

RESEARCH COMMUNICATION

Breast Cancer Coverage in the Media in Malaysia: A Qualitative Content Analysis of Star Newspaper Articles

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Abstract

Background: The media play big roles in the public understanding of many health issues, and the information relayed to the public through the media clearly influences behavior. **Objectives:** The objectives of this study were to determine whether the content of articles on breast cancer in women published in the Star newspaper in 1997 differed from that of those published in 2007 and also to determine what factors may have caused any differences. **Methodology:** About 45 articles were identified for the year 1997 and 97 from the year 2007. Copies of the articles were obtained through the Star newspaper library. All the articles were read an initial time. The final sample for analysis consisted of 18 newspaper articles published in 1997 and 79 in 2007. Once data collection sheets were completed for all articles, the data were transferred to two spreadsheets and analyzed manually. **Results:** Living with breast cancer was the main theme of many articles in both years. Family history was emphasized as a risk factor in articles from 2007, while an inappropriate bra, electrical power lines, stress, smoking and alcohol were emphasized in 1997 as risk factors. In general, articles in 2007 focused on overall health practices, especially exercise, while in 1997, mammography was considered as the dominant prevention method. **Conclusion:** The content of the articles on breast cancer that were published in the Star newspaper in Malaysia in 1997 totally differed from that of those published in 2007. The differences seem to reflect social, political, and scientific occurrences over the period studied.

Keywords: Star newspaper - breast cancer articles - a qualitative study - Malaysia

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Introduction

A diagnosis with cancer usually comes with fear, confusion and loss that can be alleviated by simple, easy and strait forward information. Over recent years, information has increasingly been considered important in helping people to cope with cancer (Cassileth, 1980; Meredith et al., 1996).

Numerous studies have reported the continuing dissatisfaction with current information provision, both in terms of content and delivery mechanisms. Furthermore, the lack of timely and accurate information remains one of the two highest unmet needs of the woman with breast cancer. Given that information can play in an important part in patient empowerment and satisfaction (Girgis et al., 2000; Jenkins et al., 2001).

Breast cancer has touched the lives of countless people, yet many women have misconceptions about the disease. One of the most common sources for breast cancer information used by Malaysian women is the popular newspapers. Every day, women read facts about breast cancer, followed by messages telling them to get mammograms, perform breast self-examinations, exercise regularly, and maintain a healthy diet to reduce their risk of

developing breast cancer. Information about breast cancer such as risk factors, preventive measures, and findings of recent studies about the disease frequently appear in the media. The media play a large role in the public understanding of many health issues, and the information relayed to the public through the media often influences health behavior (Kreps and Viswanath, 2001; Kreps, 2003).

Health care consumers take a more active role in their health than ever before, and they show increased interest in health information published in popular literature (Moyer et al., 1995). The public views the media as an important source of information on science, health, and wellness issues (Houn et al., 1995; Andsager and Powers, 1999). Print media was one of the most common sources of information; followed by physicians (Meissner et al., 1992; Moyer et al., 1995; Kreps, 2003).

In addition, the concepts included in articles on breast cancer, studies on the sources mentioned in these articles were conducted by Andsager and Powers (1999) who studied the efficacy of news magazines and women's magazines framed breast cancer in the 1990s found that the two types of magazines mentioned similar types of sources of information. In both types of magazines,

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doctors were the most commonly identified source. Other studies also often mentioned journal articles as a source of information (Houn et al., 1995; Corbett and Mori, 1999). JAMA and the New England Journal of Medicine (NEJM) were among the most commonly cited medical journals (Houn et al., 1995).

Additionally, the issuing of a press release by a medical journal appear to increase the likelihood that a medical article receives press coverage (deSemir, et al., 1998). Researchers who studied press releases issued by seven high-profile medical journals write that press releases provide “an opportunity for journals to influence how the research is translated into news” (Woloshin and Schwartz, 2002).

Many women look to magazines as a source of health information (Freimuth et al., 1984; Johnson, 1997). The content of what people read in magazine articles is influenced by a variety of factors including societal conditions, political issues, and scientific advances. Prevention and risk factors are some of the most commonly discussed topics with regard to breast cancer (Moyer et al., 1995; Andsager and Powers, 1999; Corbett and Mori, 1999), with doctors and medical journals most frequently used as sources (Houn et al., 1995; Andsager and Powers, 1999). Studies have focused on how information on the disease is communicated and how the public responds to that information. The content of magazine articles on breast cancer merits study because most women consider breast cancer the greatest threat to their health (Covello and Peters, 2002) and many have misconceptions about the disease (Spittle, 1999). This is the first study in Malaysia aimed to determine whether the content of articles on breast cancer in women that published in the star Newspaper in 1997 differs from that of those published in 2007 and to determine in what ways the content differs and what factors may have caused the differences.

