

PROVIDING HEALTH INFORMATION TO WOMEN

The Role of Magazines

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Abstract

Objectives: We were interested in health coverage in women's magazines in the United States and how it compared with articles in medical journals, women's health interests, and women's greatest health risks.

Methods: We examined 12 issues of *Good Housekeeping* (GH) and *Woman's Day* (WD) and 63 issues of the *New England Journal of Medicine* (NEJM) and the *Journal of the American Medical Association* (JAMA). We tallied the most common health questions of women presenting to the University of Michigan's Women's Health Resource Center (WHRC) during the same period.

Results: Less than a fifth of the magazine articles dealt with health-related topics. Of those, a third dealt with diet, with the majority emphasizing weight loss rather than eating for optimal health. Few of the articles cited research studies, and even fewer included the name of the journal in which the study was published. In JAMA and NEJM, less than one-fifth of original research studies dealt with women's health topics, most commonly pregnancy-related issues, hormone replacement therapy, breast and ovarian cancer, and birth defects. At the same time, the most common requests for information at the WHRC related to pregnancy, fertility, reproductive health, and cancer.

Conclusion: The topics addressed in women's magazines do not appear to coincide with the topics addressed in leading medical journals, nor with women's primary health concerns or greatest health risks. Information from women's magazines may be leading women to focus on aspects of health and health care that will not optimize risk reduction.

Keywords: Women's health, Health communication, Mass media

The mass media (print, television, radio) provide health information to millions of American women every year. Studies have suggested that the media may provide the majority of health information for some women (5;9;12;17). Ninety percent of the women in one study cited the media as a main source of information about mammography (10), and 76% of the women in another study who reported knowing about osteoporosis and 66.5% of those who knew about hormone replacement therapy said that they got their information from women's magazines (5). Nearly 55% of women in one study said that articles in women's magazines about possible adverse consequences of oral contraceptives had significantly changed their perception of the safety of oral contraceptives and/or caused them to discontinue use (14).

In addition, a recent study of the way breast cancer was covered in women's magazines between 1929 and 1949 indicated that the coverage showed striking similarities to the present-day attitudes of women who came of age during that time period (2).

Research has suggested that popular magazines and other mass media outlets may offer opportunities for public health partnerships to promote health (4;8), providing what one researcher deemed "teachable moments" with regard to such things as cancer screening and prevention (7). Given the potential for magazine coverage to influence knowledge and behavior, as well as the fact that many women rely on popular magazines as a source of health information, we were interested in looking at how health information is presented in the text portion of two women's magazines with the highest circulations in the United States. We were interested in both the content of health coverage in women's magazines and methods used for presentation of health information. Specifically, messages that include explicit conclusions or recommendations are known to be more persuasive in eliciting desired behaviors than messages without such elements (13). We called such messages "behavioral directives," and we wanted to see if and how they were used in the health coverage in women's magazines. It has also been shown that comprehension of messages is more likely when multiple stimuli and interactive techniques are used (3). Therefore, we assessed the use of interactive techniques in the health-related text in women's magazines. In addition, we wanted to compare the health coverage in popular women's magazines with what medical journals reported during the same publication period. We were curious to find out if magazines were looking to medical journals as sources for their articles, and if so, whether they were doing so accurately. Finally, we wanted to look at how magazine coverage and journal reports compared to women's greatest health risks and most commonly expressed health concerns. Because this study was exploratory in nature, we did not specify *a priori* hypotheses.

