family physician." They were also exhorted to avoid massaging lumps in the belief that pressure would spread cancer cells (27).

A 1937 article in *Time* magazine (circulation 616,000) (33) described the educational efforts of the Women's Field Army formed in 1936 by the ASCC. This group was composed of women from clubs all over the country who donated money to finance education and stimulated medical societies to help with an anticancer campaign. Dr. Clarence Little, the director, used an evangelistic tone to get his message out, calling it a "war cry" and "trench warfare with a vengeance against a ruthless killer" (34). Causes of cancer, he suggested, were inheritance plus a susceptibility irritated by carcinogenic chemicals, physical agents, and possible biological products produced by parasites. The 1937 *Time* article was one of several published that contributed to the creation of the National Cancer Institute (28).

An outgrowth of the Women's Field Army was the Cured Cancer Club (31). Dr. Palmer, a female physician who was cured of breast cancer, founded the Club. She invited survivors to join to increase education and lessen the stigma associated with cancer. This article also stressed that cancer was not contagious, early detection and treatment were important, and fear was the greatest barrier. Very successful cases were described and included phrases such as "living proof" and "banish the spectre of ignorance that has made this disease the world's worst scourge" (31).

By the end of the 1930s, greater recognition of cancer as a threat had occurred. A Gallup poll in 1939 showed that cancer had surpassed tuberculosis as the dread disease (28). However, the attention of the public, especially the poor and ill educated, was on diseases such as polio and influenza, and they had little expectation that progress in cancer cures would occur.

Findings 1940–1948

Six articles were reviewed, and all had the word cancer in the title and were very direct and straightforward: "Early Cancer Can Often Be Cured" (35), "Breast Cancer" (36). Personalized accounts included "I Had Cancer" (37) and "Cancer—I've Had It" (38). Five of the articles were published in women's magazines and one in *Hygeia*. Most appear to have been authored by journalists, with one authored by a member of the National Cancer Institute (36) and one a first-hand written account.

Two authors in 1940 (35,39,40) clarified myths and encouraged early detection and annual checkups, although admitting the latter were expensive (40). Although they described cases in which surgery was performed, few details were given and there was an emphasis on the use of radium and x-ray. Davis (39) ruled out causes of cancer such as viruses, sex, race, milk, meat, aluminum utensils, electrical refrigerators, use of alcohol, or mental worry. However, Davis (39) added that poorly fitting garments, chronic irritation, and insufficient drainage of the breast (in breast feeding) could cause cancer of the breast. Women were advised to avoid all tight-fitting brassieres.

Morell (35) discussed the "widespread belief with which doctors are not in complete agreement that cancer often results from a single severe blow or bruise . . . blows do not frequently cause cancer, particularly in soft tissue such as the breast." This statement still appears to leave the question open. As for treatment, "cancer can be cured by burning it out . . . or cutting it out . . . if any doctor offers you (other choices), run, do not walk, to the nearest exit."

No articles were found between 1941 and 1944, which may reflect a preoccupation with the war effort. Postwar affluence and growing U.S. confidence contributed to increased optimism and positive thinking with regard to cancer. The ASCC was augmented with business people who infused money and power into the Society, which was renamed the American Cancer Society in the mid-1940s.

An article in 1945 (36) again advised early detection before metastasis via blood or lymph system could occur and encouraged self-responsibility. This was the only article reviewed that suggested monthly self-examination and described inspection and palpation using the whole palm. It was only later, in 1949, that the American Cancer Society produced a widely distributed film on performing breast self-examination (28). Marshino (36) cautioned against pressing hard on a lump because it might cause tumor cell migration. This was the earliest article to suggest the need to weigh treatment options depending on the cancer stage and cost benefits. Marshino urged the public to maintain a positive and cooperative attitude. This article was also the only one to suggest that there was hope for later diagnosed tumors to be successfully treated because they may be slow growing.

The last two articles were personal accounts found in the same volume of *Ladies Home Journal* (37,38) concerning breast cancer of two prominent, wealthy women. The articles stressed overcoming fear

and delay; one author preached the orthodox medical gospel of early detection followed quickly by radical mastectomy, and both contained realism regarding prosthesis problems and depression. Overall, both stressed a stoic and positive attitude resulting in a recovery that could be productive and happy. It is clear in the articles that these women had access to expensive services, leading authorities, and ample support, unlike many of the women reading these stories.

