Published in final edited form as:
Womens Health Issues. 2009 ; 19(6): 425–433. doi:10.1016/j.whi.2009.07.002.

One More Hurdle to Increasing Mammography Screening: Pubescent, Adolescent, and Prior Mammography Screening Experiences

Eileen Thomas, PhD, RN [Assistant Professor] and
University of Colorado Denver College of Nursing, 13121 E 19th Avenue, Room 4311, Mail Stop: C288-18, Aurora, CO 80045. Office: 303 724-8540 Fax: 303 724-8560

LaToya Usher, MS, RN [Health Systems Specialist]
Federal Bureau of Prisons, Federal Medical Center-Lexington, 3301 Lestown Road, Lexington, Kentucky 40511. Office: 859-255-6812

Eileen Thomas: Eileen.thomas@ucdenver.edu; LaToya Usher: LUsher@BOP.org

Findings from previous research (Thomas, 2003, 2004, 2006) and findings from this study which included White, Hispanic, African American and Native American women suggest that "breast conflict" is a latent tension underlying experiences that occur during adolescence. Breast conflict is defined according to the authors as: The oblivious discord women experience regarding personal feelings about their breasts and how women define themselves in relation to their breasts based on messages received from peers and society, in other words, the conditions for conflict are present but women are neither aware of, nor do they recognize they are defining themselves in relation to their breasts. The author posits that this breast conflict appears to persist throughout the life span. Breast conflict can have a negative influence on a woman's beliefs and attitudes regarding breast cancer and her decision to participate in mammography screening. If this conflict is not identified and addressed, breast conflict could continue throughout a woman's life time resulting in continuing underutilization in, or inconsistent use of mammography screening. The authors' working assumptions is that breast conflict is likely a multidimensional construct with both detrimental and potentially beneficial effects. Detrimental effects from not seeking mammography screening result in increased breast cancer mortality and morbidity, while the beneficial effects would result in more positive breast cancer outcomes, the result of early detection and treatment. The authors posit that breast conflict is a process that can increase (detrimental effects) or decrease (beneficial effects) depending on unanticipated events that may occur across a woman's lifespan, for example, death of a family member due to breast cancer. The purpose of this paper is to report the findings from a qualitative study that lead the author to the identification of a new concept identified as *breast conflict*.

Background and Significance

Cancer, the second leading cause of death in the United States, is a significant burden in terms of morbidity, economic and emotional costs. Breast cancer is the most common non-skin cancer and the second leading cause of cancer-related death (after lung cancer) in women worldwide

(World Health Organization-WHO, 2005). Approximately $8.1 billion dollars is spent each year in the United States alone on the treatment of breast cancer (Brown, Riley, Schussler, & Etzioni, 2002). Survival rates are dependent on access to, and utilization of early detection services. Breast cancer death rates remain high among ethnic minority women despite a lower incidence rate compared with White women (NCI, 2007). The American Cancer Society (ACS, 2003) reports that the primary reason is a delay in time to diagnosis, resulting in poor prognosis. Encouraging not only early but regular mammography screening has been a major challenge. Despite ongoing research to understand barriers to mammography screening, the rates of mammography use among ethnic minority women have not increased substantially. In fact, recent studies report a decrease in mammography screening among all racial groups (Breen et al. 2007). Preliminary data strongly suggest that women's early experiences pertaining to their breasts and associated gender issues have a significant influence on women's mammography screening behaviors (Thomas, 2003, 2004, 2006). Understanding barriers to mammography screening among Whites, Hispanics, African Americans, and Native American women is a critical step in the goal of increasing screening.

In the U.S., the occurrence of breast cancer is highest for White women, followed by African Americans, Asians, Hispanics/Latinas and Native Americans. African American women are more likely to die from breast cancer within five years after diagnosis than White women. Survival statistics for Hispanic/Latina women are also poor. H Hispanic/Latina women are 1.5 times more likely to die from this disease than White women (Amend, Hicks, & Ambrosone, 2006; Dignam, 2000; Newman, 2005; Pisani, Parkin, Bray, & Ferlay, 1999). Although breast cancer is diagnosed about 40% less often among Hispanic/Latina women, it is often diagnosed at a later stage than in non-Hispanic women. Lower use of breast cancer screening, such as mammography, may contribute to the delay in diagnosis among this population. After accounting for differences in age, compared to White women, Hispanic/Latina women are almost three times more likely to have been diagnosed at a later stage of the disease; and about two times more likely to have larger tumors with characteristics that predict poorer clinical outcomes (Watlington, Byers, Mouchawar, Sauaia, & Ellis, 2007).