Materials and Methods

The term breast cancer term was used in search for the year 1997 and another for year 2007 conducted in the electronic archive of the Star newspaper, which located in Petaling Jaya, Malaysia. About 45 articles from a total of 45 articles were identified for the year 1997 and 97 articles from a total of 335 for the year 2007. Copies of the articles were obtained through the star newspaper library. All the articles were read an initial time. The total number of articles consisted of 45 newspaper articles published in 1997 and 97 newspaper articles published in 2007 were read once to ascertain its general idea and analyzed. During this initial reading, the main investigator made note of the themes, risk factors, preventive measures, and sources mentioned that seemed to appear most frequently in the set of articles as a whole. Based on the findings of the initial reading, a data collection sheet was designed, and each of the applicable articles was read a second time and analyzed for specific information. The coder underlined risk factors, preventive measures, and sources mentioned within each article. On completion of the second reading, information about each article was

recorded on the data collection sheet. The data collection sheet included identifying information such as the article title and the publication date. It also included a section in which the coder circled yes or no as to whether the article was a cover story. In this, same section of the data sheet, the coder circled yes or no as to whether the article included a personal story and whether the subject of the personal story was a well-known or famous person, such as a public figure or actress. If the person was well-known or famous, the coder filled in the name of that person. In addition, the data collection sheet included the following list of theme categories from which the coder selected the one theme that predominated in the article.

The coder selected of risk factors mentioned from the following: increased age, early menarche, exposure to environmental pollutants, family history, having first child after age 30, having no children, having a non-cancerous breast condition, heavy alcohol use (defined as 2 or more drinks per day by the American Cancer Society). Long-term HRT use (defined as 5 or more consecutive years by the American Cancer Society), late menopause and being of a certain race/ethnicity. Last, the coder selected all that applied from the following list of preventive measures: breast feeding, breast self-examination, clinical breast examination, healthful diet, limiting estrogen exposure, mammograms and tamoxifen. In this study, preventive measures included both actions to prevent the development of breast cancer and actions taken to reduce the likelihood that the disease would be fatal. For example, mammograms may identify the presence of breast cancer of the early detection to prevent women from dying of the disease. After data collection, the sheets completed for all articles, items listed in the other categories for theme, risk factors, and preventive measures were reviewed. If an item appeared in the other category three or more times, it became a new category. Once data collection sheets were completed for all articles and additional categories were established, the data were transferred to two spreadsheets, one for articles published in 1997 articles and one for those published in 2007. Themes, risk factors, preventive measures, and sources were compared to determine whether they appear to have changed in the last decade. The findings were considered in the context of socio-cultural, political, and scientific occurrences during and shortly before the period studied. These occurrences included scientific advances, changes in the incidence of breast cancer in some socioeconomic or cultural groups, and political decisions.

Results

A total of 18 articles on breast cancer were identified in 1997, and 79 (three times the number) were identified in 2007. Most of the articles in both years focused mainly on Chinese women, few articles that addressed Malays or Indian story.

The most common themes of the articles from 1997 and 2007 differed. The new themes, which noticed in 2007 and never mentioned in 1997 were (awareness, hypnosis before breast surgery, support group for breast cancer survivors and misconception about breast cancer).

However, performing mammogram mentioned in 1997 and never mentioned in 2007. However, in 1997, four articles on breast cancer in women and men appear as story (living with breast cancer) compared to 26 in 2007 which is the largest percentage of articles in both eras. The majority of those articles were described infamous Chinese women stories.

Eleven articles from 2007 were assigned to the risk factors of breast cancer theme category. One article in 1997 was classified in the risk factor of breast cancer theme category, followed by prevention, which contribute nine for 2007 and three for 1997. Followed by treatment were contributed nine for 2007 and one for the year 1997. Followed by awareness was contributed eight for 2007 and never mentioned in the year 1997.

Risk Factors

Similar themes of the risk factors included in the articles from 1997 and 2007 differed to a great extent. New risk factors were mentioned in articles in the year 2007 such as (work at night, left handed, dense breasts). Electric power line was the only risk factor mentioned in 1997 and never mentioned in the articles from 2007. In 2007, family history of breast cancer showed the most commonly mentioned risk factor was appeared nine times in the 2007 articles.

