



Analyzing Women's Representation in the Health Care Field on American Television from 1965–2019

Katherine Janeway Murphy
Defiance College

Kate Murphy graduated summa cum laude from Defiance College in Deviance, Ohio in May 2020 with a double major in history and nursing. Kate is currently working full-time as a labor and delivery registered nurse (RN). She was a Presidential Scholar and a member of the Alpha Delta Nu and the Phi Theta Kappa Honor Societies and the Carolyn M. Small Honors Program. Kate is a Woman of Marvel and has been on the Women of Marvel Podcast and This Week in Marvel Podcast with Ryan Penagos. She has presented at the Intel International Science & Engineering Fair, the Phi Alpha Theta History Colloquium, and the McMaster's Symposium and Honors Colloquium. She has published in Case Western Reserve University's undergraduate academic journal, *Discussions; Living Today; Health & Education for the Northwest Ohio Woman; and Progeny Magazine*. Kate is in graduate school at the Frontier Nursing University, studying to become a certified nurse midwife (CNM) in order to continue helping women deliver happy, healthy babies in Northwest Ohio and Northeast Indiana.

Acknowledgements

The American Nurses Association named 2020: The Year of the Nurse. This article began as a science fair project and was expanded into a nursing paper, which began with a visit to Defiance College's Director of Nursing Cheryl Hinojosa's office. She has her first nursing uniform and cap on display as a reminder of how far nursing has come in the last thirty years. Professor Hinojosa mentioned that she would love to see a study on how society's perceptions of nursing have changed; and so, this paper is dedicated to her. A special thank you also goes out to Hicksville High School anatomy teacher, Kathy Laney; Northwest Ohio Science and Engineering Fair coordinator, James Short; Northwest Ohio District Science Day coordinator, Blythe Tipping; and Defiance College's Dr. Don Buerk and Professor Heidi DeSoto.

Abstract

The purpose of this study was to determine if, how, and how much women's representation has changed in health care on American television (1965–2019) to help understand how popular culture portrays and treats women. It was hypothesized that women's representation in the health care field on American television has become less stereotypical and more equitable as determined by the nine-point quantifiable rubric from 1965–2019. The rubric underwent inter-rater reliability tests twice with ten experienced raters. The researcher reviewed 600 medical dramas from 40 different American television shows. Through the quantitative content analysis, women's representation in the health care field on American television's average scores consistently went up by decade from 10.20 for 1965–1974 to 37.10 for 2015–2019, which supported the hypothesis and was very highly significant at .001. Results were also tracked for the nine rubric categories (score range 0–5)—actual presence (1.28 for 1965–1974 to 4.85 for 2015–2019), medical Bechdel Test (.88 to 3.99), story line (1.53 to 4.89), screen time (.89 to 3.91), balance of power (.82 to 4.21), physical depiction (1.75 to 4.32), medical procedures (.87 to 4.32), race and gender (1.13 to 3.64), and sexual harassment (1.04 to 2.97) with significance noted in the sub-sets.

Background Research

Since 2010, the United States has seen very dramatic and unprecedented changes in health care, and these trends are expected to continue through 2022 (“Healthcare Talent,” 2016). With additional insured patients through the Affordable Care Act, advances in mobile medical technology, shortages of medical providers in rural areas, and the deluge of aging Baby Boomers needing additional medical care and support, the American Bureau of Labor Statistics predicts a 19–25% increase in health care careers over the next seven years with the greatest growth expected for licensed practical nurses, medical assistants, and registered nurses (“Healthcare Talent,” 2016). Seven of the top 10 U.S. News & World Report’s “100 Best Jobs” are health-care careers. With such a high demand for future nurses and health care providers, several nursing associations are very concerned with meeting these needs, especially with what they perceive as negative and derogatory images of nursing on American television. To help with recruiting efforts and long-term employment, the nursing associations—including the American Academy of Nursing and the Center for Nursing Advocacy—want to improve the perception of nursing in the media. Since television is arguably the most powerful American popular cultural medium, and according to Becker’s Hospital Review over 91% of nurses in the United States today are women, for an effective improvement plan to be implemented, a current baseline study

of women's representation in the health care field on American television is desperately needed, especially with the American Nurses Association naming 2020: The Year of the Nurse (Rappleeye, 2015).

Kaela Jubas and Patricia Knutson (2012) found that popular culture is an agent of socialization. "Contrary to the tendency to dismiss popular culture as mundane and unimportant, [a Gramscian] perspective asserts that it ought to be taken seriously" (p. 86). Gramscian theory shows that popular culture plays a key role in shaping thought and social learning. Gramscian theory illustrates the way that the media, especially television, can both create and shape public perception of women in health care fields.

One way to study an issue is to look at how it is framed. Vital for understanding public perception, framing may influence the way people interpret and learn about what is happening around them (Jaworski, 2019, p. 109). Media is a powerful educational and socialization tool. Much of early socialization is through modeling. Individuals tend to model their behavior after the role models they identify with. In Social Role Theory, a role is any set of socially defined actions or expectations (Dunne, 2006, p. 3). Television is probably the most impactful influence on shaping public opinion and thought (Kalisch & Kalisch, 1980, p. 114). With 115.6 million American television-viewing households, television remains one of the most powerful agents of socialization in the United States (Nielson, 2015). It is responsible for modeling, teaching, and socializing cultural and societal norms, values, and beliefs. Jubas and Knutson (2012) write that they "see television as a unique medium. Unlike film or novels, television series are long running. . . . By its nature, the television series enables audience members to watch characters learn and develop as they themselves learn and develop" (p. 87). Kalisch and Kalisch (1980) agree that since television reaches and affects hundreds of millions of viewers every day, it is a very powerful agent of socialization, which could have a significant impact on the perception of women in the health care field (p. 12). In "Men in Nursing on Television: Exposing and Reinforcing Stereotypes," Rosalyn Weaver (2014) writes:

It has long been recognized that images of particular professions in popular culture can affect how that profession is perceived in the real world. . . . Images of nursing on television and in other popular media can play some part in recruitment by presenting the profession as an attractive career that welcomes a diverse range of people and the images can also affect retention. (p. 834)

Since medical and hospital dramas have been a foundation for television programming since the modern age of television in 1965, television, almost since its inception, has helped to shape the public's opinion and perception of nursing and women in health care (Weaver et al., 2013, p. 2636). However, current empirical data is still desperately needed. There have only been very limited

tangential studies of television's impact on the public's perception of women in health care. Of these, most are only qualitative studies, which documented the public's perception of women in health care in Canada, Australia, and the United Kingdom, especially England and Ireland (Jubas & Knutson, 2012; Weaver, 2014; Weaver et al., 2013; Kline, 2010; Watts, 2006). Since television is such a large part of popular culture and since popular culture by its nature is specific to one society or cultural group, the data or results from international studies may or may not be accurate or reliable for the United States.

