

Working Class African American Women and Heart Disease: How Communication and Community Impact Prevention Knowledge and Behaviors

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ABSTRACT

Heart disease is the number one killer of women in America. Obesity, diabetes, high cholesterol, and high blood pressure are all contributing, or resulting, illnesses of heart disease. African American women are disproportionately affected by heart disease and its accompanying illnesses, and this is especially the case for African American women in the South. This study evaluates the impact that communication and community have on the prevention knowledge and behaviors of sixteen African American women in North Carolina. The women were from working class and middle class backgrounds. Overall, there was a knowledge gap between the health practices and behaviors of working class and middle class participants. Working class participants also were more likely to be overweight than the middle class participants. Participants attributed their eating and exercise practices to various interpersonal and environmental factors, including access to grocery stores and a workout partner.

H eart disease is the number one killer of women and men in the United States (Centers for Disease Control and Prevention, 2011). The Centers for Disease Control and Prevention (CDC) projects that “about every 25 seconds, an American will have a coronary event.” Heart disease also can result in debilitating illnesses. In 2006, an estimated 81 million people had at least one form of cardiovascular disease—the most common forms being high blood pressure, coronary heart disease (CHD), stroke, and heart failure (American Heart Association, 2011). In the same year, approximately 73 million Americans were

living with high blood pressure, 17 million were living with coronary heart disease, eight million had a heart attack, six million experienced a stroke, and 5.8 million were in heart failure (AHA, 2011). Reducing one’s controllable risk factors “could prevent or postpone substantially more deaths from CHD” (Capewell et al., 2010, p. 120).

Heart disease, which researchers may refer to as coronary artery disease (CAD), CHD, or cardiovascular disease (CVD), can be avoided or “reduced by taking steps to prevent and control factors that put people at greater risk” (CDC, 2011). Risk factors that correlate with heart disease include

"high cholesterol, high blood pressure, obesity, diabetes, tobacco use, unhealthy diet, physical inactivity, and secondhand smoke" (AHA, 2011). All of these risk factors are controllable through reducing alcohol and tobacco intake, increasing physical activity, consuming healthy foods, controlling one's weight, and being aware of one's heart health (AHA, 2007). Risk factors that contribute to heart disease that are less controllable at the individual level are age, sex, income, and hereditary factors (AHA, 2007). As people age, their risk for heart disease increases. Heredity, or genetics, is also a major factor in heart disease risk. In terms of ethnicity, "African Americans are more likely than Caucasians to have high blood pressure, and they tend to have strokes earlier in life and with more severe results" (AHA, 2007).

Gender also plays a major role in the development of heart disease. Researchers have found that "coronary artery disease (CAD) kills more women than all cancers combined and is the leading killer of women in the United States." There are a large number of women living with heart disease. An estimated "one in three women in the United States suffers from CAD" (Shirato & Swan, 2010, p. 282). Women are also disproportionately affected by heart disease's accompanying illnesses. For example, Shirato and Swan reported that "more women than men with CAD have diabetes, hypertension, hypercholesterolemia, and a family history of CAD" (p. 282). Theorists projected that these trends in obesity, diabetes, and high blood pressure among American women caused 30,000 additional deaths from heart disease in 2010 (Capewell et al., 2010). Though heart disease greatly affects women, it is seen as a man's disease. In a health study assessing doctor-patient communication, researchers found that "lack of healthcare provider knowledge of the guidelines for prevention of CVD in women has been identified as

a barrier to reducing morbidity and mortality in this population." The researchers also stated that "women receive less cholesterol screening, less lipid-lowering therapies, less use of heparin, beta-blockers and aspirin during myocardial infarction (MI), and fewer referrals to cardiac rehabilitation compared with men" (Pleglar et al., 2009, p. 1542).

