The Woodhull Study Revisited: Nurses' Representation in Health News Media 20 Years Later

Diana J. Mason, PhD, RN, FAAN[1], Laura Nixon, MPH[2], Barbara Glickstein, MSN, MPH, RN[3], Sarah Han, BA[4], Kristi Westphaln, PhD, RN, CPNP-PC[5], & Laura Carter, MPH[6]

1 Senior Policy Service Professor, George Washington University School of Nursing, Center for Health, Policy and Media Engagement, Washington, DC, USA
2 Senior Media Researcher, Berkeley Media Studies Group, Berkeley, CA, USA
3 Health Media Consultant and Journalist; formerly Director of Communications and Media Projects, George Washington University, Center for Health Policy and Media Engagement, Washington, DC, USA
4 Research Associate Research Associate, Berkeley Media Studies Group, Berkeley, CA, USA
5 Postdoctoral Research Fellow, Case Western Reserve University, Center for Child Health Policy, Cleveland, OH USA
6 Research Associate, Berkeley Media Studies Group, Berkeley, CA, USA

Abstract

Purpose: To determine if nurses are represented in health news stories more frequently today than 20 years ago when Sigma Theta Tau International Nursing Honorary Society published The Woodhull Study on Nursing and the Media, which found that nurses were cited as sources in only 4% of the stories.

Design: Content analysis of health news stories for the month of September 2017 in the same publications used in the original Woodhull study.

Methods: Searches with Nexis and Webhose identified 2,243 articles related to health care published by the news outlets in September 2017. A random sample of 537 of these articles was obtained: 258 from seven newspapers, 127 from three weekly newsmagazines, and 152 from three health industry publications. After removing irrelevant articles or those with only passing references to health, 365 articles were reviewed and coded, using the original study's coding schema.

Findings: Nurses were identified as the source of only 2% of quotes in the articles and were never sourced in stories on health policy. When quoted, nurses mainly commented on the profession itself. Nurses or the nursing profession were mentioned in 13% of the articles. Nurses were identified in 4% of photographs or other images that accompanied the articles.

Conclusions: Nurses remain invisible in health news media, despite their increasing levels of education, unique roles, and expertise.

Clinical Relevance: Nurses' clinical expertise is accompanied by unique perspectives on health, illness, and health care; but the public is not benefiting from the wisdom and insight that nurses can provide in health news stories.

In 1998, Sigma Theta Tau International (STTI) Nursing Honorary Society published *The Woodhull Study on Nursing and the Media: Health Care's Invisible Partner* (STTI, 1997), examining nurses' representation as sources in health news stories in leading print publications of the day. The study found that nurses were identified as sources in only 4% of quotations and other sourcing. Nurses were invisible in public news media.

Thirteen years later, the Institute of Medicine's (IOM's) report on *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2011) brought attention to the importance of nurses in transforming health care and improving the health of the public. The Campaign for Action was launched at the same time to generate strategies for ensuring movement on implementation of the report's recommendations. Progress has already

been documented on improving the education of nurses, removing barriers to full practice authority by advanced practice nurses, and increasing the number of nurses appointed to boards and other policy-related entities (Future of Nursing: Campaign for Action, 2018).

Given these advancements, are nurses being recognized as experts on health, health care, and policy more frequently than in the past? To what extent has nurses' representation in health news media improved over the past 20 years? This article presents the findings of a replication of the original Woodhull study.

Background

News media play an important role in setting the agenda for the public and policymakers (Gardner, Glickstein, & Mason, 2016; McCombs & Shaw, 1972). The news determines what issues people think about and how they think about them (McCombs & Reynolds, 2009). The agenda-setting role of media is represented in the selection of topics to be covered. Issues that are seldom covered in the news are often absent from the public discourse. "Framing" includes topic selection but goes beyond agenda setting. It entails the way a journalist organizes, presents, and assigns meaning to an issue, thus providing people with a way to think about it (Entman, 1993; Scheufele & Tewksbury, 2007).

A particular interpretation of an issue can be embedded in the minds of the public by multiple replications of a frame that uses words and symbols connected with cultural associations familiar to many of the recipients (Entman, Matthes, & Pellicano, 2009). Framing becomes a powerful tool to shape how society thinks about an issue.

Framing of a news story can start with the editor who assigns a story to a journalist, but the sources the journalist relies upon can shape that frame. Sources often reflect the larger power dynamic of society, and sources in positions of authority may lend credibility to a news story (Berkowitz, 2009). When reporters rely on such sources repeatedly, these sources will be more likely to get their voices into the news and can have substantial power over how issues are framed.

Berkowitz (2009, p. 109) asks, "Who gets a voice [in the media]?" Women have long been underrepresented as sources in news media. The Global Media Monitoring Project has tracked women's representation in news media in newspapers, television, and radio since 1995, and more recently, in online media, in an increasing number of countries (World Association for Christian Communication, 2015). In 1995, the

Project reported that women were represented in 17% of news stories; in 2015, this percentage had increased to only 24%.