Only one comprehensive quantitative research study has been done in the United States on the public's perception of women in health care, and, unfortunately, this research study by Kalisch and Kalisch (1984) only covers the very early years of television from 1950–1970. Even though many researchers have tried to use this study as a current basis for public opinion and perception, the data is outdated and cannot be considered a current measure for popular American culture. Because the study is nearly four decades old, Kalisch and Kalisch's research needs to be built upon and updated. A current baseline study of women's representation in the health care field on American television is still desperately needed.

Kalisch and Kalisch's (1984) early quantitative content analysis reviewed 320 television episodes from twenty-eight different television series from 1950–1970 (p. 533). They explain: "The studies of television content conducted in the last 10 years [1970–1980] have been directed at television's underrepresentation of women and minority groups and its promulgation of sexual, racial, socioeconomic, and occupational stereotypes" (pp. 533–534). Through the 1950–1970 content analysis, 99% of television nurses were childless, white women, while 95% of television doctors were white men (p. 539). According to Kalisch and Kalisch, nurses were almost always women while doctors were almost exclusively men, giving and reflecting the impression that nursing was women's work (p. 551). Since the study found such a strong gender divide, this research serves as a strong, early foundation for a historical analysis of women's representation in the health care field.

Kalisch and Kalisch's (1984) content analysis was divided into three parts: one on just the nurse characters, one on the doctor characters, and one on the overall episodes. Each part of the analysis reviewed the extent of the characters' representation in the episode, their physical depiction, and their actions (p. 538). According to this study, doctors were generally presented as main characters and decision makers, while nurses were most often seen in the supporting cast as helpmates (p. 541). Further, the research shows that women in the health care field are often viewed as handmaidens and inferior to men (p. 549).

Kalisch and Kalisch's 1984 study includes data from another early television survey. According to the United States Commission on Civil Rights from 1975–1977, 40.1% of women television characters were portrayed as homemakers. Most women television characters did not have jobs or careers.

“When they were shown in occupations, registered nurses (RNs) constituted the second most frequent occupation in which women were portrayed (7.2%). The only other occupational group exceeding RNs for TV females was the nonprofessional field of secretarial work (7.3%)” (p. 537).

From these very limited quantitative studies and other research, nine indicators measuring women’s representation in the health care field on American television from 1965 to 2019 have been developed and will be used in this current research project. The indicators or categories include: women’s actual presence as health care providers in the episode, the medical Bechdel Test, the strength of the story line, the amount of screen time for women health care providers, the balance of power between male and female medical practitioners, the physical depiction and dress of women health care providers, the number of medical procedures performed by women in an episode, the race or ethnicity of the women health care providers, and the number of incidences of sexual harassment present in the episode. These nine indicators will be rated on a five-point scale from the rubric in the appendix. Each indicator will receive a zero to five-point score per episode, and a total score for each episode will be assigned. These scores will be assigned to the 42- to 46-minute medical drama episodes, which aired on American television from 1965–2019. A perfect total score, for an episode, would be 45 points while the worst possible total score would be zero (see appendix for this and all rating rubrics).

From the early quantitative studies on women’s representation in the health care field on American television, the only consistent factor that researchers have explored is the number of women health care providers actually present in the television episode (Jubas & Knutson, 2012; Kalisch & Kalisch, 1983b). Since medical dramas are such an integral part of American television, nurses are “often among the most visible characters in televised accounts of hospital life”; and yet, according to Weaver et al. (2013), quite frequently they are used more as background than characters in the story (p. 2639).

The next indicator and likely the least well-known is the medical Bechdel Test. The Bechdel Test itself was developed by Alison Bechdel, an American cartoonist, in her comic strip, “The Rule,” from her long-running *Dykes to Watch Out For* series. It was originally created as a humorous test for film and has been adapted for television and medical programming (Ulaby, 2014). The adapted medical Bechdel Test for television has four general criteria. The first is that the televised episode must have at least two women medical characters in it. Second, these medical characters must have names. Third, they must speak with each other, and, finally, their conversation must be about a medical procedure or issue and not just about men (Scheiner-Fisher & Russell, 2012, p. 222).

The third indicator to be used to analyze women’s representation in the health care field on American television is the strength of the story line or the prominence of the roles women health care providers play in the episode’s plot (Kalisch & Kalisch, 1983b). Screen writers often overlook the female perspective

in plots, because male story lines are considered dominant or universal (Scheiner-Fisher & Russell, 2012, p. 222). This is true in television scripts and other literature. During the early years of television, female characters were used almost entirely as companions or sidekicks to their male counterparts. They rarely had story lines of their own. According to Kalisch and Kalisch (1984), “television nurses largely serve as window dressing on the set and have little opportunity to contribute to patient welfare. Action is needed to improve the quality of nurse portrayals by making them more congruent with the real world of work in health care” (p. 533). According to James Watts’ 2006 qualitative survey, British “medical dramas have also changed in their portrayal of medical staff, though more subtly. . . . [T]hey have now become more rounded and human” (p. 57). It is yet to be determined if this is true of American television’s portrayal of women in the health care field.

This study’s fourth indicator of women’s representation in the health care field on American television is the amount of actual screen time women health care providers are afforded on episodes of medical drama shows. Although a rather simple quantitative indicator, it has, surprisingly, seen only limited use in previous research. Weaver (2014) used screen time or on-air time as one of her indicators in her Australian qualitative study of *Grey’s Anatomy*, *Hawthorne*, *Mercy*, *Nurse Jackie*, and *Private Practice*. She found that nursing characters were portrayed as unimportant because of their minimal on-air time or televised screen time (p. 839). The amount of media attention on an issue or character carries a great deal of weight when it comes to American public perception (Kalisch & Kalisch, 1980, p. 12). In this study, screen time will be tracked in nine-minute segments with less than one minute receiving a score of 0, and 37–46 minutes receiving a perfect score of 5.

According to Sandra Young (2005), “fiction has had a checkered history when depicting the roles nurses play,” the decisions they make regarding patient care, and how they interact with other co-workers and doctors on American television (p. 75). Jubas and Knutson (2012) and Weaver (2014) analyzed the interactions and the decisions made between male and female medical practitioners (p. 90; p. 836). This balance of power is the fifth indicator for this research study. It has been found that character analysis is under studied in television. Reporting on Lemon’s study of the 1975–1976 television season, Kalisch and Kalisch (1984) found that “in all programs men tend to dominate women” (p. 535). From 1950–1970 on American television, “physicians issued orders far more often than they consulted nurses,” and they used their own judgement rather than consulting their “medical team” far more than nurses did in those three decades (p. 549). Turow’s (1974) analysis of primetime television shows went even further. He found that male characters made over 70% of the decisions in male-female relationships (p. 138). This study will determine if there has been any change in this balance of power or decision-making on American television, regarding women in the health care fields, in the last forty years.