Obesity was the second most commonly mentioned risk factor, appearing nine in articles from 2007. Followed by drinking alcohol was appeared four in articles from 2007. The lowest risk factors appeared in 2007 were wearing a wrong bra, early menarche, late menopause, dense breast, left handed, stress and race. The highest risk factors mentioned in 1997 were wearing a wrong bra, living in a high electric power line, stress, smoking and drinking alcohol.

Prevention

The new preventive measures mentioned in 2007 were removing the non affected breast or breasts to avoid getting breast cancer and exposure to the sun at least 10 minutes a day not more than half an hour a day. In the articles from 2007, performing self breast-exam was the most commonly mentioned preventive measure, appearing in 12 articles, followed by exercise appearing in eight articles in 2007. The mammograms and healthful diet were appeared in seven articles in 2007. The lowest mentioned preventive measure was the following (soy, Olive oil, tumeric powder, meditation, remove the non cancerous breast, and clinical breast exam).

In the articles from 1997, the mammogram was the most commonly mentioned of preventive measures, which appeared in three articles. Followed by exercise, healthful diet and breast feeding were appearing in two articles. The lowest preventive measure was sun exposure, which mentioned in one article in 1997.

Sources Mentioned in Articles

Medical journals were more likely to be mentioned as a source of articles from 2007 than in articles from 1997. Those most commonly mentioned differed from 1997 to 2007. However, in 1997, only NEJM covered the topic.

Discussion

The content articles of the most popular English newspaper in Malaysia (The Star) on breast cancer topic in 1997 appeared to differ somewhat in terms of main themes, risk factors, prevention measures and sources mentioned in the articles from that of those published in 2007. The differences seem to reflect social, political, and scientific occurrence over the period studied. May due to the a lot of researches conducted in 2000s regarding breast cancer in all its aspects (risk factors, detection, prevention and treatment) and may due to the famous women bring up the issue such as ex-Prime Minister's wife and famous actress women. People are more influenced by and more likely to pay attention to risk messages concerning their health when a human interest story or case history is included rather than only medical or scientific data (Covello and Peters, 2002). The media often include the personal stories of women with breast cancer when reporting on the disease. The study on 1999 by Corbett and Mori found that media coverage of breast cancer peaked in 1974, probably because that year two prominent American women, Ford and Rockefeller told to the public, they had breast cancer and had undergone mastectomies. Women responded to media reports on Ford and Rockefeller by phoning cancer hotlines and scheduling mammograms in increased numbers (Corbett and Mori, 1999). Another study, including a content analysis of 74 breast cancer articles from women's magazines in 1990 to 1997, found that more than one-third included personal stories. The researchers found that the articles often discussed survival from a first person point of view, which they felt might invoke a greater response by the reader to the information contained in the articles. The information may motivate women to take preventive measures such as performing a breast self-exam or scheduling a mammogram. Articles that included a personal story tended to discuss risk factors, diagnosis, and treatment (Andsager and Powers, 1999).

Authors who included personal stories of breast cancer patients or survivors may be doing a favor to their female readers. Women usually tend to respond positively to the inclusion of personal stories, particularly those of well-known/famous women, and may be to apply the health advice included in the article to their own lives than if such stories were not included (Corbett and Mori, 1999). Often people are more influenced by a case history or a human interest story than by medical or scientific information (Covello and Peters, 2002).

Nearly four times on breast cancer appeared in 2007 than 1997. This increase might reflect the important of breast cancer among women, which is rank the 1st cancer among Malaysian women and considered more a mainstream health issue. According to a presentation by Public Services Division of the National Institutes of Health, breast cancer was already one of the most frequently searched for health topics in March 2000 (Lacroix, 2000). This study consistent with the pervious report about a 2000 internet search using the search engine Google to access English language web sites about breast cancer generated a list of approximately 600,000 sites

(Meric et al., 2002). In comparison, on September, 2004, the internet search for breast cancer using Google revealed approximately 5,230,000 English language web site about the disease. The lack of articles about breast cancer among Malays and Indian women is worth commenting on.