African American women, in particular, are greatly impacted by heart disease. For African American women, the "death rates from heart disease and cerebrovascular disease exceed those of all American women—Caucasian, Latino, Native American, and Asian and Pacific Islander" (Fleury & Lee, 2006, p. 130). For this population "heart disease and stroke remain the first and third leading causes of death" (Lutfiyya et al., 2008, p. 86). Several factors might account for the increased risk of heart disease and stroke among African American women. In terms of weight, "African American women and girls are more overweight and obese than those of other ethnic groups" (Taylor et al., 2009, p. 53). Among African American women, 50.8% are obese, and 78% are overweight (Taylor et al., 2009, p. 54). Along with weight management, physical activity is a controllable risk factor to help prevent heart disease in women. Adversely, not being physically active is "a major independent risk factor for CHD in women" (Lefler & Nuss, 2006, p. 350). African American women are less physically active than other population groups. The level of physical activity correlates with heart health for African American women: "African American women have lower levels of physical activity and higher levels of cardiovascular health risk compared to other population groups" (Fleury & Lee, 2006, p. 135).

Education level and socio-economic status have been identified as factors influencing physical activity among African American women. For example, Fleury

and Lee found that African American women “with low levels of education tended to be more physically inactive” (p.132). Socio-economic status also correlates with levels of physical activity. Income level has “a significant impact on the initiation and maintenance of health promoting behaviors, including participation in regular physical activity” (p.131). In addition, socioeconomic influence food options and choices. Demographically, the population group that is “least likely to meet the USDA guidelines for the recommended daily servings of fruits and vegetables is non-Hispanic Blacks and individuals with lower incomes” (Robinson, 2008, p. 395). Overall, socioeconomic status is a powerful indicator of health practice. African Americans have the highest rates of poverty in the United States of any ethnic group. In 2009, the Census Bureau reported that 25.8% of African Americans were below the poverty line (Census Bureau, 2009).

Although there are many studies on how uncontrollable risk factors impact heart health, there is little research on how social (and potentially controllable) factors influence heart health knowledge and behaviors. Existing research places an emphasis on community support. Community expectations about physical health “may enhance efficiency in goal formation and motivation related to physical activity” (Fleury & Lee, 2006). Scholars have argued, “Social factors play a dominant role in influencing individual and community goals, strategies, and opportunities for behavioral change” (Fleury & Lee, 2006). A community message about health must be set in place to enact positive change at the community level. Community communication must “include culturally relevant social support as well as social norms that may facilitate behavioral capacity and health behavior change” (Fleury & Lee, 2006). Given the above findings it is important to do more research on how messages between family,

friends, and support networks can contribute (and, in some cases, undermine) heart health among African American women.

As such, this study focuses on the influence of communication and community on African American women’s knowledge and awareness of heart disease risk factors. Researchers have determined that “awareness and acceptance are necessary first steps in controlling and managing CVD risk factors” (Khavjou, 2009, p. 673). Thus, I aimed to assess African American women’s awareness and acceptance of heart disease risk. Specifically, I sought information about diet, physical activity, heart health knowledge, communication patterns, and community-level influences to address the following research question: What factors influence health heart knowledge and health behaviors among African American women in the South?

METHODS

Procedure

This study received approval from the North Carolina State University Institutional Review Board. This study involved semi-structured interviews with sixteen African American women living in the Southeastern United States. Recruitment entailed the use of convenience and snowball sampling. To recruit participants, I posted study announcements on community websites, social networking sites, and online listservs that catered to persons of color and women, and I distributed fliers at area colleges and centers for persons of color. As an incentive, I offered individuals free entrance into a raffle for a \$50 Amazon gift card for their participation. When a person responded to the study announcement, I assessed his/her eligibility. To be able to participate, the individual needed to meet the following criteria: (a) be at least 18 years of age, (b) read and write English, and (c) self identify as an African American

woman. After an individual was deemed eligible to participate in the research study, I scheduled an interview at a time and place convenient for the research participant.