Without a doubt, the physical depiction and dress of women health care providers, especially nurses, has garnered more research time and studies than any other indicator. Just about every researcher in the field has studied how women's appearance, dress, and depiction on television impacts the public's perception of them as health care providers (Jubas & Knutson, 2012, p. 90; Weaver, 2014, p. 833; "Media Portrayals," 2006, p. 33). Leading the research in this field, Kalisch and Kalisch (1983a) were the first researchers to identify five dominant image types for women in health care, especially nursing. These female media depictions include the Angel of Mercy, the Girl Friday, the Heroine, the Mother, and especially, the Sex Object (p. 5). From their original study, just about every other researcher noted the nursing stereotypes of physician's handmaiden, battle-axe, and naughty nurse (Weaver, 2014, p. 833; "Media Portrayals," 2006; Spear, 2006, p. 33). Kalisch and Kalisch (1984) found a dramatic escalation in the depiction of women health care providers as sexual objects on American television from 1950–1970 (p. 549).

The seventh indicator for this research study is the number of medical procedures performed by women health care providers in each television episode. According to Muelbauer (2012), "From M*A*S*H to ER, House to Nurse Jackie and more, television has represented nurses in varying degrees, and not all of it flattering. Many medical dramas depict doctors doing nursing work, including starting IVs and providing bedside care at all hours" (p. 21). This concern that doctors are being depicted providing nursing care has been a concern since 1970 with *Marcus Welby, M.D.* and continued through 2003 with *ER* and even into 2006 with *Grey's Anatomy* (Kalisch & Kalisch, 1984, p. 550; "Media Portrayals," 2006, p. 33). With the Becker's Hospital Review showing that 91% of nurses are women, the depiction of women in the health care field performing medical procedures consistent with their positions and their patients' health care needs, is a vital indicator of women's representation in the medical community on American television (Rappleye, 2015).

For women of color, the intersection of race and gender impact both the social and professional roles ascribed to them (Jubas & Knutson, 2012, p. 94). Since gender and race are so intertwined, the eighth indicator for this research study is the race or ethnicity of the women health care providers in the television episode. According to an early television study by Seggar and Wheeler in 1973, women and minority groups were very underrepresented and stereotyped (Kalisch & Kalisch, 1984, p. 536). Jubas and Knutson's qualitative survey disagreed with the 1973 study (2012, p. 95). While art or television may often imitate life, television, their observations noted, may be able to lead the way in societal changes or perceptions of women and race in the medical field. Alternatively, televised medical dramas can be detrimental to women in health care if the episodes reinforce damaging or negative racial stereotypes (Kline, 2010, p. 53). This study will attempt to sort out the mixed results found in previous surveys on the perceptions of women of color in the health care field on American television.

The final indicator for this research study is the number of incidences of sexual harassment present in each episode. According to Weaver et al. (2013), “images of nursing in popular media frequently draw on stereotypes that may damage the appeal of nursing for potential students and denigrate the value and status of the profession” (p. 2635). This is particularly true of sexual harassment and negative sexual portrayals of nurses and other women in the health care field. With registered nurses (RNs) making up the second largest profession in the United States today, the demand for women in the health care field is as great as it ever has been (Kalisch & Kalisch, 1983a, p. 18). The negative sexual stereotypes of women in the health care field often portrayed in television medical dramas include that of the “sex symbol, seductress and naughty nurse . . . buxom nurses dressed in tightly fitted white uniforms” may discourage women from entering or staying in the nursing profession (Spear, 2006, p. 33). These negative images, stereotypes, and examples of sexual harassment may actually encourage the development of negative perceptions regarding women in the health care field in very young children. According to Kalisch and Kalisch (1984), “Frueh and McGhee suggested that children, particularly heavy viewers, may actually attend more to TV portrayals of sexual stereotyped activities than to nonstereotyped activities” (p. 536). If children develop negative perceptions of women in the health care field at a very young age, as they age, those negative perceptions could impact their own health and their potential career choices. Television can play a major role in the recruitment and retention of women in the health care field . . . either positively or negatively (Weaver et al., 2013, p. 2636). A baseline study of women’s representation in the health care field on American television is needed to help develop and positively shape the future.

Methodology

The researcher developed a quantifiable rating rubric on rcampus.com with nine categories. The categories included women’s actual presence as medical providers on the television show, the medical Bechdel Test, female medical providers’ involvement in the story line, the balance of power in decision-making between male and female medical providers, the physical depiction of women as medical providers, the medical procedures that they performed, race and gender representation, and sexual harassment. Each of these nine categories were rated on a 0–5 point scale with the lowest possible score being 0 and the highest being 5. Each of the categories’ scores were then added together for an overall score between 0 being the lowest and 45 being the highest. After the rubric was developed, it was tested with 10 experienced raters using the same television episode to test for inter-rater reliability. Based upon the reviewers’ feedback and raters’ errors, the rating rubric was revised and retested. The final rating rubric appears in the appendix.

For women’s presence, a rating of 5 was given when the female medical character was the main character in the episode. A rating of 4 was given when

one or more female medical characters was present as part of a main ensemble cast. A rating of 3 was given when an equal number of male and female medical characters were present with equal prominence and status. A 2 was given when two or more female medical characters were present but only in the background. A 1 was given when one female medical character was present but found only in the background. A 0 was given when there were no female medical characters present in the episode.

For the medical Bechdel Test, a rating of 5 was given when female medical characters were present in the episode, spoke to one another and were heard by the audience, and had conversations that included the discussion of two or more medical procedures. A rating of 4 was given when female medical characters were present in the episode, spoke to one another and were heard by the audience, and had conversations that included the discussion of at least one medical procedure. A rating of 3 was given when female medical characters were present in the episode, spoke to one another and were heard by the audience, but their conversations were only about male characters. A 2 was given when female medical characters were present in the episode and spoke to one another; but their dialogue was not heard by the audience. A 1 was given when female medical characters were present in the episode, but they did not speak to another female medical character. A 0 was given when no female medical characters were present in the episode.

For the story line, a rating of 5 was given when a female medical character had the main story line for the episode. A rating of 4 was given when at least one female medical character was part of the main story line for the episode. A rating of 3 was given when at least one female medical character was part of the secondary story line but not the main story line of the episode. A 2 was given when female medical characters were present in the episode, but their dialogue and/or actions did not contribute to the plot line. A 1 was given when female medical characters were present in the episode, but they did not speak or were not heard by the audience. A 0 was given when no female medical characters were present in the episode.

For screen time, a rating of 5 was given when one or more female medical characters were on screen for a total of 37–46 minutes. A rating of 4 was given when one or more female medical characters were on screen for a total of 28–36 minutes. A rating of 3 was given when one or more female medical characters were on screen for a total of 19–27 minutes. A 2 was given when one or more female medical characters were on screen for a total of 10–18 minutes. A 1 was given when one or more female medical characters were on screen for a total of 1–9 minutes. A 0 was given when there were no female medical characters present, so they had no screen time in the episode.