Nursing remains 90% women. Does nurses' representation as sources in health news parallel women's representation in general news?

In the 1990s, Nancy Woodhull, a founding editor of USA Today, was an internationally known advocate for diversity in news coverage concerned about women's underrepresentation (Sieber, Powers, Baggs, Knapp & Sileo, 1998). She became interested in nurses' representation in health news after a nurse was instrumental in Woodhull being correctly diagnosed with lung cancer in 1996 (William Watson, personal communication, May 28, 2018). Woodhull had been involved in designing studies of women's representation in news media and worked with Junior Bridge, a communications consultant, to use a similar design for a study of nurses' representation in health news media. Woodhull died in April 1997, before the study was completed.

The 1997 Woodhull study was conducted at the University of Rochester School of Nursing and directed by Bridges, then Dean Sheila Ryan, and faculty member Jane Kirschling. They worked with nursing students to analyze health news articles published in September 1997 in leading print publications: 1,709 articles from two national and five regional newspapers, 142 from four weekly news magazines, and 381 from five healthcare industry trade publications. Nurses were identified as sources in only 4% of all quotations or other sourcing in newspaper stories, and in 1% of those in stories from news magazines and industry publications. Physicians and dentists were sources in 43% of newspaper articles, 30% of news magazines, and 18% of industry articles. In addition to examining the extent to which nurses were quoted in healthcare articles, the study also examined how often nurses or the nursing profession were mentioned. Nurses were mentioned in only 10% of newspaper articles, 2% of weekly news magazines, and 8% of industry articles. They were never included in stories about policy. Nurses were identified in less than 1% of photos and images that accompanied newspaper stories. Women, whether nurses or not, provided only 25% of the quotations.

After the study was published, STTI responded to the report's recommendations by disseminating the findings at its regional meetings at which local journalists were invited to comment. STTI also developed a media experts directory to provide journalists with source for identifying nurse experts on a variety of topics.

As women's representation in news media and newsrooms has increased (Women's Media Center, 2017)

and as the *Future of Nursing* report (IOM, 2011) has elevated awareness of the importance of nurses to transforming health care, we sought to replicate the original Woodhull study to examine whether nurses' representation in health news media has improved. Specifically, we sought to answer the following question: Are nurses represented as sources and identified in photos in health news stories in public and trade print publications with greater frequency than in 1997?

Methods

The original Woodhull study was designed to analyze the portrayal of nurses and nursing in healthcare-related news coverage (e.g., stories about the business of health care, healthcare responses to disease outbreaks, managing care for AIDs patients, health policy, workforce issues, etc.) in newspapers, newsmagazines, and healthcare industry trade publications. The present study replicated this design as closely as possible.

Sample Selection

For the current study, we collected healthcare-related articles from the same news outlets used by the original study 20 years earlier, except those that were no longer being published (*Healthplan, Business & Health*), or for which online archives were difficult to obtain (*BusinessWeek*, now *Bloomberg BusinessWeek*).

In the original Woodhull study, coders read print copies of the selected news outlets and identified healthcare-related articles by hand. For the current study, we used key word searches to identify healthcare-related articles, and then coded a random sample of those articles (excluding those that were found to be irrelevant).

We used the Nexis newspaper database to conduct a keyword search for articles published in September 2017 in the following U.S. newspapers: *Chicago Tribune*, *The Rochester Democrat and Chronicle*, *The Indianapolis Star*, *The New York Times*, *Tampa Bay Times* (formerly *The St. Petersburg Times*), *The Seattle Times*, and *USA Today*.

We then used Webhose, a news webscraping tool, to collect stories from the following magazines and healthcare industry publications: U.*S. News & World Report*, *Newsweek*, *Time*, *Modern Healthcare*, *American Medical Association Wire* (formerly *American Medical News*), and *Hospitals & Health Networks*.

In Nexis, we searched for articles that were tagged with a healthcare subject, or included related key words. In Webhose, we searched for articles that contained healthcare-related key words. These key words included terms such as healthcare, health care, patient care, health insurance, outpatient, medical, medicine, hospital, and diseases.

In order to generate a robust sample for each type of publication, we arranged the articles in chronological order, and then selected a random 20% sample of newspapers (selecting every fifth article), 20% sample of magazines (selecting every fifth article), and 50% sample of healthcare industry publications (selecting every other article, as this type of publication had the fewest articles).

The study team divided the articles into three groups by publication type. We removed from the sample irrelevant articles and articles that made only passing references to health or health care. For example, we excluded an article primarily about federal policy to reduce greenhouse gas emissions from power plants that also mentioned political plans to "repeal and replace the Affordable Care Act (ACA), President Barack Obama's signature health plan" (Friedman, 2017).

