

Assessing and improving patient's awareness of breast & cervical cancer screening recommendations

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I. Introduction

My project proposal was focused on nutrition and pregnancy. I was hoping that once I arrived at Central Mississippi Health Services (CMHS) I would be able to narrow this focus. Once I arrived at CMHS I realized that there was not a large pregnant patient population, but there were many gynecological appointments as well as many female patients of all ages. I then worked with providers at CMHS to identify a project. In my first week I saw that health literacy was an issue, especially understanding how to navigate the healthcare field. I decided on a project by coupling these observations with my interest in women's health, and the universal confusion around cervical and breast cancer-screening recommendations. I wanted to have my project both evaluate knowledge, provide information, as well as provide data to CMHS that would be beneficial in understanding their current gynecological care.

II. Background

The importance of breast and cervical cancer screening in preventing morbidity and mortality has been well documented by medical literature. (1, 2) According to the Centers for Disease Control and Prevention, in 2009 in the U.S. 12,357 women were diagnosed with cervical cancer and 3,909 women died from cervical cancer. The CDC

noted that over the past 40 years these numbers have declined. This decline can be attributed to the increase in regular screening (pap smears). (3) As demonstrated in Figure 1, the Mississippi cervical cancer incidence and death rates are greater than the national averages. Furthermore, at the Mississippi State and national level, there is a disparity between races; Black women have a higher cervical cancer incidence and death rate than White women. Figure 2 demonstrates that Mississippi has a slightly lower breast cancer incidence rate, but a higher death rate compared to the national rates. In addition, Black women in Mississippi have a high incidence and death rate compared to White women. (4)

Breast cancer screening tools include mammography, clinical breast exams, and self-breast exams. The United States Preventive Services Task Force (USPSTF) updated their recommendations for screening in 2009 (5). In addition, other national organizations have also updated their recommendations for screening, some of which conflict with USPSTF (6). The cervical cancer-screening tool is a pap smear. In addition HPV tests and STD tests can provide information about risk associated with cervical cancer. The USPSTF also updated their recommendations for cervical cancer screening, in 2012 (7). These guidelines also conflict with other national organizations' recommendations (8). The recent updates, and the conflicting recommendations from organizations create confusion for both healthcare providers and patients. This confusion can result in inconsistent screening because patients and providers are unsure when and how often to screen. The goal of my project was to clear up this confusion for patients, and help them dissect the recommendations based on their individual needs. In addition, I hoped to

promote a sense of empowerment with the women in understanding their own healthcare needs.

The objectives of my project were to:

1. Evaluate patients' current knowledge and health behaviors related to breast & cervical cancer screening.
2. Provide information to patients on: breast & cervical cancer incidence, death rates, risk factors, screening recommendations, and available resources.
3. Discuss with patients when they felt they should be screening in the future based on the recommendations and their personal health history
4. Evaluate clinic's effectiveness in adhering to recommendations

III. Methodology

During the first two weeks at CMHS I identified a project and created my tools. I then administered my survey and presentation for three weeks. I used my final week to review the results and create my final paper.

I created a 10-minute survey that addressed the patient's knowledge of breast and cervical cancer screening recommendations, relevant health history, current screening practices, and demographics. I designed the survey by modifying the 2010 California Women's Health Survey and the 2012 Health Information National Trends Survey (HINTS) (9, 10, 11). The appendix includes a copy of my survey. I then presented a 5-minute presentation on breast and cervical cancer, including: incidence and death rates, symptoms, prevention, screening recommendations, and available resources. This presentation was created using information from the Centers for Disease Control and Prevention and the Mississippi Breast and Cervical Cancer Early Detection Program (12,

13). The appendix includes a copy of my PowerPoint. Following the presentation, I discussed with patients when they felt they should be screening in the future based on the recommendations and their personal health history. Consciousness to clinic flow, I gave a survey and presentation to every available female patient at the clinic between the ages of 17-85.

In order to create the presentation and evaluate the results, I needed to decide on which screening recommendations I was going to use and compare adherence to. In order to inform this decision I talked with providers about their clinical practices, and I consulted the Mississippi Breast and Cervical Cancer Early Detection Program coverage (13). I compared these practices to the U.S. Preventative Services Task Force (USPSTF), American Cancer Society (ACS), and American College of Obstetricians and Gynecologists (ACOG) recommendations (5, 6, 7, 8).

In order to evaluate clinic's effectiveness in adhering to recommendations I worked with Mr. Robert Funches. He had already collected information on number of pap smears and mammograms for the Uniform Data System report for the Bureau of Primary Health Care (14). In addition mammogram information was collected for a Community Empowerment Grant (15).