Native American women pose unique challenges in terms of obtaining accurate statistics on prevalence and receiving timely treatment. Mortality rates from breast cancer among Native American women are likely underestimated for several reasons. First, many Native American women who have breast cancer do not get biopsies and only biopsy confirmed breast cancer is reported in cancer statistics and second, many Native American women who die off the reservation are listed as “White” on their death certificates (Burhansstipanov, 1996). Cancer rates that were previously reported to be lower in Native Americans have been shown to be increasing in the past 20 years. Additionally, there is no single national database that accurately presents comprehensive cancer data for Native Americans. Controlling for age, stage and grade of disease, and census-tract poverty level, Native American women are four times more likely than other racial ethnic groups to receive their first breast cancer-directed surgery more than 6 months after diagnosis (Wilson et al., 2000).

There has not been a significant improvement in breast cancer mortality rates among women from ethnic minority groups. In 2000, there were over 30% more breast cancer deaths among African American women compared with Whites (Ries et al., 2003). Research findings suggest “first generation Hispanic American women with breast cancer have a relative delay in the timeliness of their cancer diagnosis and should be targeted in interventions designed to increase the use of breast cancer screening” (Herdeen & White, 2001, p. 123). Breast cancer is the leading cause of cancer death among this population. Overall, ethnic minority women consistently have disproportionately poorer breast cancer outcomes. Identifying breast cancer in its early stages is the key to successful treatment.

Mammography screening has not increased significantly among ethnic minority groups; in fact, researchers report mammography rates have been declining over the past five years (Chagpar, Polk, & McMasters, 2008; Breen et al. 2007). Therefore, it is essential that researchers consider new and innovative approaches to better identify and understand barriers to mammography screening and early breast cancer diagnosis among ethnic minority groups. While many women have had at least one screening mammogram, many women have had no screening or have not been consistent with recommended mammography screening guidelines. For women to benefit from mammography, regular screening is needed. Despite campaigns for early breast cancer detection, many women still do not obtain mammography screening as recommended by ACS.

Access to health care alone is not sufficient for mammography screening to take place. Native Americans, for example, are eligible for free comprehensive health care through the Indian Health Service (IHS), which include routine mammography screening for women 40 years of age and older, yet only half choose or are able to use these services. Some Native American women find that no IHS facilities are accessible to them and IHS usually does not cover the cost of care provided outside its system (Cobb & Paisano, 1998). Among women with access to health care, Ryerson and colleagues found a statistically significant decline in mammography screening among women between the ages of 40 and 59 who were insured, particularly among White non-Hispanic women (Ryerson, Miller, Eheman, Leadbetter, & White, 2008). And the National Cancer Institute reports that in 2005, mammography screening rates fell for White non-Hispanic, Black non-Hispanic, and Hispanic women (NCI, 2007). The literature on breast cancer screening behaviors and barriers to screening among ethnic minority women is substantial. However, researchers have not explored barriers to mammography screening in relation to women's life experiences concerning their breasts, particularly experiences that occurred during adolescence. This study sought to explore among a racially and ethnic diverse group of women, their life experiences in relation to their current mammography screening behaviors.

Framework

Critical social theory and feminist perspectives were used as the critical lens, or framework, that guided this investigation. Breast cancer screening behaviors of women and minority women, in particular, relate not only to the larger picture of social, economic, and cultural oppression, but are related to gender issues of being a woman or an ethnic minority woman in the United States. The focus of this study was on examining covert barriers to women's mammography screening behaviors through a feminist perspective within the framework of critical social theory.

Feminist perspectives and critical social theory take into consideration the social context represented in the lived experience of the participants. One historic and contemporary perspective from critical social theory that influenced this inquiry is that language is paramount to how people comprehend meaning and create knowledge (Calhoun, 1995). Rather than separating women's experiences from the contexts in which they occur, feminist scholarship recognizes women's experiences as connected to the larger political, social, and economic environment. The use of feminist perspectives in this study helped the investigator to see patterns and interrelationships, as well as implications for questions that an inquiry from a non feminist perspective may not have revealed.

Methods

This qualitative descriptive study used narrative methods to generate data. The purpose of narrative methods in research is to gain an understanding of how people think or act in the

context in which they live through their stories. Written informed consent was obtained prior to the start of data collection. Participants were asked to share written or audio tape recorded narratives about specific events that occurred throughout their lives related to their breasts, mammography screening experiences, and current mammography screening behaviors. For the purpose of this study, no distinction was made between the terms stories and narratives, the terms were used interchangeably. Narratives were selected for this investigation because this type of data provided depth to the personal experiences that were not likely to be attained by interviews alone.