Coding and Analysis

We used the same coding variables from the 1997 study, which were the type and subject of the article, the profession and gender of speakers, and the number of times nurses were referenced or mentioned without being quoted. We also recorded the number of quotes per article for all professionals that were quoted. In order to identify nurses, we examined speakers' descriptions, titles, as well as any nursing credentials (e.g., RN, NP).

Before beginning the coding process, one of the original researchers from the 1997 study read and analyzed a subsample of the current articles, as did the current coding team, and they compared results.

The current coding team then established intercoder reliability with Krippendorff's alpha using an iterative method (Altheide, 1987) of reading subsamples of articles and coding them until we reached an acceptable level of agreement among the coders (Krippendorff's alpha $\geq$ .8 for all variables; Krippendorff, 2008).

Another researcher conducted an additional qualitative analysis of a random sample of 60 articles in order to identify stories where the topics under discussion were relevant to nurses' expertise and clinical experience, but nurses were not used as sources.

We also analyzed the photos and other images that accompanied relevant articles from the sample according to the coding variables from the original study. The photo coding variables included the gender and profession or role of the individuals pictured. Photos that were unrelated to health or health care were excluded. For articles featuring more than one photo or image, only the first image that appeared was coded.

After one trained coder analyzed all the relevant photos, a second coder on the team reviewed the codes and noted any disagreements. The full coding team then met to resolve the disagreements.

For the comparison of the 1997 and 2017 data on using nurses as sources for quotations, we used a two-tailed difference in proportions test.

Results

A total of 2,243 healthcare-related articles were extracted from the search of news outlets, including 1,285 from newspapers, 646 from magazines, and 322 from healthcare industry publications. After taking a random sample of articles, our sample consisted of 258 articles from seven newspapers (20% sample), 127 articles from three newsmagazines (20% sample), and 152 articles from three healthcare industry publications (50% sample), for a final sample of 537 articles. After removing irrelevant articles and those with only passing references to health or health care, the final sample for the study was composed of 365 articles that met the criteria for analysis (152 newspaper articles, 53 magazine articles, and 160 healthcare industry articles).

The vast majority of healthcare stories were straight news articles (84%). The remaining stories were commentaries, including op-eds and columns (8%), editorials (4%), letters to the editor (3%), and blogs (1%).

Topics in Healthcare News

Figure 1 presents the most common topics covered in the articles we sampled. Almost one in three healthcare stories focused on some aspect of healthcare policy (31%). Much of the news about healthcare policy at this time was centered on efforts to reform or repeal the ACA (76% of policy articles). During the time period we studied, a Senate bill proposed by Senators Lindsey Graham and Bill Cassidy generated a high volume of news coverage, particularly in newspapers and newsmagazines. A contentious political issue, healthcare reform showed up in both news and opinion pieces (68% of news and 32% of opinion). Indeed, the majority of editorials and letters to the editor in our sample were about efforts to reform the ACA (69% of editorials and 64% of letters to the editor).

Public health issues were another common topic for healthcare stories during this time, especially in newspapers and newsmagazines (18% of articles in newspapers, 21% of those in magazines, and 8% of those in healthcare publications). In addition to coverage of issues such as disease outbreaks and vaccines, a number of stories reported on the public health ramifications of hurricanes and tropical storms in the United States and the nearby Caribbean. Stories in the aftermath of Hurricanes Harvey, Irma, and Maria discussed the disaster responses by healthcare systems and facilities and the consequences on vulnerable patient populations, such as the elderly.

Coverage in healthcare industry publications had a particular focus on healthcare quality (16% of articles in healthcare publications vs. 9% of articles in both newspapers and magazines). There were several stories, for example, that discussed the merits of different quality metrics and reporting systems and their effects on patient care. Healthcare industry publications were also more likely to publish stories about the business of health care, with reporting on acquisitions and investments affecting for-profit hospital systems, medical centers, and the like (15% of articles in healthcare publications vs. 5% of those in newspapers and 2% of those in magazines).
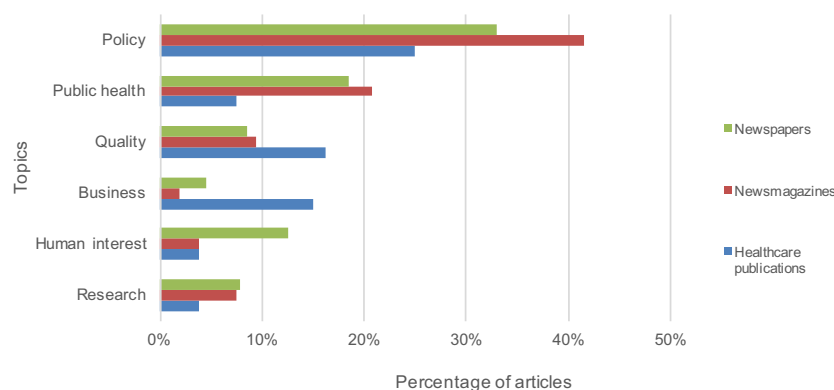

Figure 1. Most common topics in healthcare news in newspapers, newsmagazines, and healthcare industry publications, September 2017 (*n* = 365 articles). Topics not pictured here are Labor, Profession, Pharmacology/pharmaceuticals, Economics, Education/training, Management, and Other as each of these were in less than 5% of articles analyzed.