Family history as it relates to breast cancer risk received quite a bit of attention in the early 1990s. The high percentage of articles including family history as a risk factor may reflect the fact that breast cancer genetics was a productive field of research in the early 1990s. Since the early 1970s, King and others at the University of California at Berkeley had been working on locating BRACA 1 a breast cancer gene (Cowley, 1993; Olson, 2002). In 1994, BRACA 1 was cloned and sequenced by researchers at University of Utah (Olson, 2002). The emphasis on family history as a risk factor in some articles from 2007 may have done some women a disservice (Freimuth et al., 1984; Johnson, 1997). Contrary the belief of many women, breast cancer is not generally an interdicted disease (Cowley, 1993). The misconceptions many women have about heredity and breast cancer may cause some women to refrain from taking measures to reduce their risk of developing or dying from the disease (Lipkus, 2001).

Long-term HRT, heavy alcohol and smoking were some of the most commonly mentioned risk factors in articles from 2007. These factors are considered modifiable, meaning women can eliminate these certain behaviors that may increase their risk of developing breast cancer (ACS: Breast Cancer Facts & Figures 2003-2004). The inclusion of modifiable risk factors in health literature may empower women eliminate certain behaviors to reduce their risk of breast cancer. Having a mammogram was by far the third most commonly mentioned preventive measure in 2007. Although having a mammogram was among the preventive measures mentioned in articles from 1997. In 1996, the National Cancer Institute recommended that women should begin having annual mammograms at age 40 (Olson, 2002), which may have contributed to a lesser emphasis on mammography. Although mammograms are considered a valuable tool for the detection of abnormal masses in the breast, it is understood that mammography may fail to detect abnormalities in denser breast tissue (Loecher, 2003). In addition, techniques such as magnetic resonance imaging (MRI) are now used to locate breast cancer. Digital mammogram was mentioned in one article in 2007. Articles from 2007 focused on prevention in term of lifestyle- eating a healthful diet and exercising regularly were some of the most commonly mentioned preventive measures.

Much of the research on the coverage of breast cancer has discussed the inclusion of information on risk factors, often followed by information on prevention, such as steps that may be taken to reduce certain risk factors. Corbett and Mori found that coverage in the 1980s and 1990s focused primarily on possible causes of breast cancer, specifically a high-fat diet, family history of the disease, alcohol consumption, hormonal history, and "the breast cancer gene" (Corbett & Mori, 1999). Moyer and colleagues similarly found that breast cancer risk factors

were frequently included in media coverage in the early 1990s. New treatments for the disease and information on the benefits and risks of mammography were also prominent in media coverage during that time (Moyer et al., 1995). A comparison of how news magazines and women's magazines framed breast cancer in the 1990s identified prevention, risk factors, and personal stories as topics of coverage from 1990 through 1997 (Andsager and Powers, 1999). The inclusion of information on both risk factors and preventive measures makes sense, as preventive measures attempt to reduce risk factors. Furthermore, a study published in 1992 found that an important problem in cancer control is the public's lack of knowledge about the causes of cancer, including the topic of possible cancer prevention (Johnson et al., 1992).

Surveys indicate that many women overestimate their risk of developing breast cancer compared with other disease such as lung cancer or heart disease (Mosca et al., 2000; Duncan, 2001; Covello and Peters, 2002). Newspaper could be contributing to this misconception. Age is a known risk factor for breast cancer-women's risk of developing the disease increases with age. Few articles thoroughly addressed age as a risk factor, and even fewer included personal stories of women older than age 50. Most of the articles that included personal stories focused on breast cancer patients who developed the disease in their 30s and 40s. This portrayal is inaccurate given that the average of a women developing breast cancer between the age of 30s and 40s is about one in 252 and between 40s and 50s it's one in 68, compared with one in 25 between ages 70s and 80s (Matthews, 2004). Exposure to certain environmental factors, such as pesticides and toxins and their role in the possible development of breast cancer received less attention in 2007 and never mentioned in 1997. Research indicates certain environmental factors may cause breast cancer and the public deserve to be educated about those factors-especially if exposure is avoidable (Laden and Hunter, 1998; Lichtenstein et al., 2000).

This study analyzed the articles from the most popular English newspaper in Malaysia from 1997 and 2007. It would be worthwhile to analyze the coverage of the years between to gather additional data on trends in coverage. A comparison of breast cancer coverage in other forms of media such as magazine articles serves as a logical next step. An in-depth study of the coverage of well-known/famous women with breast cancer would likely prove quite interesting. For example, a comparison of the media coverage of the prime Minister's wife and other famous actress experienced with breast cancer could be conducted. Specifically, the research could look at which aspects varied with each individual.

It would also be worthwhile to evaluate the accuracy of information that appeared in news paper articles on breast cancer that were based on articles from medical journals. Similar studies have been conducted (Houn et al., 1995; Moyer et al., 1995) and could easily provide a foundation for such research using the articles collected in this current study.