Findings in Medical Literature 1928-1948

Twelve articles about cancer and nurses' roles in cancer care were located among the *American Journal of Nursing* (10) and the *American Journal of Public Health* (2). Physicians wrote eight of the articles in the *American Journal of Nursing*, an educator from the American Cancer Society wrote one, and three nurses wrote the remainder.

The articles in the 1920s stressed the concept of cancer as primarily a "local lesion" (now disproved) and the possibility of a cure with early detection and removal. Horsley (41) stressed gentle handling of lesions: "treat as if it were a bomb and might explode." Levin (42) ruled out parasites as a cause, although C.C. Little as late as 1934 held this out as a possible cause. The nurse, because she was close to the patient and family, was viewed in a unique position that enabled her to educate them about cancer. She was told to "live up to the high ideals of her profession by loving her fellow creatures" (43).

In 1930, Lee (44) focused on factors influencing cancer, such as injurious, tight compression brassieres and stays that created chronic irritation. The nurse's role was to guide the patient to seek an expert physician for diagnosis and treatment but, if the nurse was not satisfied with the doctor's response, to suggest another opinion. A nurse, Eva MacDougall (45), discussing the public health nurse's role, also cautioned that not all doctors were qualified in cancer care and that a second opinion may be necessary. However, she did warn the nurse against suggesting one doctor, but rather providing a list to patients for their selection. She stressed the nurse's "grave responsibility" and her "duty."

Two articles were detailed about pathology and treatment (46,47). Both White (47) and Wolfer (48) advocated radical mastectomy as the treatment of choice, whereas Wolfer discouraged irradiation in 80% of cases, saying evidence showed no improvement in survival rates with its use preoperatively or post-

operatively. Radiation use was restricted by Wolfer to cases where malignancy was high grade.

An instructor in surgical nursing (49) gave detailed instructions on pre- and postoperative nursing care for radical mastectomy, advising the nurse to be sympathetic and remove fear. She felt that the nurse's role in follow-up included education on the warning signs of cancer and that this "can be done safely even when the patient doesn't know she has had a cancer removed." The nurse could help to conceal the "deformity" with soft material packed in the brassiere. The most recent article reviewed (50) was written by a nurse employed by the Public Health Service. She described the improvements that had been achieved in training, services, and research. However, Peterson admitted that nurses were not well educated in cancer care and that programs were underway to improve the training.

CONCLUSIONS

The finding from the Rimer et al. (5) study that many older women today believe that cancer can be caused by being hit in the breast resembles some of the writings found in popular literature of the 1930s and 1940s. Morell (35), although appearing to dispel this belief, implies it was still not equivocal among physicians. As early as the 17th century, a physician, Adrian Helvetius, argued that cancer was caused by an external trauma (32), and he claimed that surgery was the only hope. This belief continued to dominate in the 18th century. However, Kushner (6) concluded that although an ordinary sudden injury will not develop into a malignancy, prior history of breast diseases such as abscesses, which can be predispositions, might be classified as "breast injuries." So whether this is a myth in some ways is debatable.

Along with physical blows as a causative factor was the concern against massaging or pressing any lump because it was thought and still is believed by scientists (6) to cause tumor cell migration. Mammography did not come into general use until the 1960s and even then had its limitations (51), so its use was not known at the time period studied. Given that mammography involves firmly pressing the breasts between plates, one wonders whether this procedure has been one factor in discouraging older women (who may fear the screening would exacerbate a preexisting lump) from participating in screening. Confirming this fear may alter the way in which current screening promotional efforts could be tailored. Kushner (6) related that the negative publicity

in the 1970s emerging from the Breast Cancer Detection Demonstration Projects, which used unregulated high doses of radiation, continues to influence refusals to have mammograms.

Several of the early authors reviewed advised against tight-fitting undergarments that could cause chronic irritation, long thought to be a cause of cancer. Because today's brassieres are much less constricting, older women may not feel that they are now susceptible in the way they might have been during the 1920s and 1930s.