IV. Results

Demographics

Over 3 weeks, I talked with 34 female patients. The majority was at the Southwest clinic, but a few were at the Winter St. clinic. The women ranged in age from 17 to 82 years old, the average age was 51.5 years old. The majority of women had insurance,

28/34 (82%); 16/34 (47%) was covered by Medicare or Medicaid. 6/34 (18%) of the women didn't have insurance; 1 was without insurance within the past year, 1 was without within the past 2-5 years and 4 were without for more than 5 years. The majority of respondents were African American or Black (94%). The majority of respondents, 19/34 (56%) had an annual household income of less than \$15,000, with 16/34 (47%) less than 10,000. Education level varied from some high school (29%) to a postgraduate degree (6%). Relationship status was varied, 18% married, 18% divorced, 15% widowed, 15% separated, 35% never married, 3% member of an unmarried couple.

Knowledge of screening recommendations

Cervical cancer:

The American Cancer Society (ACS), American College of Obstetricians and Gynecologists (ACOG) and U.S. preventive Services Task Force (USPSTF) all recommend screening to start at age 21, regardless of onset of sexual activity. These organizations also agree that screening should be done every 3 years for women aged 21-65 years old. (8) Only 2/34 (6%) said 21, the range of responses was from 10-30. Many women felt that screening should start before the recommended age of 21, 56% (19/34) said before 18 years old, an additional 12% (4/34) said when girls get their period, and additional 12% (4/34) said when girls start being sexually active. See figure 3 for the responses to how often should pap smears be done. Only 9% of women thought that screening should occur every 3 or more years. Note, this was a poorly written answer choice because the recommendation is every 3 years, not or more than 3 years. The majority of women thought that pap smears should be done every year (68%).

Breast cancer:

Based on the American Cancer Society and CMHS clinical practices mammograms for screening, I am using 40 years old as the age to start mammograms and annual mammograms (6). 18% said “40”, the average age was 31.5 (n=29) and the most common response was 30 years old. The responses ranged from 12 to 50 years old. The majority of women said that mammograms should be done every year 24/34 (71%). Clinical breast exams are recommended every 1-3years for women age 21-39 and every year for women 40 and older (6). Respondents’ answers to the age to start clinical breast exams ranged from 10 to 50 years old, with an average age of 23.4 (n=28), and 6% said 21 years old. The majority of women (56%) said clinical breast exams should be done once every year. Figure 3. Shows the trends in how often women thought screening should be done.

Current screening practices

Cervical cancer screening:

The majority of respondents between the ages of 21-65 had received a pap smear in the past 3 years, 23/26 (88%). The 3 that hadn’t received a pap smear in the past 3 years all had insurance within the past year. Many of the respondents have had a hysterectomy, 16/34 (47%). 7 women reported having a total hysterectomy, 4 of which had received a pap in the past year, 1 within the past 2 years, and 2 more than 5 years since their last pap smear. This information may suggest that pap smears are done in women who have had a total hysterectomy, although data on date of hysterectomy was not collected.

Breast cancer screening:

The majority of respondents between the ages of 40-75 reported having a mammogram before, 22/24 (92%). In addition, the majority reported having a mammogram in the past year, 15/24 (63%). Figure 4 shows the reasons why women didn't have a mammogram in the past year.

Of the 3 women surveyed over the age of 75, 2 had a mammogram in the past year. One was 76. The other woman was 80 years old and reported it was done as a routine. Of the 7 women under 40 years old, 4 (age range 30-38) reported having a family history of breast cancer. One reported it was her sister, the other 3 reported aunts or grandmothers.

A 17-year-old patient reported having a clinical breast exam within the past year as a routine. 5/6 (83%) of respondents between the age of 21-39 had received a clinical breast exam within the past 3 years. All the women (27/27) over 40 years old reported having a clinical breast exam before, but only 15/27 (56%) reported having one within the past year.

Relevant health history

None of the respondents reported having been diagnosed with cervical cancer, but 11/34 (32%) had an abnormal pap smear. In addition, 18/34 (53%) having been tested for sexually transmitted diseases before, of those, 8/18 (44%) was diagnosed with an STD. Only 2/34 (8%) had the HPV vaccine, all three shots. Most women had never heard of HPV or the HPV vaccine.

16/34 (47%) reported having an abnormal breast exam, 1/34 (3%) had been diagnosed with breast cancer.