Gender in Healthcare News

Men were quoted approximately twice as often as women in healthcare stories (66% vs. 34% of quotes) and were particularly dominant as sources in stories about healthcare management, the business of health care, health policy, and healthcare costs and finances (Figure 2).

Men were also more likely to author healthcare stories: among articles with bylines, 52% were written by men, 42% by women, and 6% by both men and women. Men were especially likely to write articles about healthcare policy, healthcare management, and the pharmaceutical industry, while women were more likely to write articles about healthcare professions, public health topics, and human interest topics (such as profiles of individuals or personal health tips). Female authors were somewhat more likely to include women as sources in their articles: in articles written by women, 39% of the sources were women, compared to 32% of sources in articles by men.

Sources in Healthcare News

As in the 1997 study, we examined which groups of key stakeholders were quoted in healthcare news. In our sample, policymakers accounted for nearly a quarter of quotes in healthcare stories (24%), reflecting the focus on healthcare policy during this time. The majority of quotes from policymakers appeared in articles about healthcare policy, particularly the ACA, although a quarter of their quotes appeared in articles about other topics.

Physicians made up 21% of quotes in healthcare stories (13% in newspapers, 19% in magazines, and 29% in healthcare publications). The majority of quotes from physicians came from individuals who were identified as being in some kind of leadership or executive role, such as medical directors or chief medical officers (70% of physicians). For example, one article quoted the medical director for the National Foundation for Infectious Diseases in a story about the particularly harsh flu season and need for flu vaccination.

Other sources that were commonly quoted included healthcare executives or administrators who were not identified with any clinical title (10% of quotes) and researchers working on healthcare-related topics (9% of quotes). Patients or their families accounted for 4% of quotes in healthcare stories. Other sources included paraprofessionals, other healthcare professionals such as psychologists, nonmedical hospital workers, and spokespeople for advocacy groups or foundations.

Nurses were identified as the source of only 2% of quotes in healthcare articles (2% in newspapers, 2% in magazines, and 1% in healthcare publications). Only eight articles in total included quotes from nurses,
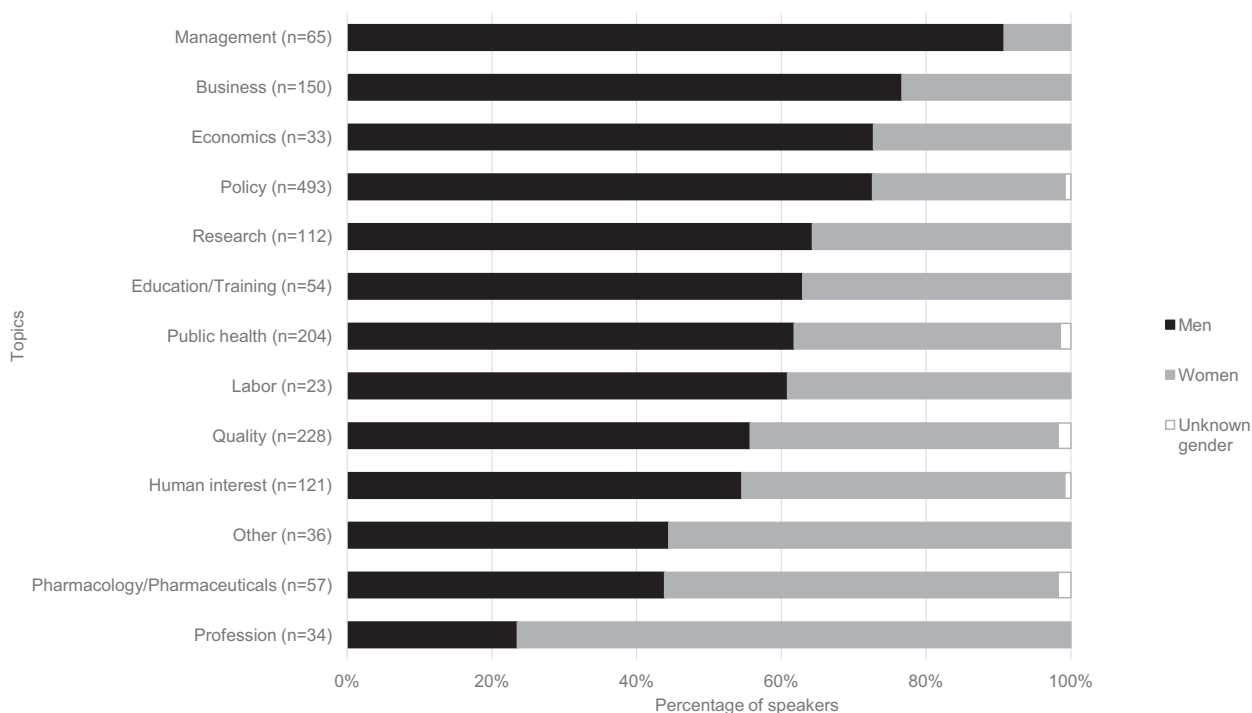