I began the interview by reading the informed consent form to the participant, and both she and I signed a copy. After giving the participant a copy of the informed consent form, we transitioned into the formal interviewing process. These one-on-one, semi-structured interviews ranged in length from 15 minutes to one hour. The interview schedule consisted of five parts. The interview sought to gain information about each participant's: (a) environment, (b) knowledge of heart disease and its accompanying illnesses, (c) diet and eating habits, (d) health practices, and (e) communicative practices with regard to diet and exercise. The interview consisted mostly of open-ended questions designed to gain greater insight into the participant's lifestyle, field of experience, and attitudes toward health. All participants consented to having their interviews audio-recorded. After the interview, participants completed a two-page questionnaire that assessed demographic information, health information, and health knowledge about diseases currently affecting African Americans. The interview process ended with me thanking the participants for participation in this research study. I also informed participants that they would be notified if they won the raffle for the \$50 Amazon gift card.

I reviewed the interviews for transcription after the data collection process and transcribed sections of the interviews based upon their pertinence to the research study. The annotated notes I took during each interview allowed for better analysis of the audio-recorded interviews. I placed the information from the questionnaire into a spreadsheet. Once this was done, I was able to compare and contrast the data based on education level, age, and income level.

Participant Characteristics

The sample consisted of 16 women. All research participants self-identified as African American women. Participants' ages ranged from 20 to 60 years of age. The mean age of the participants was 28. Socioeconomic status was placed on a Likert-type scale from one to seven with the average number reported being 3.6, making the average participant working class. All participants had some post high school education. All participants reported having a family history of heart disease, diabetes, high blood pressure, or obesity.

RESULTS

As expected based on the literature, this study indicated that income and class are important factors shaping participants' weight, diet, and levels of exercise. Income also strongly influenced participants' knowledge about heart disease. Within this research population, there was a knowledge gap between working class and middle class participants. Less than half of the participants were able to correctly identify all of the diseases related to heart disease for which they were at increased risk. Those who were able to identify these diseases had a median familial socioeconomic status of 4.4, compared to the median group status of 3.5. This finding suggests that African American women of higher socioeconomic status might be better educated about the diseases that place them at risk for heart disease and, thus, better equipped to prevent heart disease and its associated illnesses.

Although the majority of participants talked with others within their community about food, most did not discuss exercise, and over half did not exercise regularly. Four participants had open dialogue about their exercise routine; whereas, 14 participants had open dialogue about their diet. Only seven of the 16 research participants engaged in a weekly exercise routine,

with six of the seven participants exercising alone. Physical inactivity is a risk factor for heart disease. My findings suggest that beginning community conversations about physical activity may “create channels through which information related to activity may be disseminated” (Fleury & Lee, 2006, p.133). Creating an exercise support system or network among African American women may also prove to have sustainable impact on the physical activity levels of African American women, as many of those who reported not exercising cited lack of exercise partners as a reason.

Obesity and Heart Disease Risk Awareness

Obesity is a major risk factor for heart disease. Based on the participants’ self-reported height and weight, body mass index values were calculated. According to the body mass index calculations, nine of the 16 participants were overweight, with seven classified as obese based on their self-reported height and weight. Although seven participants would officially meet the criteria for obesity, only three self-identified as obese. The average socioeconomic class ranking of the overweight participants was 2.5, which signifies working class, but is lower than the overall average income of the participants. I also asked the participants for their mothers’ height and weight as researchers have found a similarity between mother and daughter weight and health habits (Francis & Birch, 2005). Twelve of the 16 participants’ mothers could be classified as overweight, with six meeting the criteria for obesity. One participant’s mother was deceased.

The women also provided me with their mothers’ socioeconomic background characteristics. Of the nine overweight participants’ mothers, the average socio-economic class ranking was 3.5, which also signifies working class. As stated earlier, most participants did not identify as obese, regardless of their weight. This pattern also held

true for the participants’ reports of their mothers’ weight. Six of the participants’ mothers would be considered obese, but only two participants identified their mothers as obese.