METHODS

We examined a total of 12 issues of *Good Housekeeping* and *Woman's Day* published between January and June of 1997, focusing on the text of the magazines and excluding the advertisements. We focused on the text because our interest was in how magazine reporters and editors were presenting information, rather than how advertisers chose to portray products, services, or the models in the advertisements. *Good Housekeeping* and *Woman's Day* were chosen because they were among the top circulating women's magazines in the United States, with 5 million and 6 million annual subscribers, respectively, the vast majority of whom are middle-aged and older women (1). We tallied numbers of health- and diet-related articles, the percent of diet articles dealing with weight loss (defined as purposeful reduction of body weight not associated with ill health), the percent of articles including behavioral directives, the percent citing peer-reviewed journal articles, and the percent that included an interactive component. We enumerated the behavioral directives listed in each article and the types of interactive techniques used. Coding was done first by one of the authors (LOV), with reliability checks by another of the authors (CAM). In cases where the authors did not agree on how to code an article or piece of information, the third author (SSS) was consulted and the final coding decision was made by consensus. We included all articles with a primary emphasis on health, such as articles focusing on breast cancer screening or skin cancer prevention. In addition, articles that included health-related discussions (such as an interview with a celebrity who discussed using sunscreen as part of the interview) were also included.

We then examined a total of 63 issues of the *New England Journal of Medicine* (NEJM) and the *Journal of the American Medical Association* (JAMA) to determine what types of women's health studies were published during the corresponding time period. These two

medical journals were chosen for several reasons, including their notoriety, high circulation, and their weekly press releases, which increase the likelihood of their articles being highlighted in the popular press. We chose to compare magazine coverage to topics addressed in medical journals to see whether popular media were relaying new women's health research findings to their readers, and if so, were they doing so in a way that allowed readers to refer back to the original study in question. Since we looked at 6 months' worth of magazine coverage, we wanted to ensure that we included journals that would have been published far enough in advance of the magazine's publication date that their studies could have been picked up by the magazines. Thus, we looked at NEJM and JAMA from September 1996 (4 months prior to the first magazine issues studied) to April 1997 (2 months prior to the last magazine issue studied). We tallied the number of original research contributions per issue, the percent that dealt specifically with women's health, the type of women's health topics covered, and the study design of the women's health studies published. Again, coding was done first by one of the authors (LOV), with reliability checks by another of the authors (CAM). In cases where the authors did not agree on how to code an article, the third author (SSS) was consulted and the final coding decision was made by consensus.

Next, we tallied the most frequently asked health questions of women who presented to the Women's Health Resource Center (WHRC) at the University of Michigan during a portion of the same 6-month time period. Records were not available for the entire 6 months, so we limited our analysis to March through June 1997. The WHRC keeps written records of patient questions and requests for information. We used those records to generate a comprehensive list of all topics women have asked about at the WHRC, as well as a list of those most frequently mentioned topics. Again, coding was done primarily by one author (LOV), with a second round of coding done by another author for reliability purposes (CAM). Controversial coding decisions were made by consensus with input from the third author (SSS).

Finally, we compared National Center for Health Statistics figures (11) about the leading causes of morbidity and mortality among women in the United States with: a) the topics covered in the women's magazines we looked at; b) the research studies published in NEJM and JAMA; and c) the topics of greatest interest to women presenting at WHRC. We also compared the most commonly covered topics in women's magazines versus medical journals versus WHRC data.

RESULTS

Magazine Coverage

During the 6 months between January and June 1997, less than one-fifth of the articles in *Woman's Day* (18.7%) and *Good Housekeeping* (16.5%) dealt with health-related topics. Of the 57 health-related articles in *Good Housekeeping*, 38.6% dealt with diet and nutrition. In *Woman's Day*, 19 of the 57 health-related articles dealt with diet and nutrition (33.3%). In both magazines the majority of diet-related articles focused upon weight loss rather than eating for optimal health.

Weight loss was the single most common health-related topic found in both women's magazines (21.9% of all health-related articles). Weight loss was followed by fitness (14.9% of health-related articles), healthy eating (12.3%), children's health (7.0%), and hormone replacement therapy (6.1%). The "other" category, comprising single articles on topics such as migraines, eating disorders, acne, incontinence, over-the-counter medications, and vaginal pain, made up 11.6% of health coverage.