Figure 2. Gender breakdown of sources in healthcare news by article topic, September 2017 (*n* = 1,604 quotes).

and these articles appeared exclusively in straight news articles—nurses' voices did not appear in any opinion pieces.

When nurses were quoted, they mainly commented on the nursing profession itself, and were rarely used as sources based on their expertise or knowledge of broader healthcare topics. Most of the quotes from nurses were along the lines of comments from Pam Cipriano, President of the American Nurses Association, in an article about the workplace dangers faced by nurses: "There has been an erosion of respect... . We have to dispel that notion that being assaulted is just 'part of the job'. It is not" (Dvorak, 2017). Like most of the quotes from nurses in our sample, Dr. Cipriano's comments were focused exclusively on nurses' experiences. Several of these articles related to a controversial July 2017 incident in which Utah police arrested a nurse who refused to violate hospital policy in order to draw blood from an unconscious patient.

Nurses were only quoted about issues beyond the nursing profession in a handful of articles in our sample. An article that recounted Florida hospitals' evacuation efforts during a hurricane, for example, included quotes from a hospital's chief nursing officers describing the process of implementing their disaster plan:

> "'We wanted people to have clear roles and understand who was responsible for what,' said [Assistant Chief Nursing Officer Rebecca Smith]. They also had already identified which patients were at high risk for developing complications during transport. 'We were able to have seamless communication and have people ready for any conditions that the patients were experiencing'"

(Arndt, 2017). Nurses were never used as sources in articles about healthcare policy, or articles about healthcare management, the business of healthcare, or healthcare research.

We found there were numerous instances where nurses' voices and opinions were absent despite the fact that their perspectives were highly relevant to the particular topics of discussion. An additional analysis of a random sample of 60 of the articles found that the perspective of a nurse would have been germane to the story in at least 33 of the articles. For example, for a story on potential cuts in funding for community health centers, a nurse could have provided views on what the cuts would mean for both staff and patients (Dickson, 2017). On policy articles that addressed potential cuts in insurance coverage under the ACA, a nurse could provide examples of what happens to patients who

are uninsured or how patients benefited from the expanded coverage the ACA provided. Even articles on the business of health care could have benefited from including a nurse as a source. For example, a chief nursing officer could have provided insight into the changes in care delivery or other factors related to staffing and patient care in an article on the slowed rate of hospital spending (Barkholz, 2017). One story focused on Swedish Medical Center regaining its Medicare status after significant breaches in patient safety and oversight (Baker, 2017). Nurses had played a role in blowing the whistle on the problem, but none were included as sources for the follow-up story.

Discussion of Nurses and Nursing in Healthcare News

In addition to examining the extent to which nurses were quoted in healthcare articles, we also counted how often nurses or the nursing profession were mentioned. Nurses or the nursing profession were mentioned in 13% of healthcare articles (14% of those in newspapers, 4% of those in magazines, 14% of those in healthcare publications). Nurses were most likely to be mentioned in articles about labor or professional issues in healthcare: nurses were mentioned in 57% and 44% of these types of stories, respectively. Nurses also were mentioned in almost one in three articles about healthcare quality (32% of articles), and one in four articles about education or training in health care (25% of articles).

Discussions of nurses and nursing were very rare, however, in stories about some of the most commonly covered healthcare topics. Nurses were mentioned in only 4% of articles about health policy (and, as mentioned above, they were never quoted in any health policy articles). Similarly, nurses were only mentioned in 3% of articles about the business of health care, and were mentioned in fewer than one in ten articles about healthcare research (9%).

When nurses were mentioned in healthcare articles, they usually were described in positive or neutral terms. In an article about the controversial arrest of a Utah nurse, for example, a hospital spokesperson commended the nurse, Alexandra Wubbels, for her conduct: "[University of Utah Health] is proud of her decision to focus first and foremost on the care and well-being of her patient.... She followed procedures and protocols in this matter and was acting in her patient's best interest" (Mele & Victor, 2017). In another article describing research on healthcare teams, the addition of a nurse practitioner and registered nurse

was described as improving the management of chronic conditions and reducing reliance on the emergency room (Aguilar, 2017).