Participants and Recruitment

Thirty-six White non-Hispanic, African American, English-speaking Hispanic/Latina and non-pueblo dwelling Native American women, age 42 and older, without a personal history of breast cancer were recruited to participate in this study. Recruitment flyers were placed in local newspapers and community newsletters. Participants were recruited from response to the ads as well as word-of-mouth referrals. Recruitment and data collection took place over an eleven month period, between 2005 and 2006 in two counties located in the central regions of a southwestern state. Eight women, 50 to 66 years of age participated in the Hispanic group, nine were African American participants, 42 to 60 years of age, eight were non-pueblo dwelling Native American women, 43 to 65 years of age, and 11 participants were White non-Hispanic participants ages 56 to 69 years.

The study was reviewed and approved by a university institutional review board. All participants were asked to choose a pseudonym for identification purposes. Participants were offered the option of writing or recording their stories on audiotape. A notebook or tape recorder was provided to the participant based on their preference. The women were asked to share at least three stories about experiences regarding times in their lives when their breasts may have had special significance for them. In addition, the women were asked to share a story about a mammography screening experience. If the participant had never had a mammogram, the participant was directed to discuss the reason for not having a mammogram. All the participants reported having at least one mammogram, although many reported they had not had a mammogram within the past two years.

At the end of a four week period, the stories were collected and reviewed. Follow-up audiotape recorded interviews were conducted for clarification and elaboration. Interview questions were developed from the individual participants' personal narrative. During the follow up interview, participants discussed their current mammography screening behaviors. Narratives (audiotape recorded or written) and interviews were transcribed verbatim by a paid transcriptionist. A total of 36 interviews were conducted and redundancy of responses occurred; continued data collection at the end of the study added little new information. The women shared stories about early experiences during puberty and stories about their mammography screening experiences. The 4 week period allowed the women time to reflect on times in their lives when their breasts were significant to them and the subsequent follow up interview provided clarity for the researcher.

Data Analysis

Initial descriptive line by line coding, using the words or phrases of the participants, involved looking for repetition within and across the transcripts. The list of codes was examined to identify common concepts that described participants' descriptions and experiences concerning their breasts. Similar code terms and phrases were grouped together and then regrouped to include all of the identified concepts into categories of similar topics. Looking for relationships, the categories were resorted into groups of similar content and meaning. The categories were further reviewed, paying particular attention to similarities and differences in women's breast

related experience, including their mammography screening experiences. Finally, a theme was identified by reviewing and organizing the categories into a common topic. Two colleagues, experienced in qualitative data analysis, coded the transcripts independently to verify the analysis process and the resulting categories and theme.

Multiple contacts with the participants (three in person encounters and multiple methods of data collection utilizing narratives and in person interviews) contributed to the trustworthiness of the data. In addition, the involvement of peers during the analysis process aided in reducing bias that can occur when a single researcher analyzes text. The use of both narratives and follow up interviews created an additional strength and enhanced the credibility of the data.

Findings

The participants were asked to share experiences about times in their lives when their breasts may have had special significance for them. In every case, among all racial and ethnic groups, the women shared information about experiences during puberty, particularly experiences of being teased by both their peers (males and females) and adults within and outside their family structure. There were no differences in the women's early life experiences regarding stories about their breasts based on their race/ethnicity. Women in each racial/ethnic group shared stories about painful mammography experiences and stories about family norms or teasing that occurred during puberty regarding their breasts. Teasing centered on situations where the women perceived negativity regarding body image directly related to women's breasts.

Categories

In qualitative analysis, code words or phrases are identified by reviewing the raw data (transcripts). A group of code words or phrases that have common elements that relate to a particular set of patterns or recurrences throughout the transcripts are then organized into clusters of similar topics. The major categories, identified during the analysis process, that may influence mammography seeking behaviors were: adolescent teasing, breast and body image, family norms and values, media/societal influences, and mammography screening experiences (Table 1). Recognizing that human realities are complex, a qualitative methodology involves a focus on human experiences. Using a narrative approach, this study focused on discovering associations between women's experiences regarding their breasts, including mammography screening experiences and their current mammography screening behaviors. Gaining insight in the area of women's experiences across the lifespan may aid in developing new strategies to assist women in their decision to participate in mammography screening.