For balance of power, a rating of 5 was given when female and male medical characters made all of the health care decisions in the episode together. A rating of 4 was given when female medical characters made at least 1 health

care decision in the episode with male input. A rating of 3 was given when female medical characters made at least 1 health care decision in the episode on their own. A 2 was given when the male medical characters made all of the health care decisions in the episode but with some female input. A 1 was given when the male medical characters made all of the health care decisions in the episode with no female input. A 0 was given when there were no female medical characters present in the episode.

For physical depiction, a rating of 5 was given when female medical characters, in all health care situations, were always costumed in lab coats or hospital scrubs with flat shoes. A rating of 4 was given when female medical characters, in all health care situations, were not always costumed in lab coats or hospital scrubs with flat shoes. A rating of 3 was given when female medical characters, in all health care situations, were always costumed in medical-related dresses and high heels. A 2 was given when female medical characters, in all health care situations, were sometimes but not always costumed in medical-related dresses and high heels. A 1 was given when female medical characters, in all health care situations, were not in any medical costume. A 0 was given when there were no female medical characters present in the episode.

For medical procedures, a rating of 5 was given when female medical characters performed all medical procedures consistent with their positions and patients' health care needs. A rating of 4 was given when female medical characters performed two or more medical procedures consistent with their positions and patients' health care needs. A rating of 3 was given when female medical characters performed one medical procedure consistent with their positions and patients' health care needs. A 2 was given when female medical characters performed at least one medical procedure, which was not consistent with their positions and patients' health care needs. A 1 was given when female medical characters did not perform any medical procedures in the episode. A 0 was given when there were no female medical characters present in the episode.

For race and gender, a rating of 5 was given when three or more female medical characters were women of color, representing three or more different ethnicities in the episode. A rating of 4 was given when two or more female medical characters were women of color, representing two different ethnicities in the episode. A rating of 3 was given when two or more female medical characters were women of color, representing the same ethnicity in the episode. A 2 was given when at least one female medical character in the episode was a woman of color. A 1 was given when at least one white female medical character was present in the episode. A 0 was given when there were no female medical characters present in the episode.

For sexual harassment, a rating of 5 was given when there were no instances of sexual harassment present in the episode. A rating of 4 was given when there was only one instance of sexual harassment present in the episode. A rating of 3 was given when there were two instances of sexual harassment

present in the episode. A 2 was given when there were three instances of sexual harassment present in the episode. A 1 was given when there were four or more instances of sexual harassment present in the episode. A 0 was given when there were no female medical characters present in the episode.

The American medical drama television episodes came from Ohio's public libraries' collections. They were divided into the following decades—1965–1974, 1975–1984, 1985–1994, 1995–2004, 2005–2014, and 2015–2019. Then the individual episodes were numbered by decade, starting with number one through the last episode. Then those numbers, representing the individual episodes, were run through the True Random Number Service at random.org to randomize each decade's television episode sample.

Each of the selected, individual episodes were then watched, analyzed, and reviewed. Each television episode was rated and scored based upon the final rubric in the following nine categories—representation, medical Bechdel Test, story line, screen time, balance of power, depiction, medical procedures, race, and sexual harassment. The scores from those nine categories were noted, along with a total score, which was the sum of the categories for each episode. One hundred American medical television show episodes were reviewed per decade from 1965 to 2019 for a total of 600 episodes.

An Excel spreadsheet was set up to track each of the nine categories' scores and the total score per episode by decade. The episodes' total scores were then combined and analyzed by decade. For analysis, there were sixty data sets. They included the nine major categories on the attached rubric plus their total score and the overall total score for women's representation in the health care field on American television. These ten categories were analyzed for any changes and for statistical significance by decade. An ANOVA statistical analysis was run using XL-Stat Software. Then t-tests were run to determine where the significance actually was for each sub-set.

Analysis

The purpose of this study was to determine if, how, and how much women's representation has changed in health care as shown through American television (1965–2019) to help understand how popular culture portrays and treats women within the health care field. It was hypothesized that women's representation in the health care field on American television has become less stereotypical and more equitable as determined by the nine-point quantifiable rubric from the birth of modern television in 1965 to 2019. Through the quantitative content analysis, women's representation in the health care field on American television's average scores consistently went up by decade from 10.20 for 1965–1974 to 37.10 for 2015–2019.

The researcher reviewed 600 medical drama episodes, which aired on American television from 1965 to 2019. The content analysis was broken down by decade from the beginning of modern television to the present: 1965–1974,

1975–1984, 1985–1994, 1995–2004, 2005–2014, and 2015–2019. One hundred American television medical drama episodes were reviewed per decade. The forty different medical dramas included: *Body of Proof*, *Chicago Hope*, *Chicago Med*, *China Beach*, *Code Black*, *Crossing Jordan*, *Diagnosis Murder*, *Doc*, *Doogie Howser*, *Dr. Kildare*, *Dr. Quinn*, *Medicine Woman*, *Emergency*, *ER*, *Everwood*, *Grey's Anatomy*, *Hart of Dixie*, *Hawthorne*, *House*, *Marcus Welby, M.D.*, *Medical Center*, *Mercy*, *The Mob Doctor*, *Monday Mornings*, *New Amsterdam*, *Night Shift*, *Northern Exposure*, *Off the Map*, *Private Practice*, *Quincy, M.E.*, *Red Band Society*, *The Resident*, *Royal Pain*, *RUSH*, *Saving Hope*, *St. Elsewhere*, *Strong Medicine*, *Trapper John, M.D.*, *Three Rivers*, *Trauma*, and *Virgin River*.

These episodes were analyzed using the same rubrics described above and revealed the same results. For women's actual presence in medical dramas on American television, the rubric scores ranged from 1.28 for 1965–1974 to 4.85 for 2015–2019 with very high significance for all but 2005–2014 with just significance (see Figure 1).

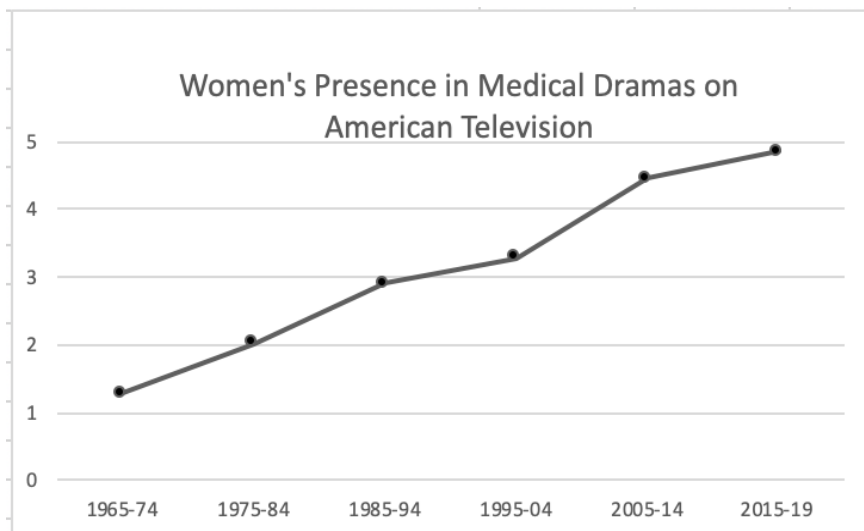


Figure 1. Female medical providers presence, in 600 medical dramas on American television from 1965–2019, was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that a female medical character was the main character in the episode. For this and all subsequent figures, the data was collected by the author from American medical dramas available through Ohio's public libraries, recorded in an Excel spreadsheet, and analyzed with XL-Stat Software for statistical significance.