However, of the 48 articles that mentioned nurses or nursing, there were a handful that contained negative or potentially problematic references to nurses, particularly in trade publications geared toward physicians. In an article in *AMA Wire* about the experiences of female physicians, for example, female physicians who were mothers reported being "treated with disrespect by nursing and other staff" (Berg, September 21, 2017). In another article in *AMA Wire* about the role of bias in patient satisfaction scores, a female physician complained of being seen as a nurse by her patients: "That prejudice exists and can get old after a while," she added.

> "I'm 11 years into my practice and I still get the question, 'Nurse, can you get my doctor?' It has helped to have a few white hairs and an older face, but I continue to be called a nurse. It makes me wonder whether this bias, as opposed my competence, may sometimes influence my patients' satisfaction scores"

(Berg, September 18, 2017). While these comments reflect valid concerns about gender bias toward female physicians, the assumption that to be seen as a nurse is inherently undesirable or degrading is likely an indication of stigma around the nursing profession.

Photos

Of the 365 relevant articles in the sample, 281 articles were accompanied by photos or other images. After removing photos and images that did not picture people and those that were not related to health care, 256 photographs and images were included in the analysis (Table 1). Results of the content analysis paralleled the

Table 1. Roles of People Identified in Photos Accompanying Reviewed Articles

Role	*n*	%
Policymakers	57	34
Patients/families	41	25
Others	35	21
Unidentified clinicians	25	15
Physicians	16	10
Nurses	6	4
Educators	3	2
Researchers	4	2
Celebrities	4	2
Paraprofessionals	2	1
CEOs/administrators	1	1
Nonmedical health care	0	0

findings from the print media analysis. The healthcare-related photographs and images were dominated by the men (73%); women appeared in 48%. The most predominant roles or professions depicted in the sample included policymakers (34%), patients and families (25%), and unidentified clinicians (15%). Only 4% of the total sample featured photographs or images of nurses.

1997 Study Comparison

In 1997, researchers found that nurses were rarely quoted: they made up only 4% of quotes in newspapers, 1% of quotes in newsmagazines, and 1% of quotes in healthcare publications. In September 2017, nurses accounted for 2% of quotes in newspapers, 2% of quotes in newsmagazines, and 1% of quotes in healthcare industry publications. The differences in the 1997 and 2017 data were not statistically significant. (The p values for a two-tailed difference in proportions test comparing the proportion of quotes by nurses in 1997 and 2017 were: newspapers, $p = .25$; newsmagazines, $p = .66$; and healthcare publications, $p = .64$.)

Discussion

News media are powerful shapers of what people in a society believe to be important and how to think about issues. Journalists' sources have the opportunity to frame a story and provide an interpretation of ideas and events that can influence people's beliefs and actions. In addition, sources who are identified or quoted in a news story are often viewed as authorities on a topic. While women have been underrepresented as sources in news stories, this has improved over recent decades. Unfortunately, the present study found that nurses' experiences as sources do not parallel those of women, in general. Twenty years after the original Woodhull study, nurses remain invisible in news media. Nurses are not quoted as sources any more frequently than in 1997.

In September 2017, nurses were identified as sources in only 2% of all quotations or other sourcing in healthcare-related articles from select newspapers, weekly newsmagazines, and industry publications, suggesting that nurses do not have many opportunities to frame news stories, despite their unique positions within the healthcare system, their breadth and depth of experience, and their holistic, patient-centered orientation. As in the 1997 study, we found that quotes from nurses were more likely to appear in stories about healthcare quality and healthcare professions. The proportion of articles in which nurses were mentioned was also roughly similar: in 1997 nurses were mentioned in 9% of healthcare news articles, and in 2017 they were mentioned in 13%.

There were some similarities in the distribution of topics in the 1997 and the 2017 studies. For example, we found that healthcare industry publications were more likely than newspapers or magazines to publish articles about the business of health care in September 2017, and this was also the case in the 1997 study. Compared to the 1997 study, there was a higher proportion of stories about healthcare policy in September 2017, in large part due to Congress' highly publicized efforts to reform or repeal the ACA. Nonetheless, nurses remain absent as sources from stories about healthcare policy.

In the original Woodhull study, physicians were the most prevalent source in healthcare stories, followed by policymakers. In our study, policymakers were the most frequently quoted, followed closely by physicians. This shift could be due to the high levels of coverage of ACA reform and repeal efforts at the federal level in September 2017.

The original Woodhull study found that women accounted for 25% of quotes in healthcare articles. In our study, women comprised 34% of quotes—a modest increase, despite the fact that women are now dominating the student bodies of schools of journalism and their representation in newsrooms has increased (Women's Media Center, 2017). In 1997, researchers found that men outnumbered women as article authors, a trend that continued in 2017.