Adolescent Teasing/Breast and Body Image—Shroff & Thompson's (2006) research supported the importance of specific friend and peer influences as potential risks factors for body image, eating disturbances and self-esteem among adolescent girls. The opinion of peers is highly valued by adolescent females, thus impacting satisfaction with body image. One White participant stated:

> From that point on (8th grade) I was conflicted about my breasts. There were girls who were jealous … they hadn't developed yet. Mean girls said, “Jeez, what size ARE you?” We were [myself and two other girls] subjected to as much off color humor as could happen in 1959. So there I was with boys who might never look up at my face again and girls who were as uncomfortable as I was.

A woman's body image includes the symbolic meaning and importance of her breasts (Spencer, 1996; Kraus, 1999; Gordon, 2006). Body image has been defined as how a person views her physical appearance. Society's standards for an ideal body image when incorporated into a person's evaluation of their physical appearance can contribute to an altered body image (Roy

& Andrews, 1991). Studies that address body image are typically related to body size or eating disorders and perceptual studies of body image most often examine a person's accuracy in their body size estimates. However, perceptual dimensions of body image can also be related to social appearance comparison of peers or images seen in the media (Pelican et al., 2005; Shroff & Thompson, 2006). Alterations in internal or external and environmental stimuli can alter one's satisfaction with body image in the absence of breast cancer. Studies suggest that women who believe their breasts are important to their feelings of femininity and attractiveness experience greater dissatisfaction with their body image after breast cancer treatment (Kraus, 1999: Martin & Hanson, 2000). A Native American woman explains:

> If I ever lost my breast, I don't think I would like it, it would do something to my self confidence … it does make you feel like a woman, a whole woman when you have both breasts. Your breasts have an impact on perceptions of yourself as a woman. The thought that it [breast] might be cut away, even partial, I think it's a loss to a woman … a woman loses a part of their self identify during that time.

This dissatisfaction with body image can occur prior to, or because of a threat of a breast cancer diagnosis. In addition, dissatisfaction with body image can be the result of teasing. For example, a White participant stated:

> I used to get teased by some boys and called bird legs and flat chest. This teasing probably has never completely faded from my memories, I think it has always somehow had an impact on my perception as a woman … I think somehow I have felt less attractive because of small breasts. As I grow older, I have given up on my breasts.

Teasing which occurs during adolescence regarding girls' breast size and shape could influence women's perceptions about their breasts and body image and later in life their mammogram beliefs and behaviors. Vander Wal and Thelen (2000) found that peer teasing is a significant predictor of body image dissatisfaction. Body image factors may influence many health promotion behaviors (Grogan, 2006), including participation in mammography screening.

Media/Societal Influence and Family Norms and Values—The media plays a critical role in the way females perceive their bodies. The ideal of the perfect body is impacted by diverse advertisements, retail, and the entertainment industry. All of this influences the culture of the ideal of beauty and attractiveness (Jung & Lennon, 2003). As early as adolescence, females are bombarded with the appearance of the body and become preoccupied with how they believe their body should look compared with what is seen in the media. Researchers found a strong causal link for women and girls between socio-cultural norms for ideal appearance and appearance-contingent self-worth (Strahan et al. 2008). When confronted with socio-cultural messages, women integrate them into their self worth and self esteem. With repeated exposure to societal messages, women continue to measure their self worth based on appearance that has been dictated by the societal norms. An African American participant reported: “Society wants and expects women to be shaped a certain way, like the movie stars and models you see in the movies.” A major reason given for not participating in breast cancer screening includes the fear of a breast cancer diagnosis. Thomas (2006) suggests that in addition to symbolic meaning and media or societal views, family norms and values can also influence a woman's decision to participate in mammography screening. Health behaviors that begin during adolescence form the foundation for health behaviors that are carried into adulthood. Culture, family norms and values contribute to the experience of health and prospective health behaviors. A Hispanic participant reflects back on an experience as a teen:

> Some girls slouched and tried to hide the fact of their development but I never did. I think one of the reasons was that my father instilled the belief in all his kids that we

> should be proud of who we were and carry ourselves with our head held high and square shoulders.

A Native American participant shared: "… grandmother always told me, don't show off your breasts, you know you're not supposed to show that part of your body, so it was always wrapped up in layers."

Parents are important role models throughout childhood and adolescence (Harper, 1990). In addition to serving as role models for health promotion behaviors such as proper nutrition and exercise, parents can be instrumental in the development of life long health related behaviors by participating themselves in cancer screening activities and talking with their adolescent daughters about health promotion and disease prevention activities such as mammography screening. Mothers' participation in breast self- examination and mammography screening can encourage similar behaviors in their daughters. Open discussion further reinforces the importance of routine physical exams and breast cancer screening thus setting the stage for the development of life long healthy habits.