For the medical Bechdel Test, the rubric scores ranged from .88 for 1965–1974 to 3.99 for 2015–2019 with very high significance for all but 2005–2014 with just significance (see Figure 2).

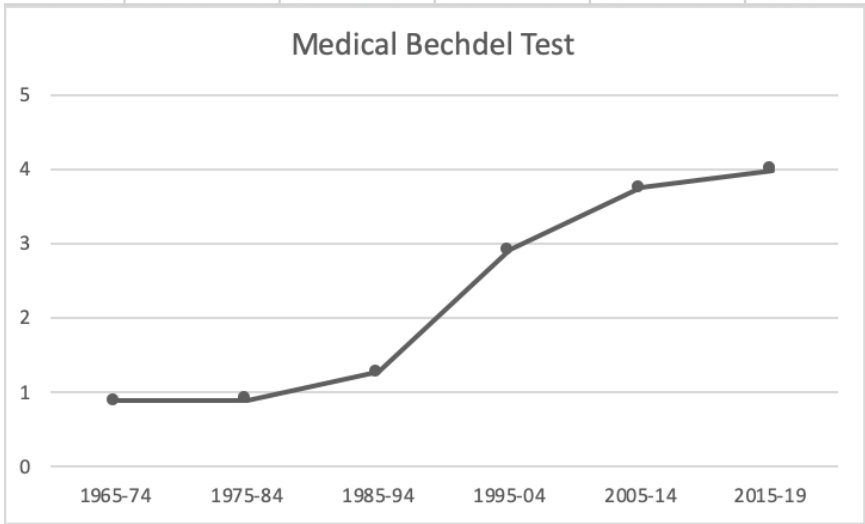


Figure 2. The medical Bechdel Test, in 600 medical dramas on American television from 1965–2019, was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that there were female medical characters present in the episode, that they spoke to another and they were heard by the audience, and their discussions were about two or more medical procedures in the episode.

For women’s representation in story lines, the rubric scores ranged from 1.53 for 1965–1974 to 4.89 for 2015–2019 with very high significance for all but 2005–2014 with just significance (see Figure 3).

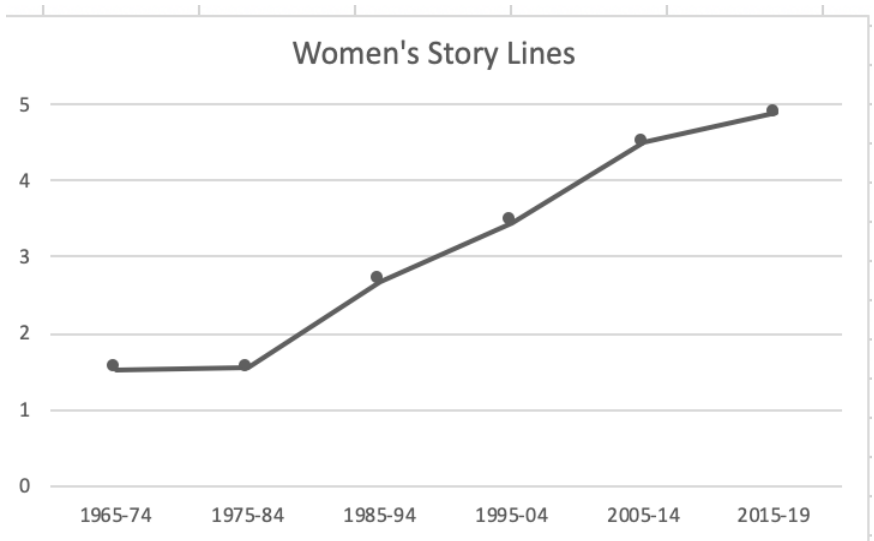


Figure 3. Women’s story lines, in 600 medical dramas on American television from 1965–2019, were analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that a female medical character had the main story line for the episode.

For women's screen time, the rubric scores ranged from .89 for 1965–1974 to 3.91 for 2015–2019 with very high significance for all but 1995–2004 at high significance and 2005–2014 at significance (see Figure 4).

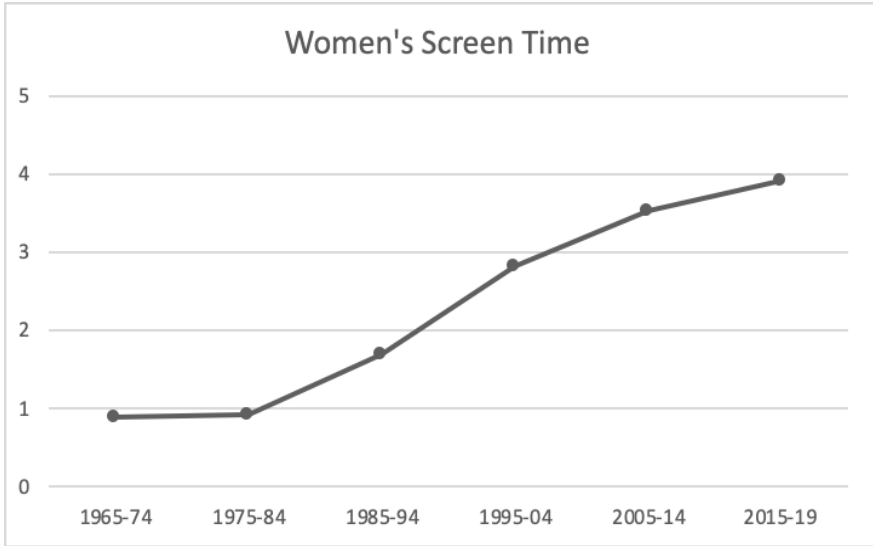


Figure 4. Women's screen time, in 600 medical dramas on American television from 1965–2019, was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode with no screen time and a rating of 5 indicating that one or more female medical characters are on screen for 37–46 minutes of the episode.

For balance of power between male and female medical providers on American television, the rubric scores ranged from .82 for 1965–1974 to 4.21 for 2015–2019 with very high significance for all but 2005–2014 at significance (see Figure 5).