While medicine and journalism have both increased the proportion of women engaged in these professions, nursing remains 90% female. The profession continues to be plagued by outdated stereotypes and is poorly understood. This was evident in a qualitative study of health journalists' experiences with using nurses as sources (Mason, Glickstein, & Westphaln, 2018). Ten health journalists participated in semistructured interviews about the barriers and facilitators to using nurses as sources. An overriding theme was that biases about nurses persist among journalists, newsrooms, and public relations staff in healthcare organizations and universities. The journalists admitted to not understanding the roles, work, and education of nurses, and said that they often have to justify to editors their use of nurses as sources for stories. They don't know how to find nurses when they need them, and nurses and nursing associations have not been proactive in pitching nurses' research and clinical expertise to journalists.

Nurses are seldom referred to in health news stories, even though they may be germane to the topic and can add important perspectives, particularly about people's experiences with health, illness, and health care. They are almost never sourced in articles on policy, despite a growing number of nurses engaged in health services research and policymaking. Nurses can also speak authoritatively about the impact of policy changes on people, including what happens when patients have no health coverage. Even articles on the business of health care miss the perspectives of, for example, a chief nursing officer who likely manages the largest part of a hospital budget and can speak about the impact of business decisions by healthcare organizations on the well-being of patients and families.

Nurses are largely absent from photos and other images that accompany health news articles. Nurses may be the most trusted profession in years of Gallup polls (Brennan, 2017), but their invisibility in photos and as authoritative sources is troubling for the profession's aim of ensuring that nurses are viewed as partners in transforming health care and have seats at all relevant decision-making tables.

Our study is limited by several factors. First, there has been a growth of new online-only news media, but we did not include any of these in our sample, since we only examined publications from the original Woodhull study. All of the news outlets we studied now publish online, and one of the outlets has transitioned to an online-only format (*AMA Wire*). However, examining the extent to which healthcare reporting on newer online-only news outlets differs from that in legacy outlets could be a vital area for future research.

Second, as with the original Woodhull study, the current study took place over a 1-month period. Since different types of healthcare coverage may be more prominent in one month versus another, it is possible that the findings—both in 1997 and 2017—would have been slightly different had other months been sampled. However, given the paucity of nurses' representation in articles across a wide range of healthcare topics, it seems unlikely that the findings would have differed drastically in other months.

Third, nurses are likely represented more often in these news stories but they were not identified as nurses, so we could not count them. Most news media use *The Associated Press Stylebook* (Associated Press, 2018) that, until recently, called for using "MD" or "Dr." for physicians, optometrists, podiatrists, osteopaths, dentists, and veterinarians; but the "Dr." title was not used for other clinicians with doctorates, including PhDs and DNPs. The 2018 stylebook permits use of the "Dr." title for others with PhDs or clinical doctorates but notes: "However, because the public frequently identifies Dr. only with physicians, care should be taken to ensure that the individual's specialty is stated in first or second reference" (Associated Press, 2018, p. 88). The new stylebook does not address "RN," and many media outlets will not use it or will say the person is a "registered nurse." Because space may be limited, journalists have reported

that they usually will use only the nurse's official title (Mason et al., 2018). If the nurse is the chief executive officer (CEO) of a hospital, it is unlikely that the story will say that the CEO is a nurse. On the other hand, if the CEO is a physician, it is not uncommon to see "MD" after the CEO's name. The journalists interviewed in the qualitative study were not aware of the changes in the latest stylebook.

The original Woodhull study included a number of sound recommendations for nursing and journalists. STTI engaged in advancing some of these recommendations immediately after the study was published. Yet, many remain relevant today. Ensuring that nurses become more visible in health news media will require concerted efforts, including nursing associations developing resource directories of nurses prepared to speak with journalists; healthcare organizations and universities offering nurses as clinical and policy experts; associations and universities being proactive in reaching out to journalists on new nursing research and other stories; educating journalists about the depth of clinical and research experience of nurses on myriad topics; and helping nurses to develop media competencies. A sustained effort will be necessary to ensure that, in 2037, a replication of the Woodhull study will not report that there has been no progress once again.

Acknowledgments

Clinical Resources

- Updates and reports on the Woodhull Project. www.go.gwu.edu/Woodhull
- Center for Health Policy and Media Engagement, School of Nursing, George Washington University. https://nursing.gwu.edu/health-policy-media-engagement
- Original Woodhull Study. https://www.nursingrepository.org/handle/10755/624124
- Women's Media Center. https://www.womensmediacenter.com/

References

Aguilar, A. (2017, September 30). Editorial: Healthcare transformation 2.0. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20170930/NEWS/170929861

Altheide, D. L. (1987). Reflections: Ethnographic content analysis. *Qualitative Sociology*, *10*(1), 65–77.