Mammography screening experiences and current behaviors—Over half (58%) of the women stated they had no plans on returning after their first mammogram experience. All but two women reported the benefits of mammography and early screening even though the majority of participants reported a less than favorable first mammography screening experience. All of the participants shared a story about their first mammography screening experience and current mammography screening behaviors. Following are participant comments regarding their first or an early mammography screening experience and current screening behaviors.

One White woman reported: "I had a double set of mammograms taken as the first set was 'cloudy' whatever that means. No report came in the mail, three years later I went back for another mammogram." A Hispanic woman shared the following experience regarding her first mammography screening experience:

> I believe I was 52 years old. The room was cold; the machine even colder, while the technician's attitude was near arctic. I awkwardly stooped over as she squeezed my breast in a vise like thingy. I thought how much is this really different from a porno flick?

Another White woman shared:

> The woman who assisted me with my mammogram was very kind and caring … but I was embarrassed and felt ashamed when I exposed my breast. I still feel ashamed. I have never returned for a breast exam or mammogram since.

Referring to a mammography experience, an African American woman stated:

> Having another person touch your breasts so meticulously is typically performed in much more intimate circumstances. To have my breasts, a symbol of womanhood, handled that way went against how I typically view myself and them. To have someone manipulating that portion of my body with such clinical detachment stood in stark contrast with the messages we are bombarded with constantly about breasts. I found myself thinking of how breasts seem to have status and maybe personality separate from the rest of the body.

In addition to a fear of the mammogram examination, finding a lump and fear of a breast cancer diagnosis was a concern for one African American participant:

> I was afraid to have the mammography because of stories I had heard, but I was even more afraid of what the cause of this lump in my breast was. I did have the

> mammography and it turned out to be one of the most painful experiences that I have had to go through. I do understand the importance of getting the mammography. I do understand that prevention and early detection is the best way to save lives. I may go back, it won't be easy.

Because of a painful first mammogram experience, some women choose not to return for their second mammogram as defined according breast cancer screening guidelines. After having her first mammogram at the age of 40, this White participant did not have another mammogram for over 10 years:

> I had my first mammogram at the age of 40. As most women will agree, it was not a pleasant experience. All the jokes you hear about laying down and having a car run over you were real close to my first experience. At age 53, I had another normal mammogram.

Findings from this study are congruent with findings from other qualitative studies (Phillips, Cohen, & Tarzian, 2001; Thomas, 2004; Cronan, 2008). Commonly cited barriers to mammography screening include fear of finding a lump, lack of knowledge about the need for mammography screening and fear of the pain associated with mammography.

Overall Theme

Breast Conflict—The women expressed various forms of conflict regarding their breasts. For example, some of the women shared concerns about showing versus not showing their breasts. For some women, established family values dictated women's comfort level regarding exposing their breasts either in social or medical settings. Some of these women found it difficulty to separate exposing their breasts regardless of the setting. Some of the women shared that breasts can bring both positive and negative attention. One African American woman shared, “I have mixed feelings about my breasts, I love them and I hate them. Another Hispanic woman stated, “I was taught to cover my breasts but as I got older I found out that men are fixated on breasts so I started wearing skimpy clothes to get attention.” However, another Hispanic participant shared, “I had mixed feelings about my breasts because my breasts brought both good attention and unwanted attention” and another Native American woman shared, “Breasts are good because they give life to your children when you breastfeed but breasts can also kill you if you get cancer.”

Discussion

This study was designed to explore women's life experiences concerning their breasts and their current mammography screening behaviors. Regardless of race/ethnicity, all the women shared stories about teasing that occurred during adolescence and stories about their thoughts regarding the influence of the media on their self image related to their breasts. Family norms and values were discussed regarding the emphasis on modesty concerning women's breasts. The findings did not indicate any differences in the women's early perceptions of their breasts in relation to their current mammography screening behaviors. The women in this study who admitted to having a mammogram within the past two years shared similar stories about early teasing and the impact of the media on their identity and expressed concerns regarding their identity if they were diagnosed with breast cancer. These same women had a relative or close friend with breast cancer who did not survive, which they stated influenced their decision to participate in mammography screening. However, these women also shared their reluctance to participate in mammography screening per ACS guidelines and admitted they were not always consistent with screenings. Findings from this study demonstrate the need to consider the impact of past experiences on women's current health promotion behaviors related to mammography screening. Despite efforts to promote breast cancer screening, particularly among ethnic minority populations, exploring women's mammography screening behaviors in

relation to experiences concerning specific life events has not been a focus of public health efforts to decrease the disparity breast cancer outcomes. As health care providers continue to care for more people from diverse ethnic and racial backgrounds, findings from this study provides a more in-depth understanding about the influence of past experiences on health promotion behaviors, specifically, mammography screening behaviors. In addition, findings may lay a foundation for the development of a model that addresses ethnic minority women's health promotion behaviors related to mammography screening. Results from this study revealed barriers to mammography screening that had not been considered in the past, experiences that occur during adolescence, such as teasing, media influence, and family norms and values.