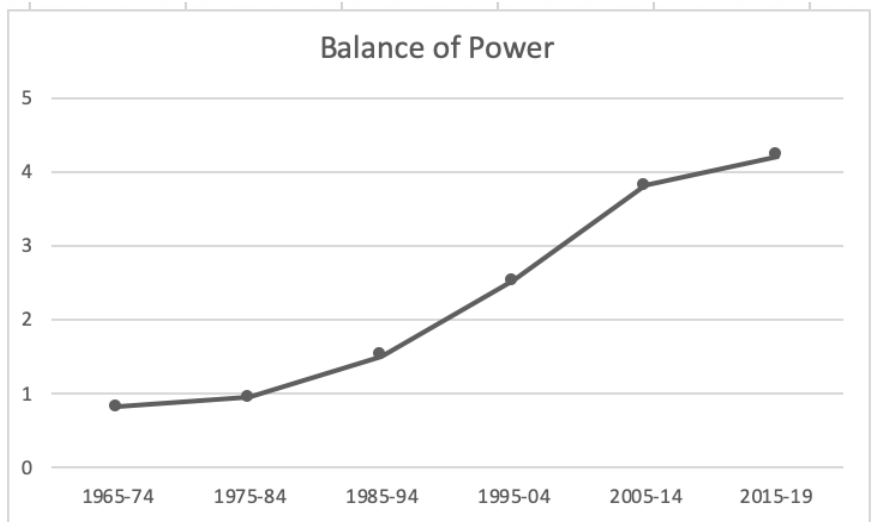


Figure 5. The balance of power between male and female medical characters, in 600 medical dramas on American television from 1965–2019, was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that male and female medical characters made all health care decisions together in the episode.

For the physical depiction of female medical providers in American medical dramas, the rubric scores ranged from 1.75 for 1965–1974 to 4.32 for 2015–2019 with very high significance for all but 1995–2004 at high significance and 2005–2014 at significance (see Figure 6).

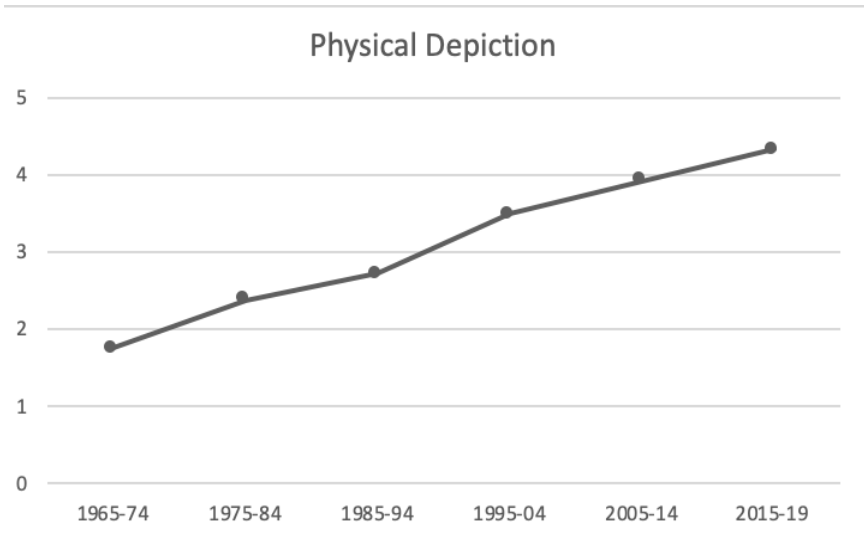


Figure 6. The physical depiction of female medical characters, in 600 medical dramas on American television from 1965–2019, was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that female medical characters in all health care situations were always costumed in lab coats or hospital scrubs with flat shoes in the episode.

For medical procedures, the rubric scores ranged from .87 for 1965–1974 to 4.32 for 2015–2019 with very high significance for all but 1995–2004 at high significance and 2005–2014 at significance (see Figure 7).

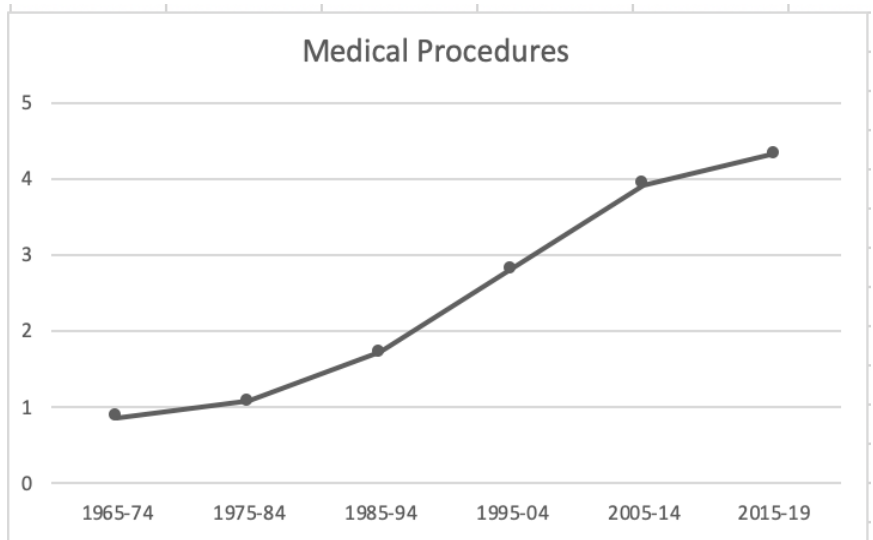


Figure 7. Medical procedures, performed by female medical characters in 600 medical dramas on American television from 1965–2019, were analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that female medical characters performed all medical procedures consistent with their positions and patients’ health care needs in the episode.

For the female medical providers' racial or ethnic breakdowns in American medical dramas, the rubric scores ranged from 1.13 for 1965–1974 to 3.64 for 2015–2019 with very high significance for all but 2005–2014 with significance and none for 1995–2004 (see Figure 8).

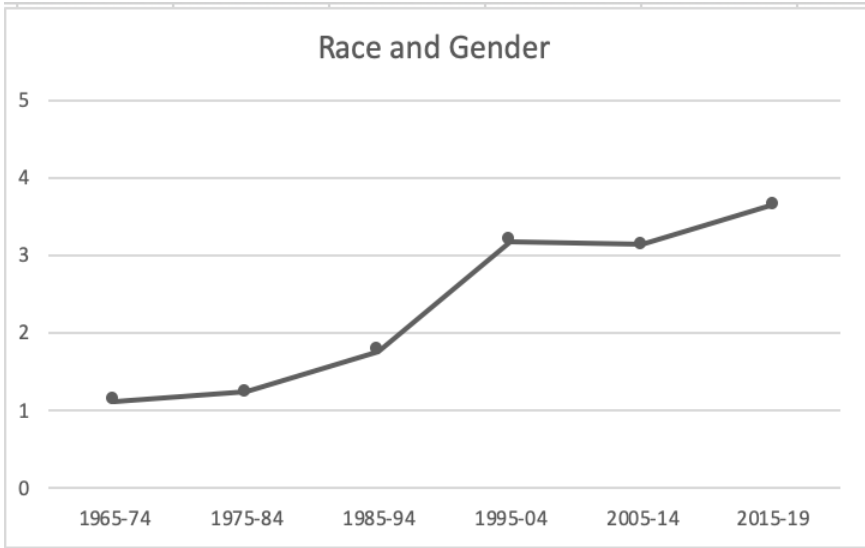


Figure 8. The race of female medical providers in 600 medical dramas on American television from 1965–2019 was analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that there were three or more female medical characters, who were women or color representing three or more different ethnicities, within the episode.