Almost two-thirds of the health-related articles in *Woman's Day* included behavioral directives (64.9%), and nearly half of those directives (46%) involved telling readers to check

with their doctors or otherwise interact with the healthcare system. Sixty-three percent of the health-related articles in *Good Housekeeping* included behavioral directives, and 36% of those directives involved telling readers to interact with the healthcare system. Other behavioral directives included such things as: get 8 hours of uninterrupted sleep each night, read the directions and warnings on all medications, ask for nutritional information on low fat entrees at restaurants, set mini-goals to stay motivated to lose weight, and consume at least 1,000 to 1,200 mg of calcium each day.

Seventeen of the health articles in *Good Housekeeping* cited recent research studies, but only 3 of those 17 (17.6%) included the name of the journal in which the study was published. Twelve of the health articles in *Woman's Day* cited research studies, but only three (25%) included the name of the journal in which the study was published. Most articles that mentioned studies did so generally, such as "A study conducted by researchers at the University of North Carolina. . ." or "a 1995 study of middle-aged women. . ." Even those that cited journal names did so without many specifics: "A 1995 study in the *Archives of Internal Medicine* analyzed the various methods people use [to help quit smoking.]"

Finally, both *Woman's Day* and *Good Housekeeping* used interactive techniques such as Q&A, reader quizzes, and "ask the expert" in 19.3% and 12.3% of health-related articles. Many of the interactive techniques were used with food- and diet-related articles, such as a Q&A about picking low fat items from fast food menus, "situation:solution" format for overcoming dietary temptations, and a quiz on how to trick your stomach into feeling full longer. Interactive techniques were also used with articles on exercise (such as a step-by-step, illustrated exercise guide that the reader was encouraged to get up and try), smoking cessation (Q&A with an expert about the various types of nicotine patches and gums), and mammography (Q&A with an expert about the right age to start breast cancer screening).

Medical Journals

There were 120 original contributions or clinical investigations published in the 32 issues of JAMA examined between September 1996 and April 1997. Of those 120, 21 (17.5%) dealt with women's health. Similarly, 131 original articles were published in the 31 issues of NEJM, of which 18 dealt with women's health topics (13.7%). The most common topics addressed in NEJM were pregnancy-related issues (e.g., trial labor vs. cesarean section, ectopic pregnancies, preeclampsia), breast cancer, ovarian cancer, and birth defects. The most frequently addressed topics in JAMA were hormone replacement therapy, pregnancy-related issues (e.g., prenatal folate levels, miscarriage, cesarean sections, adolescent pregnancy), and breast cancer. Figure 1 illustrates the topics covered in JAMA versus NEJM, and

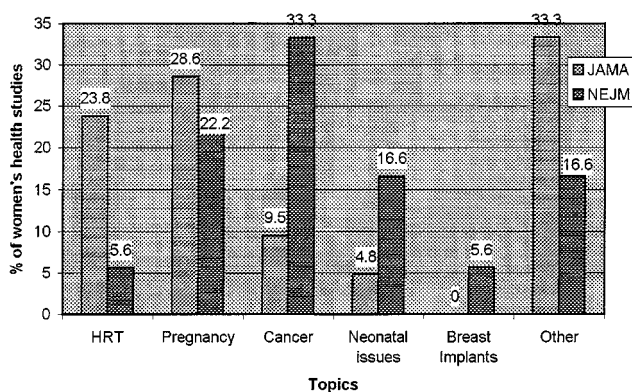


Figure 1. Topics covered in major medical journals, Sept. 1996–April 1997.

Table 1. Information Most Commonly Requested at the Michigan Women’s Health Resource Center, 1997

Topic	% of WHRC requests
Fertility	15.3
General reproductive health	16.8
Pregnancy	43
Cancer	9.9
Nutrition	5.9
Other	9.1