Another belief held by elderly women in the Rimer et al. (5) study was that the treatment is worse than the disease. Radical mastectomy was at its height in popularity during the 1940s, even though cure rates leveled out and did not improve after the early 1940s (52). Radiation was in its infancy and was unpredictable and expensive, whereas options less mutilating than radical mastectomy were still to be developed, so this attitude is not surprising. Some women believed that the surgeon spreads the cancer into the blood stream with his scalpel (6), but there is no scientific evidence to sustain this belief.

Personal responsibility was emphasized repeatedly by the authors, verging on what today we might call victim blaming. In one article, the author said that if the woman did not seek help, "she has no one to blame for the consequences but herself" (36). However, the women were not given much assistance other than being told to report immediately to their doctor if they found any lump. Some authors suggested biannual physician examinations, although this may have been too expensive for most women; even today, preventive services are underfunded. Only one article (36) described an early form of breast self-examination, but most authors implied that finding a lump was an accidental occurrence, often during bathing.

In two articles in the medical literature (44,45), the authors raised the possibility that nurses should be aware of inadequate physician care and to press for a second opinion although no evidence of this suggestion was found in the popular literature. Because there were few cancer clinics throughout the country during this period and most general practitioners held a fatalistic attitude toward cancer detection and treatment, it is not surprising to find this caution in the nursing and public health literature. A hint of this limitation was raised in the magazine stories of the two wealthy older women who described seeking additional care from nationally known experts, probably at great expense and against contrary advice.

Even today, many physicians do not believe that a baseline mammogram or annual mammography are necessary for women >50 years of age (3).

Although the medical literature, in contrast to the magazines, emphasized details of disease and care, many of the same myths were presented in both. The nurse's role was seen both as a patient advocate and as someone to serve the doctor, patient, and her family.

Many articles acknowledged that fear was an important barrier. Some magazines set out to personalize the experiences by using first-hand accounts of successful outcomes, thereby improving the image of survivors. Yet these women were among the elite, which causes one to wonder if the average women could relate to them. Perhaps these "tell-all" stories reinforced fears and denial for some, but they may also have helped to break down the conspiracy of silence. Roy (53) concluded that the fear of disfigurement, pain, and death has strongly influenced women's delay in seeking care to this day.

IMPLICATIONS

Popular magazines are one source of health information read by women today but it would be important to identify which methods are preferred by women of different ages, education, and racial/ethnic group because they may help lay the foundation of knowledge and beliefs that endure throughout their lives. Although it is difficult to prove the power of magazines in influencing attitudes and ideas, their impact can be seen in letters to the editor, polls, and requests for reprints (54). Recently, *Life* magazine (55) published an article on breast cancer survivors profiling famous and wealthy Hollywood actresses as well as ordinary women of different age, racial, and ethnic backgrounds. The former may attract an audience and sell the magazine, but the latter group provide stories that are more realistic and relevant to women in general and thus less likely to be dismissed or ignored by them.

Nurses could collaborate with editors of popular periodicals, as Dr. Penny Pierce did in an issue of *Prevention* magazine (56), to add their unique voices, ensuring consistent, accurate information while stressing the human side of breast cancer. Health-care providers play a significant role in mammography utilization and should publicize and reinforce adherence to mammography guidelines (57). We need to determine which magazines tend to be read by younger and older women and by minorities today and

tailor the messages to their needs and beliefs. We need to identify what other media are accessed by hard-to-reach groups and use these to augment personal, group, and community means of influence for cancer screening. Admittedly, other factors such as economic variables and health history are important predictors of screening utilization of older women, but stories and literature are mainstays for transmitting knowledge and can reach the public at large, politicians and their spouses.

This historical account, contained in popular and medical literature, of information on cancer and breast cancer for U.S. women and nurses during the period 1929–1949 has identified interesting similarities with the views expressed by older women today. The enduring nature of some beliefs and myths may reflect the complexity and incompleteness of our current knowledge regarding the nature of cancer and its treatment. But it also places older women's responses to cancer within a context of their historical experience. Moreover, this analysis may provide clues as to where and how we could improve our efforts at reaching older women at risk for breast cancer and helping them make informed, satisfying health-care choices. □

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