Arndt, R. Z. (2017, September 8). Hospitals take in patients evacuated from hurricane zones. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20170908/NEWS/170909896

Associated Press. (2018). *The Associated Press stylebook and briefing on media law 2018*. New York: Basic Books.

Baker, M. (2017, September 11). Swedish's Cherry Hill site regains full status in Medicare Program. *Seattle Times*. Retrieved from https://www.seattletimes.com/seattle-news/swedishs-cherry-hill-site-regains-full-status-in-medicare-program/

Barkholz, D. (2017, September 11). June spending on hospital care rises at slowest rate in 28 years. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20170911/NEWS/170919995

Berg, S. (2017, September 18). In patient satisfaction scores, what role does bias play? *AMA Wire*. Retrieved from https://wire.ama-assn.org/ama-news/patient-satisfaction-scores-what-role-does-bias-play

Berg, S. (2017, September 21). Finding hidden leadership figures among women physicians. *AMA Wire*. Retrieved from https://wire.ama-assn.org/life-career/finding-hidden-leadership-figures-among-women-physicians

Berkowitz, D. (2009). Reporters and their sources. In K. Wahl-Jorgensen & R. Hanitzsch (Eds.), *The handbook of journalism studies* (pp. 102–114). New York: Routledge.

Brennan, M. (2017). *Nurses keep healthy lead as most honest, ethical profession*. Retrieved from http://news.gallup.com/poll/224639/nurses-keep-healthy-lead-honest-ethical-profession.aspx

Dickson, V. (2017, September 7). Health centers urge Congress to act to avoid mass closures. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20170907/NEWS/170909918

Dvorak, P. (2017, September 13). How to make one of America's most dangerous jobs safer. *The Chicago Tribune*. Retrieved from http://www.chicagotribune.

com/news/opinion/commentary/ct-perspec-nursing-dangerous-osha-0914-story.html

Entman, R. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, *43*(4), 51–58.

Entman, R. M., Matthes, J., & Pellicano, L. (2009). Nature, sources, and effects of news framing. In K. Wahl-Jorgensen & R. Hanitzsch (Eds.), *The handbook of journalism studies* (pp. 175–190). New York: Routledge.

Friedman, L. (2017, September 29). As Trump takes aim at Obama's clean power plan, a legal battle looms. *The New York Times*. Retrieved from https://www.nytimes.com/2017/09/28/climate/clean-power-plan.html

Future of Nursing: Campaign for Action. (2018). *Campaign successes*. Retrieved from https://campaignforaction.org/wp-content/uploads/2018/02/Campaign-Successes-6.4.18.pdf

Gardner, B., Glickstein, B., & Mason, D. J. (2016). Using the power of media to influence health policy and politics. In D. Mason, D. Gardner, F. Outlaw, & E. O'Grady (Eds.), *Policy and politics in nursing and health care* (7th ed., pp. 120–136). St. Louis, MO: Elsevier.

Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: National Academies Press.

Krippendorff, K. (2008). Testing the reliability of content analysis data: What is involved and why? In K. Krippendorff & M. A. Bock (Eds.), *The content analysis reader* (pp. 350–357). Thousand Oaks, CA: Sage.

Mason, D. J., Glickstein, B., & Westphaln, K. (2018). Journalists' experiences with using nurses as

sources in health news stories. *American Journal of Nursing*, *118* (10).

McCombs, M., & Reynolds, A. (2009). How the news shapes our civic agenda. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (pp. 1–17). New York: Taylor & Francis.

McCombs, M., & Shaw, D. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, *36*(2), 176–187.

Mele, C., & Victor, D. (2017, September 1). Utah nurse handcuffed after refusing to draw patient's blood. *The New York Times*. Retrieved from https://www.nytimes.com/2017/09/01/us/utah-nurse-arrested-blood.html

Scheufele, D., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*, *57*(1), 9–20.

Sieber, J. R., Powers, C. A., Baggs, J. R., Knapp, J. M., & Sileo, C. M. (1998). Missing in action: Nurses in the media. *American Journal of Nursing*, *98*(12), 55–56.

Sigma Theta Tau International. (1997). *The Woodhull study on nursing and the media: Health care's invisible partner*. Indianapolis, IN: Center Nursing Press.

Women's Media Center. (2017). *The status of women in the U.S. media, 2017*. Retrieved from http://www.womensmediacenter.com/assets/site/reports/10c550d19ef9f3688f_mlbres2jd.pdf

World Association for Christian Communication. (2015). *Global Media Monitoring Project, 2015: Who makes the news?* Retrieved from http://cdn.agilitycms.com/who-makes-the-news/Imported/reports_2015/global/gmmp_global_report_en.pdf