Future screening

Part way through the 3-week survey administration I added follow-up questions after the presentation regarding when the women felt they should be screening in the future. 14 women were asked these questions.

Cervical cancer screening: All the women who fell into the criteria for pap smear (11/11) felt they should have a pap smear within the next 2 years. Three women felt they didn't need pap smears anymore, 1 was 80 years old and 2 had a total hysterectomy. 6/14 women felt that they didn't need to be tested for STDs, 4/6 women were not sexually active in the past year. The other 8 women felt that should be tested within the year or two years.

Breast cancer screening: All the women (14/14) felt that they should have a clinical breast exam within the next 2 years, depending on if they had one this year or not. Most women (6/9) felt that they should have a mammogram within the next year. 2/9 was under 40 years old, and said they planned to have a mammogram when they turned 40. 1/9 was over 75 years old and thought she no longer needed it.

Central Mississippi Health Services Screening Practices

Cervical cancer: CMHS collects information related to cervical cancer for the Uniform Data System report for the Bureau of Primary Health Care. The annual data included counting the number of female patients age 24-64, number of pap smear visits, number of pap smear patients. In addition the data included sampling 70 charts for

number of pap smears. These two sets of data provide information on percent of pap smears per chart or per female patients. As shown in Table 1. the data is conflicting. (14)

For a Community Empowerment Grant CMHS collected data on number of mammograms in 2011 and from September 1, 2012 – June 30, 2013. The data is shown in Table 2. (15)

V. Discussion

Based on the demographics of the respondents, this set of patients was reflective of CMHS patient population. The results showed that the patients' knowledge of screening recommendations was limited. Breast cancer screening (mammograms and clinical breast exams) recommendations were known better than cervical cancer screening (pap smear) recommendation. Most women seemed to think that pap smears should be done as soon as a female started menstruating or being sexually active. This thought is inline with previous recommendations. An interesting pattern was that the majority of respondents thought screening should be done on an annual basis, irrespective of screening tool. Again this pattern may represent the focus on annual well women exams and previous recommendations. Although knowledge of recommendations was limited, respondent's actual screening practices more closely aligned with the recommendations. This may represent the providers' ability to screen women, even if the women aren't actively seeking it.

Patients were receptive to being surveyed and listening to my presentation. During my presentation, it became clear that many women thought a pap smear was testing for "everything down there". This attitude meant that some women were unaware

if they were tested for STDs or not. In addition, many women were not aware of the Mississippi Breast and Cervical Cancer Early Detection Program and that this was a resource to receive screening even if one is uninsured. Furthermore, I found it personally difficult to discuss with women if they were above the age for screening.

The clinics data was inconclusive in its effectiveness in providing pap smears. The two data sets conflicted with each other. In addition, since screening recommendations is for a pap smear every 3 years, it is difficult to determine adherence given the data. The clinics data related to mammograms showed that the clinic should increase its mammogram screening, in order to screen all patients eligible.

VI. Recommendations

Based on the results from my survey it is clear that healthcare providers should continue to remind patients when they are due for screening. In addition it is important that providers explain why and what tests are being used for. Furthermore, explaining the recommendation and shaping it for the patients' unique situation is important, considering health history, personal values, and financial situation. It is vital that providers collect a thorough health history, including relevant risk factors (family history of breast cancer, hysterectomy, sexual activity), in order to make an appropriate recommendation. Additionally, providers must be aware of available resources, specifically the Mississippi Breast and Cervical Cancer Early Detection Program, and share this information with patients to assist them in receiving care. Finally, using brochures and flyers for community resources in the waiting room and patient rooms would be helpful to promote regular screening.

Future scholars projects related to this topic could include creating a resource on available community assistance programs. This resource could be broader than breast and cervical cancer, expanded to other preventive screening programs with funds for uninsured patients. In addition, a future scholar program could be to create posters of relevant health topics for patient rooms.

VII. Conclusion

In conclusion, the respondents' knowledge of breast and cervical cancer screening recommendations was limited, but screening practices did adhere to guidelines. This suggests that even if knowledge is limited, screening still occurs because of the guidance of healthcare providers. In addition patient's knowledge of what a Pap smear tests for was limited, suggesting that it is important to explain to patients what a test is and why it is used. Furthermore, related screening, for STDs, specifically HPV knowledge and testing was limited. The clinic's data on screening showed that mammogram screening should be increased. The data about pap smears was inconclusive. In order to improve patient knowledge and screening practices it is important to continue to discuss with patients their needs and explain the screening test and recommendations.

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