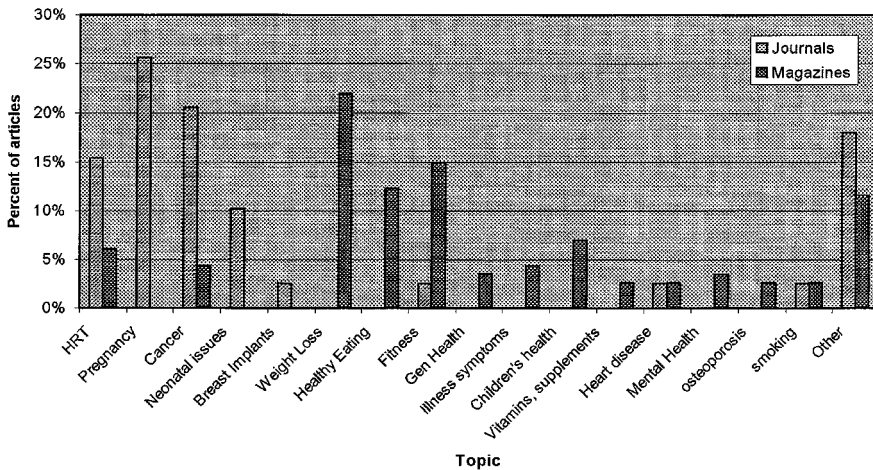


Figure 2. Topics covered by women’s health articles: women’s magazines vs. medical journals.

Figure 2 illustrates the most common topics covered in JAMA and NEJM combined versus *Good Housekeeping* and *Woman’s Day* combined.

WHRC Data

Between March and June of 1997, the WHRC processed more than 200 requests for information on various topics. The most common topics were pregnancy, fertility, reproductive health, and cancer (Table 1). Figure 3 compares the topics covered in medical journals versus women’s magazines versus requests for information from the WHRC.

Mortality and Morbidity Statistics for Women

According to the National Center for Health Statistics, the leading causes of death among women in the United States in 1990 were heart disease (nearly 360,000), cancer (240,000 overall; 51,000 from lung cancer and 43,000 from breast cancer), and stroke (87,000). At the same time, heart disease is listed as the leading cause of morbidity among women in the United States (16), with cancer, sexually transmitted diseases, hypertension, hyperlipidemia, excessive body weight, and cigarette smoking also significantly impacting the health of women (11). In 1997 there were more than 350 cases of sexually transmitted diseases and 352 cases of all cancers per 100,000 population. At the same time, 21% of women over age 20 in the United States have hypertension, 20% have high cholesterol, 49.9% are overweight, 25% are obese, and 23% smoke (11).

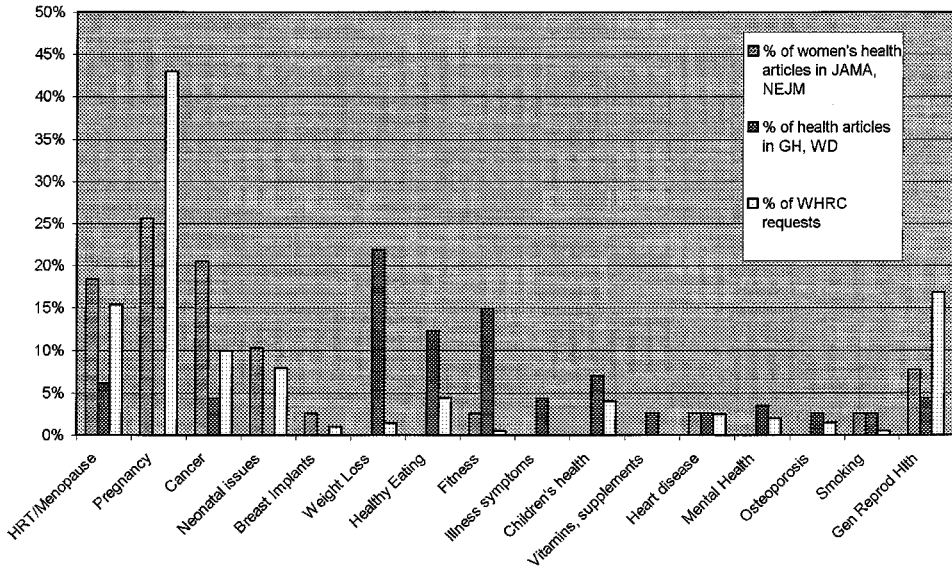


Figure 3. Most frequently addressed women's health topics: medical journals vs. women's magazines vs. Women's Health Resource Center.