A woman's body image includes the symbolic meaning and importance of her breasts (Spencer, 1996; Kraus, 1999; Gordon, 2006). Thomas (2006) suggests that, in addition to symbolic meaning and societal views, family norms and values, and other experiences which occur during adolescence, can influence a woman's decision to participate in mammography screening. Body image factors may influence many health promotion behaviors (Grogan, 2006), including participation in mammography screening. Findings from this study suggest perceptions formed during puberty and adolescence can leave women with feelings of shame and conflict regarding their breasts. During the developmental stage of adolescence, young people strive for independence and begin to make decisions that impact them for the rest of their lives. Findings from this study suggest perceptions formed during puberty and adolescence can leave women with feelings of shame and conflict regarding their breasts.

Health care providers should consider assessing appearance-related teasing in their patients' lives to identify women who may be at risk for body image disturbance functioning that could result in underutilization of mammography screening and other health promotion behaviors. Mammography technicians should be educated in the long term implications of women's perceptions of “bad” mammogram experiences. Negative body image resulting from a first mammogram experience, media images, early teasing, or family norms and values can have profound effects on a woman's self perception. Feminine beauty represented in women's magazines or the movies reinforce stereotyped portrayals of femininity. Studies involving women with and without breast cancer, and studies involving post mastectomy patients suggest links with breast dissatisfaction and diminished self esteem or doubts about one's femininity (Grant, 1996). A woman's definition of self is often based on a lifetime of feedback about having breasts and the possibility of breast cancer threatens this self perception (Wilmoth, 2001).

This study has several strengths that highlight the importance of the findings. The present study is the first to explore women's experiences in relation to their current mammography screening behaviors. In addition, the inclusion of women from four racial/ethnic groups provided the opportunity to explore women's experiences and behaviors from a multicultural perspective. However, the women who participated in this study were from a select geographical area and select group of women who saw the recruitment flyer or advertisement for the study in the newspaper. It is likely that women from other parts of the United States might share different experiences. Regardless of race/ethnicity, negative body image resulting from early life experiences, particularly those experiences that occur during adolescence can conceivably have an impact on health promotion behaviors such as mammography screening. Future research will include testing the author's breast conflict concept with a larger sample of women from diverse racial/ethnic groups.

Acknowledgments

This research was supported by a funding from NIH/NINR: 1-R15 [blinded by WHI editors] as part of a larger study. The first author acknowledges the National Institutes of Health National Center on Minority Health and Health Disparities, the women who shared their experiences and the editorial assistance of [blinded by WHI editors].

References

Addressing racial and ethnic disparities in health care. Fact Sheet. (2000, February). Rockville, MD: Agency for Healthcare Research and Quality (AHRQ Publication No. 00-PO41). 2006. Retrieved July 31, 2006, from http://www.ahrq.gov/research/disparit.htm

Amend K, Hicks D, Ambrosone CB. Breast cancer in African American women: Differences in tumor biology from European American women. Cancer Research 2006;66(17):8327–8330. [PubMed: 16951137]

American Cancer Society. Breast Cancer Facts & Figures 2001-2002. 2001. Retrieved July 31, 2006, from http://www.cancer.org/docroot/STT/content/STT_1x_Breast_Cancer_Facts_and_Figures_2001-2002.asp

American Cancer Society. Breast Cancer Facts & Figures 2003-2004. 2003a. Retrieved August 1, 2008, from http://www.cancer.org/docroot/STT/content/STT_1x_Breast_Cancer_Facts__Figures_2003-2004.asp

Breen N, Cronin KA, Meissner HI, Taplin SH, Tangka FK, Tiro JA, McNeel TS. Reported drop in mammography: Is this cause for concern. Cancer 2007;109(12):2405–2409. [PubMed: 17503429]

Brown ML, Riley GF, Schussler N, Etzioni R. Estimating Health Care Costs Related to Cancer Treatment From SEER-Medicare Data. Medical Care 2002;40(8):104–117.