For sexual harassment within American medical dramas, the rubric scores ranged from 1.04 for 1965–1974 to 2.97 for 2015–2019. Very high significance at .001 was found for 1965–1974, high significance at .005 for 1995–2004, and significance for 2005–2014 (see Figure 9).



Figure 9. The incidences of sexual harassment, in 600 medical dramas on American television from 1965–2019 were analyzed by decade using a rubric developed by the author with a rating of 0 indicating no female medical characters present in the episode and a rating of 5 indicating that there were no incidences of sexual harassment in the episode.

For the Overall Total Score for Women's Representation in the Health Care Field on American Television, the rubric score range for this category was 0–45. The rubric scores ranged from 10.20 for 1965–1974 to 37.10 for 2015–2019 with very high significance for all but 2005–2014 with significance (see Figure 10).

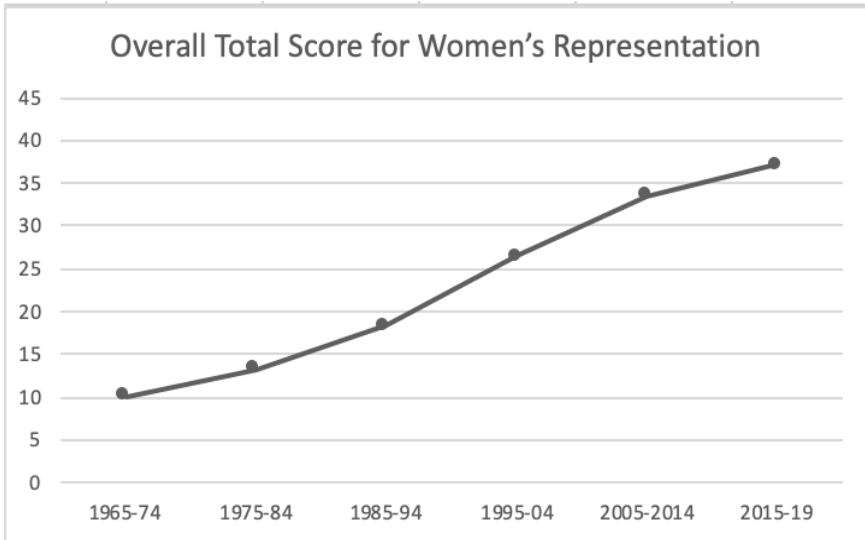


Figure 10. The overall total scores for women's representation in 600 medical dramas on American television from 1965–2019 was analyzed using the combined scores of the nine rubric categories with 0 being the lowest possible score and 45 being the highest. The data from the nine rubric categories were added together by the author.

Conclusion

For women's actual presence in medical dramas on American television from 1965–1974, there were 23 episodes that rated a 0, including episodes from *Marcus Welby, M.D.*, *Medical Center*, and *Dr. Kildare*. No episode in that decade received a perfect score of 5. In contrast, no episode from 2005–2014 and 2015–2019 received a score of 0. In fact, over 90 episodes almost half of those reviewed for those two decades, received a perfect score of 5 (see Figure 1).

Originally designed for film analysis and adapted for use with other media, the medical Bechdel Test showed a slow, steady improvement in female medical dialogue scores from 1965 to 2019 (see Figure 2).

For women's representation in medical drama story lines, there was a slow and steady improvement in story lines in relation to female gender roles from 1.53 for 1965–1974 to 4.89 for 2015–2019. From 1965–1974, the lack of

female characters and their interactions were often overlooked, because the male perspective was usually the dominant or universal story line. In contrast through the first two decades, the phenomenon of the “one-episode wonder,” a term coined by this researcher, was born. The “one-episode wonder” quite literally was a woman doctor, who appeared in one episode as a supporting character for the main male doctor. She is in exactly one episode and is never heard from again. This was especially apparent in *Medical Center*, *Dr. Kildare*, *Quincy, M.E.*, and the later episodes of *Emergency*. This phenomenon may have inflated the scores slightly. This phenomenon is almost completely gone by the 1980s (see Figure 3).

For screen time in medical dramas on American television from 1965–1974, there were only two episodes that even scored a 3 for screen time. That means in 98 episodes women medical providers were present for less than 19 total minutes. In contrast to 2005–2019, 46 episodes received a perfect score of 5. That means that women health care providers were on screen for at least 37 minutes out of the maximum show length of 46 minutes (see Figure 4).

For balance of power, Kalisch and Kalisch (1984) found that from 1950–1970 on American television, “physicians issued orders far more often than they consulted nurses” (p. 549). Turow’s analysis of primetime television shows in 1974 found that male characters made over 70% of the decisions in male-female relationships (p. 138). These two early studies’ results were backed up by this analysis for 1965–1984 with the balance of powers scores of .82 and .95 respectively. In contrast, male and female medical providers increasingly shared decision making and problem solving more equitably in the last three decades (see Figure 5).

For women’s physical depiction in medical dramas on American television, Kalisch and Kalisch (1984) found that “the more nurse characters have been presented as sex objects, the less they have been shown expressing a serious commitment to making the world a better place” (p. 549). This study also found a correlation between women’s physical depiction and their medical story lines in American medical dramas (see Figure 6). The scores were very similar when comparing these two categories. Further study of this correlation is needed in the future.

For women’s medical procedures performed in medical dramas on American television, medical procedures saw a consistent growth in rubric scores from .87 in 1965–1974 to 4.32 in 2015–2019. In 2003, Lenzer observed: “They [ER] have physicians doing nurses’ work. . . . 99% of defibrillations are performed by nurses” (p. 1294). The depiction of women in the health care field, performing medical procedures consistent with their positions and their patients’ health care needs, is a vital indicator of women’s representation in the medical community on American television (Rappleeye, 2015). Like Lenzer (2003), this study found a disconnection between the work women health care providers do and what they are portrayed as doing (see Figure 7). In six decades of medical dramas reviewed, not once was a nurse shown defibrillating a patient, while numerous

trauma and emergency room doctors were portrayed in this capacity. This is one example of how the television portrayal of women health care providers could be improved through the planned nursing media campaigns and through medical school recruitment efforts.