In 6 months of coverage, the two women's magazines we looked at included very little coverage devoted to the top mortality risks for women: three articles on heart disease (representing 2.6% of health-related articles, 0.4% of all articles); five articles on cancer (4.4% of health-related articles, 0.77% of all articles); and no articles on stroke (0%). With regard to morbidity, magazines published a great deal on weight loss (35.9% of all health articles, 6.3% of all articles), with only a handful of articles addressing the other major causes of morbidity among women. There were no articles on sexually transmitted diseases, one article on hypertension, three articles addressing hyperlipidemia, and three articles focused on smoking cessation (combined percentage of health-related articles: 6.1%).

Medical journals published one women's health-focused article on heart disease (top mortality risk; 2.5% of 39 women's health articles), eight articles on breast and ovarian cancer (20.5% of women's health articles), and one article on stroke (2.5% of women's health articles). With regard to the top morbidity risks, medical journals published four original studies on sexually transmitted diseases (STDs) (10% of all women's health articles, 1.5% of all articles), no articles on hypertension, two articles on hyperlipidemia (5.1% of all women's health articles, 0.7% of all articles), no articles on obesity, and two articles on smoking (5.1%).

Requests for information about cancer at the WHRC (20, 9.9% of all requests) outweighed heart disease and stroke (0 requests each). Requests for information about the top morbidity risks for women were as follows: STDs (1% of all requests); hypertension (1% of all requests); hyperlipidemia or high cholesterol (0.5% of all requests); obesity (2% of all requests); and smoking (0.5% of all requests).

DISCUSSION

Although women have identified the media as an important source of health information, only about one-fifth of magazine coverage is devoted to health articles. Of these, weight loss for aesthetic purposes (not for improved health) appears to be the most commonly addressed topic, even in magazines targeting middle-aged and older women.

Women's magazines appear to be doing a good job of encouraging women to interact with the healthcare system and offering behavioral directives that suggest actions women can take with regard to their health. This is especially interesting given that the readership of the two magazines we looked at is composed largely of middle-aged and older women, the latter group traditionally considered more passive in interactions with healthcare providers. For example, one article in *Woman's Day* suggested that women should talk to their own physician about their particular health history and risk factors so they can determine the most appropriate course of action with regard to hormone replacement therapy (15). Similarly, an article in *Good Housekeeping* suggests that women under the age of 50 who are diagnosed with breast cancer should talk with their doctors about the possible benefit of prophylactic removal of the ovaries. Recommendations such as these that encourage women to engage their healthcare provider in a considered discussion over specific topics are an example of the value of women's magazines as a conduit for basic health information that women can then expand upon.

However, the magazines' propensity to omit the sources of research studies makes it difficult to assess the accuracy of their reporting. When articles describe research in terms of "a 1995 study of middle-aged women," it's difficult to trace the source and thus verify the article's claims. In some cases, such as an article citing "a 1995 study of 62,000 female nurses," it is clear to fellow researchers which study they are referring to (Nurses Health Study), but women without such knowledge are likely to have a much harder time identifying the source. It would be helpful if women's magazines would list the sources for studies or include an appendix at the back of the magazine with more information for readers, just as they include buying guides for fashion-related articles.

In addition, the majority of the articles do not address the greatest mortality risks faced by the women who make up their readership. Heart disease, cancer, and stroke—the leading causes of mortality among women in the United States—received very little attention in the two magazines we studied. These topics were discussed in 7% of health-related articles and 1.2% of all articles. Even among articles focused on diet, weight loss, and exercise (risk factors associated with heart disease and some cancers), disease prevention was rarely mentioned as the reason for exercising and eating well. When mentioned, cancer and heart disease were usually given a sentence or two. Similarly, factors associated with increased morbidity among women were given very little coverage. These results suggest that women's magazines may be leading women to focus on aspects of health and health care that will not optimize risk reduction or overall health.