Burhansstipanov, L. Overcoming psycho-social barriers to Native American cancer screening research. In National Cancer Advisory Board, Conference summary: Recruitment and retention of minority participants in clinical cancer research. Washington, DC: U.S. Department of Health and Human Services; 1996. NIH Publication No 96- 4182, pp 40-42

Calhoun, C. Critical Social Theory: Culture, history, and the challenge of difference. Cambridge, MA: Blackwell; 1995.

Chagpar AB, Polk HC, McMasters KM. Racial trends in mammography rates: A population-based study. Surgery 2008;144(3):467–472. [PubMed: 18707047]

Cronan TA, Villalta I, Gottfried E, Vaden Y, Ribas M, Conway TL. Predictors of Mammography Screening Among Ethnically Diverse Low-Income Women. Journal of Women's Health 2008;17(4): 527–537.

Dignam JJ. Differences in breast cancer prognosis among African American and Caucasian women. CA: Cancer Journal for Clinicians 2000;50(1):50–64.

Grant P. If you could change your breasts. Self-Magazine 1996:186–189. 210–211.

Harper, S. Causes, correlates and the functional role of global self-worth: a life span perspective. In: Kolligan, J.; Sternberg, R., editors. Perspectives of Competence and Incompetence across the lifespan. New Haven CT: Yale University Press; 1990. p. 67-98.

Herdeen AN, White E. Breast cancer size and stage in Hispanic American women, by birthplace: 1992-1995. American Journal of Public Health 2001;91(1):122–125. [PubMed: 11189803]

Jung J, Lennon SL. Body image, appearance self-schema, and media images. Family and Consumer Services Research Journal 2003;32(1):27–51.

National Cancer Institute. A snapshot of breast cancer: Breast cancer incidence and mortality trends. 2007. Retrieved August 29, 2008 from http://planning.cancer.gov/disease/Breast-Snapshot.pdf

Newman LA. Breast cancer in African American women. Oncologist 2005;10(1):1–14. [PubMed: 15632248]

Phillips JM, Cohen MZ, Tarzian AJ. African American women's experiences w with breast cancer screening. Journal of Nursing Scholarship 2001;33(2):135–140. [PubMed: 11419308]

Pisani P, Parkin DM, Bray F, Ferlay J. Estimates of the worldwide mortality from 25 cancers in 1990. International Journal of Cancer 1999;83(1):18–29.

Ries, LAG.; Harkins, D.; Krapcho, M. SEER Cancer Statistics Review, 1975-2003. Bethesda, MD: National Cancer Institute; p. 2006

Ries, LAG.; Melbert, D.; Krapcho, M.; Stinchcomb, DG.; Howlader, N.; Horner, MJ.; Mariotto, A.; Miller, BA.; Feuer, EJ.; Altekruse, SF.; Lewis, DR.; Clegg, L.; Eisner, MP.; Reichman, M.; Edwards, BK., editors. SEER Cancer Statistics Review. National Cancer Institute; Bethesda, MD: 2008. 1975-2005Retrieved August 15, 2008 from http://seer.cancer.gov/csr/1975_2005

Ries, LA.; Harkins, D.; Krapcho, M.; Mariotto, A.; Miller, BA.; Feuer, EJ.; Altekruse, SF.; Lewis, DR.; Clegg, L.; Eisner, MP.; Reichman, M.; Edwards, BK., editors. SEER Cancer Statistics Review. Bethesda, MD: National Cancer Institute; 2006. p. 1975-2003.Retrieved August 30, 2008 from http://seer.cancer.gov/csr/1975_2002

Roy, C.; Andrews, HA. The Roy Adaptation Model: the definitive statement. Norwalk, CT: Appleton Lange; 1991.

Shroff H, Thompson JK. Peer influences, body image dissatisfaction, eating dysfunction and self esteem in adolescent girls. Journal of Health Psychology 2006;11(4):533–551. [PubMed: 16769734]

Strahan RJ, LaFrance A, Wilson AE, Spencer SJ, Zanna MP. Victoria's dirty secret: How sociocultural norms influence adolescent girls and women. Personality and Social Psychology Bulletin 2008;34 (2):288–301. [PubMed: 18212336]

Thomas, EC. Ring of silence: A paradox of womanhood. Doctoral dissertation. University of Colorado; Boulder: 2003. UMI AAT3086281

Thomas EC. African American women's breast memories, cancer beliefs, and screening behaviors. Cancer Nursing 2004;27(4):295–302. [PubMed: 15292725]

Thomas, E. Ring of Silence: African American women's experiences related to their breasts and breast cancer screening; The Qualitative Report. 2006. p. 350-373.http:www.nova.edu/ssss/QR11-2/Thomas.pdf

U. S. Census Bureau. Population and Housing Profile: Albuquerque city, Bernalillo County pt.; New Mexico: 2002. American Community Survey Office. Retrieved February 4, 2004, from http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/NM.htm

Healthy People 2010: National Health Promotion and Disease Prevention Objectives (DHHS Publication). Washington, DC: U.S. Government Printing Office; 2000. U. S. Department of Health and Human Services.