Unlike the other categories where the scores were consistent and improving, race shows a stark disparity in the last two decades. From 1995–2004 with a score of 3.18, race had 42 episodes with a perfect score of 5 while still having 12 episodes with a score of 0 and 17 with a score of 1. From 2005–2019, there were no episodes with a score of 0 while 54 scored a 1, compared with 68 episodes rated a perfect 5 (see Figure 8). Further research is needed to explore the disparity found in race and gender in women’s health care roles on American television.

Even with the Me Too Movement, there was only a very modest improvement (that is to say, decline) in sexual harassment from 2.55 from 2005–2014 to 2.97 from 2015–2019 (see Figure 9). Sexual harassment seems to be more of a societal constant, and further research is needed into its causes.

For the overall total score for women’s representation in the health care field on American television, the rubric scores ranged from 10.20 for 1965–1974 to 37.1 for 2015–2019 (see Figure 10). This study was able to support its hypothesis that women’s representation in the health care field on American television has become less stereotypical and more equitable as determined by the nine-point quantifiable rubric from 1965–2019.

There are several potential issues with the study that need to be recognized. If additional funding and time were available, this research study could be improved and/or replicated with the use of multiple raters rather than the single researcher used in this study. This would strengthen the credibility of the results. Also since the researcher used a true random number generator, the episodes generated for review were truly random. This means that there could be accidental or unintentional patterns over-represented in the episodes. For example, the researcher noted an abundance of “active shooter” episodes within the study. It is unclear whether this may have impacted the rubric scores.

Likewise, there could have been some subject bias affecting the results of this study. The researcher borrowed all available medical dramas through the Ohio public library system. There may be some bias on what materials public libraries purchase versus the total number of medical dramas ever aired on American television. Finally, the researcher developed the rubric and wrote the hypothesis, so there could be some observer bias in the results. This was minimized by the inter-rater reliability tests performed on the rubric before the quantitative analysis was begun, but it is still likely present in some form.

Application

Since 2010, the United States has seen very dramatic and unprecedented changes in health care, and these trends are expected to continue through 2022

(“Healthcare Talent,” 2016). The American Bureau of Labor Statistics predicts a 19–25% increase in health care careers over the next seven years with the greatest growth expected for licensed practical nurses, medical assistants, and registered nurses (“Healthcare Talent,” 2016). With such a high demand for future nurses and health care providers, several nursing associations are very concerned with meeting these needs, especially with what they perceive as negative and derogatory images of nursing on American television. To help with recruiting efforts and long-term employment, the nursing associations, including the American Academy of Nursing and the Center for Nursing Advocacy, want to improve the perception of nursing in the media. For an effective improvement plan to be implemented, a current baseline study of women’s representation in the health care field on American television was desperately needed, especially with the American Nurses Association naming 2020: The Year of the Nurse. This research study may help to fill that need. It can serve as a baseline or foundation for the public’s perception of women health care workers on American television, may assist organizations in planning effective media campaigns, and may be used as a quantitative measure of the effectiveness of future campaigns.

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Appendix

Rating Rubric

Women in Healthcare on TV	0 pts	1 pts	2pts	3 pts	4pts	5pts
Women's Presence	0 No female medical characters are present in the episode.	1 One female medical character is present but found only in the background.	2 Two or more female medical characters are present but only in the background.	3 Equal number of male and female medical characters present and of equal prominence and status.	4 One or more female medical characters present as part of a main ensemble cast.	5 The female medical character is the main character of the episode.
Medical Bechdel Test	0 No female medical characters are present in the episode.	1 Female medical characters are present in the episode, but they do not speak to any other female medical character.	2 Female medical characters are present in the episode, speak to another female medical character; but their dialogue is not heard by the audience.	3 Female medical characters are present in the episode, speak to another female medical character, are heard by the audience, but their conversations are only about male characters.	4 Female medical characters are present in the episode, speak to another female medical character, are heard by the audience, and their conversations include the discussion of at least one medical procedure.	5 Female medical characters are present in the episode, speak to another female medical character, are heard by the audience, and their conversations include the discussion of two or more medical procedures.
Story line	0 No female medical characters are present in the episode.	1 Female medical characters are present in the episode, but they do not speak or are not heard by the audience.	2 Female medical characters are present in the episode, but their dialogue and/or actions do not contribute to the plot line.	3 At least one female medical character is part of the secondary story line but not the main story line for the episode.	4 At least one female medical character is part of the main story line for the episode.	5 The female medical character has the main story line for the episode.

Screen Time	0 No female medical characters are present, so they have no screen time in the episode.	1 One or more female medical characters are on screen for a total of 1–9 minutes.	2 One or more female medical characters are on screen for a total of 10–18 minutes.	3 One or more female medical characters are on screen for a total of 19–27 minutes.	4 One or more female medical characters are on screen for a total of 28–36 minutes.	5 One or more female medical characters are on screen for a total of 37–46 minutes.
Balance of Power	0 No female medical characters are present in the episode.	1 Male medical characters make all of the health care decisions in the episode with no female input.	2 Male medical characters make all of the health care decisions in the episode, but with some female input.	3 Female medical characters make at least 1 health care decision in the episode on their own.	4 Female medical characters make at least 1 health care decision in the episode with male input.	5 Female and male medical characters make all health care decisions in the episode together.
Physical Depiction	0 No female medical characters are present in the episode.	1 Female medical characters, in all health care situations, are not in any medical costume.	2 Female medical characters, in all health care situations, are sometimes but not always costumed in medical-related dresses and high heels.	3 Female medical characters, in all health care situations, are always costumed in medical-related dresses and high heels.	4 Female medical characters, in all health care situations, are not always costumed in lab coats or hospital scrubs with flat shoes.	5 Female medical characters, in all health care situations, are always costumed in lab coats or hospital scrubs with flat shoes.
Medical Procedures	0 No female medical characters are present in the episode.	1 Female medical characters do not perform any medical procedures in the episode.	2 Female medical characters perform at least one medical procedure, which is not consistent with their positions and patients' health care needs.	3 Female medical characters perform one medical procedure consistent with their positions and patients' health care needs.	4 Female medical characters perform two or more medical procedures consistent with their positions and patients' health care needs.	5 Female medical characters perform all medical procedures consistent with their positions and patients' health care needs.

Race & Gender	0 No female medical characters are present in the episode.	1 At least one white female medical character is present in the episode.	2 At least one female medical character is a woman of color in the episode.	3 Two or more female medical characters are women of color, representing the same ethnicity in the episode.	4 Two or more female medical characters are women of color, representing two different ethnicities in the episode.	5 Three or more female medical characters are women of color, representing three or more different ethnicities in the episode.
Sexual Harassment	0 No female medical characters are present in the episode.	1 There are four or more instances of sexual harassment present in the episode.	2 There are three instances of sexual harassment present in the episode.	3 There are two instances of sexual harassment present in the episode.	4 There is one instance of sexual harassment present in the episode.	5 There are no instances of sexual harassment present in the episode.