JAMA and NEJM coverage suggests that medical journals are doing better than women's magazines in addressing women's top health risks, but not by much. Coverage of heart disease and stroke made up a very small percentage of the women's health articles, while cancer coverage represented nearly a fifth of all women's health-related studies. The medical journals included studies on morbidity risk factors such as sexually transmitted diseases, hyperlipidemia, and smoking, but the journals did not include any studies in the publication period related to hypertension or excessive body weight among women. Admittedly, medical journals are designed to disseminate novel research, not reiterate known risk factors or serve as patient education tools. Nonetheless, it appears that medical journals could be doing a better job of reflecting the most salient mortality risks for women.

Women's requests for information at the University of Michigan's WHRC suggest that women do not see heart disease and stroke as primary concerns. The most common requests for information (pregnancy, fertility, reproductive health, and cancer) may be reflective of the WHRC's location near the OB-GYN outpatient clinic at the University of Michigan Medical Center. However, these requests may indicate that women do not look to women's magazines for topic-specific health information, instead relying upon resource centers and other sources of health information. It is interesting to note that women's requests for

information more closely matched the topics covered by the medical journals we studied than the issues addressed in women's magazines.

Medical journals are aimed at informing physicians and researchers about novel findings in health care. This information may be difficult for women in the general public to use without interpretation. Women have expressed the use of women's magazines as a major source of health information, yet our study suggests that general-interest women's magazines are not publishing much on women's health. It is possible that there are more health-directed magazines providing this information. Nonetheless, our study raises several interesting questions worthy of further research: a) Do women look to women's magazines for health information? b) Does the health information in women's magazines supplement or substitute for information women might get elsewhere? c) Are there differences in health coverage among magazines aimed at teenagers, minority women, or older women? d) How might results differ if fashion magazines and health-specific magazines were included in our study? e) How would including advertising in an analysis like this one affect our understanding of the messages women are receiving in popular magazines? These and other questions illustrate the need for more research on the impact of the media on women's knowledge of health-related issues.

POLICY IMPLICATIONS

When discussing popular media such as women's magazines, it is important to remember that most media outlets in the United States and elsewhere are driven by the demands of their readers and, ultimately, profit. If a magazine is not meeting the needs of its audience, for example, it soon goes out of business as its circulation figures drop. In addition, in the United States freedom of the press is constitutionally guaranteed. In such a context, policies impacting the type and content of health coverage in women's magazines would be difficult to implement or enforce. Nonetheless, media watchdog groups could encourage magazine editors to cite the sources of their health-related articles, including medical journal citations. They could also suggest that magazines publish lists of additional resources for readers who want more than a few paragraphs on a topic. Finally, media watchdog groups could do an annual evaluation of magazines publishing the most comprehensive health articles and reward those magazines that take the time to present health topics thoroughly and place them in the greater context of existing research literature.

Given the limited opportunity to use policy to change the media's health coverage, healthcare providers and policy makers should be aware of the role of women's magazines in impacting upon existing health policies and recommendations. As an example, the Healthy People 2000 guidelines set forth by the Centers for Disease Control and Prevention suggest several nationwide objectives, including such things as reducing the number of heart disease deaths to no more than 100 per 100,000 people annually, reversing the rise in cancer deaths to achieve an annual rate not exceeding 130 per 100,000 people, and reducing the number of annual stroke deaths to no more than 20 per 100,000 people (6). While physicians and other healthcare providers may be working to meet such objectives, women who receive much of their health information from women's magazines may have a different agenda when they arrive at their physician's office—possibly one reflective of the magazines' health coverage. This may make the healthcare provider's job more difficult, as in the case of a 50-year-old smoker who is very concerned about her fat intake but who has never considered smoking cessation nor has undergone the recommended cancer screenings for her age. As discussed, our study indicates that the information in women's magazines does not always focus on the greatest health risks for women. However, the information does appear to encourage further interactions with the healthcare system. This combination may serve to impede or facilitate adherence to existing health policies or recommendations. Our study suggests

that physicians and other healthcare providers need to be aware of the many sources of health information to which women turn, and that the topics of greatest import in terms of morbidity and mortality may not be those women are most concerned about.

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