Vander Wal JS, Thelen MH. Predictors of body image dissatisfaction in elementary age school girls. Eating Behaviors 2000;1(2):105–122. [PubMed: 15001054]

Watlington TA, Byers T, Mouchawar J, Sauaia A, Ellis J. Does having insurance affect differences in clinical presentation between Hispanic and non-Hispanic White women with breast cancer? Cancer 2007;109(10):2093–2099. [PubMed: 17420982]

Wilmoth MC. The aftermath of breast cancer: An altered sexual self. Cancer Nursing 2001;24(4):278–286. [PubMed: 11502036]

World Health Organization. Screening for breast cancer. 2005. Retrieved June 30, 2009 from http://www.who.int/cancer/detection/breastcancer/en/

Table 1

Participant quotes and corresponding category by race/ethnicity

Category	Participant Quotes	Race/Ethnicity
Adolescent Teasing	I used to get teased by some boys and called flat chest. This teasing never completely faded from my memories. I think it has always somehow had an impact on my perception as a woman.	White
	Because of all that early teasing by boys, girls, my mother and aunts, to this day, I think of my breasts as a nuisance.	African American
	Despite the nuns attempt to keep us focused, the whispers among the boys…told me they all knew. “Look whose got tits!” or “Wow, never knew she had such knockers.” That's when I began carrying my books clutched to my chest and continued to do so all through high school.	Hispanic
	The boys were in the practice of snapping bras. I didn't have a bra to snap, it was embarrassing, I felt I didn't fit in but I didn't get teased by my peers not like my friend. Poor J. who was called “Peneplain” (it was an earth science reference … an area of flat, nearly featureless land).	Native American
Family Norms & Values	When I was an adult, I found out my aunt had a radical mastectomy, no one discussed at the time…but as all conversations regarding more intimate parts of our bodies, my mom cut to the chase and didn't elaborate at all.	White
	My upbringing was very reserved. We did not talk about personal things like body parts and breasts. I didn't know what to expect during puberty.	African American
	When I started to develop, my mother told me to be careful not to get hit in the chest that it would really hurt and cause cancer.	Hispanic
	My puberty celebration was at 13 years of age, with a lot of support from my family and cheering my way through womanhood was a great excitement. The puberty ceremony is a Blessing Way, all night chant for good blessing.	Native American
Media & Societal Influence	I think for many years the media (television, magazines, and movies) have also impacted the way I feel about my breasts. About seven years ago … I considered having breast implants. Why in God's name would anyone want implants? It has to be the need for obtaining the perfect body as seen on TV.	White
	We attach so much meaning to them [breasts]. I find myself thinking of how breasts seem to have a status and maybe personality, separate from the rest of the body.	African American
	When my first love was breaking up with me, he told me in part it was due to the fact that I “didn't have any tits!”	Hispanic
	It saddens me that this is a society so obsessed with material and physical attributes.	Native American
Breasts & Body Image	I was kind of small, so it was a challenge to keep my breast stuffed and hidden from the other girls. Surprise, surprise, I wasn't normal. I was skinny and breasts rule.	White
	I am just not happy about my body image; I wish I didn't have breasts.	African American
	I tend to wear large clothes. I'm working on being as non-sexual as possible and not bring attention to my breasts. I hated my body … I know I would have been tempted to get implants put in but I could never afford it!	Hispanic
	After writing these stories about breast issues, I realize how symbolic the breasts can be to a woman.	Native American
Mammography Screening Experiences	I was embarrassed and felt ashamed when I exposed my breast. I have never returned for	White

Category	Participant Quotes	Race/Ethnicity
	a mammogram since. Any diagnostic test is scary. You are going for this test to rule out something horrible, something no one wants.	
	I had the mammogram; it was one of the most painful experiences that I have had to go through.	African American
	… getting a mammogram isn't a very dignified process. Having another person touch your breasts is typically performed in much more intimate circumstances.	Hispanic
	I was afraid to have the mammogram because of stories I had heard.	Native American