References

- Andsager JL, Powers A (1999). Social or economic concerns: How news and cancer: Newspapers and the public interest. *J Commun*, **34**, 62-73.
- Cassileth B (1980). Information and participation preference among cancer patients. *Ann Inter Med*, **92**, 832-6.
- Corbett JB, Mori M (1999). Medicine, media, and celebrities: News coverage of breast cancer, 1960-1995. *J Mass Communi Quart*, **76**, 229-49.
- Covello VT, Peters RG (2002). Women's perceptions of the risks of age-related diseases, including breast cancer: Reports from a 3-year research study. *J Health Communi*, **14**, 377-95.
- Cowley G (1993). Sharper focus on the breast. *Newsweek*, **121**, 64.
- deSemir, Ribas, Revuelata G (1998). Press releases of science journal articles and subsequent newspaper stories on the same topic. *JAMA*, **280**, 294-5.
- Duncan VJ (2001). African American women's perception of the role of genetics in breast cancer risk. *Am J Health Studies*, **17**, 50-8.
- Freimuth VS, Greenberg, et al (1984). Covering Breast Cancer Facts & Figures 2003-2004.
- Girgis A, Boyes A, Sanson-Fisher RW, Burrows S (2000). Perceived needs of women diagnosed with breast cancer: rural versus urban location. *Aust N Z J Public Health*, **24**, 166-73.
- Houn, Bober, Huerta, et al (1995, August). Houts P, Rusenias I, Simmonds M, Hufford D. Information needs of families of cancer patients: a literature review and recommendations. *J cancer Eudc*, **6**, 225-61.
- Jenkins, Fallowfield, Saul (2001). Information needs of patients with cancer: results from a large study in UK cancer centers. *British J Cancer*, **8**, 48-51.
- Johnson, DJ (1997). Factors distinguishing regular readers of breast cancer information in magazines. *Women & Health*, **26**, 7-27.
- Johnson, DJ, Meischke, et al (1992). Cancer-related channel selection. *J Health Communi*, **4**, 183-96.
- Kreps GL (2003). The impact of communication on cancer risk, incidence, morbidity, morality, and quality of life. *J Health Communi*, **12**, 161-9.
- Kreps GL, Viswanath K (2001). Foreword. Communication interventions and cancer control: A review of the National Cancer Institute's health communication intervention research initiative. *Fam Community Health*, **24**, ix-xiii.
- Lacroix EM (2000). Health topics most hit March 2000. Retrieved 26 September 2004, from <http://www.nlm.nih.gov/pubs/staffpubs/lo/medlineplus/sld013.htm>
- Laden F, Hunter DJ (1998). Environmental risk factors and female breast cancer. *Ann Rev Public Health*, **19**, 101-23.
- Lichtenstein P, Holm NV, Verkasalo PK, et al (2000). Environmental and heritable factors in the causation of cancer-analyses of cohorts of twins from Sweden, Denmark, and Finland. *New Engl J Med*, **343**, 78-85.
- Lipkus IM (2001). Informing women about their breast cancer risks: Truth and consequences. *J Health Communi*, **13**, 205-26.
- Loecher B (2003). Missed diagnoses: What young women need to know. *Prev Med*, **55**, 114-?
- Matthews K (2004). Breast health and you. *Cooking Light*, **18**, 80-8.
- Meissner HI, Potosky et al (1992). How sources of health information related to knowledge and use of cancer screening exams. *J Community Health*, **17**, 153-65.
- Meredith C, Symonds P, Webster L (1996) et al. Information needs of cancer patients in West Scotland: cross sectional survey of patients views. *BMJ*, **313**, 724-6.
- Meric F, Bernstam, et al (2002). Breast cancer on the world wide web: Cross sectional survey of quality of information and popularity of websites. *BMJ*, **321**, 557-80.
- Moyer, Greener, Beauvais, et al (1995). Accuracy of health research reported in the popular press: Breast cancer and mammography. *J Health Communi*, **7**, 147-61.
- Mosca L, Jones WK, King KB, et al (2000). Awareness, perception, and knowledge of heart disease risk and prevention among women in the United States. *Arch Fam Med*, **9**, 506-15.
- Olson J (2002). *Bathsheba's Breast: Women, Cancer & History*. Baltimore, MD: The Johns Hopkins University Press. research. *Am J Public Health*, **85**, 1082-6.
- Spittle M (1999). Women remain confused about breast cancer. *BMJ*, **318**, 600.