I asked participants to complete a Heart Health Quiz I made as part of the post-interview questionnaire. The questions were based on facts given by the American Heart Association. The quiz assessed each participant’s knowledge of heart disease risk factors for ethnic groups. The participants were asked what disease was the number one killer of women and which ethnic group had the highest instances of heart disease, obesity, diabetes, heart attack, and stroke. Only seven of the 16 participants were able to answer all of the questions correctly. The average socioeconomic status for these seven participants was 4.4, which indicates lower middle class. Thus the working class women in my study were more likely to be overweight and less likely to be knowledgeable about heart disease compared to those whose income range was closer to middle class.

Exercise Practices

I also asked the participants about their levels of physical activity. Seven of the 16 participants participated in regular exercise routines, such as going to the gym for 45 minutes, five-six times a week or walking two miles, three times a week. These seven participants, who came from varied socioeconomic backgrounds, exercised on average four days a week. Six of the seven participants who participated in an exercise routine exercised alone, but four of these participants shared that they discussed their exercise routine with their mother, family members, and/or friends. The majority of the participants who did not participate in an exercise routine cited time constraints and not having a workout partner as reasons for not exercising.

All participants reported feeling that exercise was part of a healthy lifestyle and

that they should exercise. Participants reported exercising to “burn calories,” “exercise your heart,” “be healthy,” “relieve stress,” “be more upbeat,” “prevent diseases,” “strengthen heart,” and to “preserve muscles.” Although all participants reported that they felt exercise was part of a healthy lifestyle, less than half reported participating in a regular exercise routine.

Eating Habits

In addition to asking the participants about their physical activity levels, I asked them about their eating habits and whether they had discussed those habits with others. Fourteen of the 16 participants discussed their diet and eating habits with their mother, family, and/or friends. Nine of the 16 participants described their diets as healthy; however, about half also described eating fast food regularly and skipping breakfast. Two participants who described their diets as healthy ate very restricted items, such as a box of cereal throughout the day or a can of spinach for a meal, suggesting that healthy eating for these participants was equated with deprivation. As a part of the interview, I asked the participants to take me through what they ate in a normal day. Below I will share what two participants described eating in a normal day; participant names are pseudonyms.

Rosanna and Katie are both college students. Rosanna and Katie both describe their diets as unhealthy and do not participate in a regular exercise routine. Rosanna is working class, and Katie is middle class. Although Rosanna and Katie are both from different social classes their eating and exercise habits are similar. Katie is middle class, but she revealed that her mother grew up “extremely poor.” Researchers have found that “women perform the majority of food related work” (Allen & Sachs, 2007, p. 1), thus Katie may have learned much about food from her mother. As previously stated, low-income levels negatively affect children’s dietary and nutritional

intake. Katie’s diet and health practices might indicate that messages about health are transmitted inter-generationally and might have a more powerful influence than income level.

Rosanna reported learning about healthy eating as a child. Rosanna’s mom also provided home-cooked meals. A vegetable dish within Rosanna’s household consisted of “collard greens with a bone, or piece of meat. And sometimes corn with bacon.” Rosanna and her mother are considered obese. Rosanna described her diet as “horrible.” Rosanna does not talk about her diet with anyone except her mother. When asked what those conversations centered around, Rosanna responded, “Just weight.” Rosanna said that her mother tells her she’s “getting fat.” Here is what Rosanna eats in a normal day:

Breakfast

Water or Sprite

Lunch

Hard Beef Taco and a Chicken Quesadilla from Taco Bell

Sprite

Dinner

An eight-inch club on white w/ ham, turkey, bacon, provolone cheese, and mayonnaise

Water or a Watermelon Arizona Tea

Snack

A chocolate chip cookie two-three times a week

Katie reported learning about healthy eating in a high school health class. Due to Katie’s parents’ busy schedules, eating out was “quick and easy.” Katie described her diet as unhealthy. She cited her busy schedule as a contributing factor to her unhealthy diet. She reported eating out at least two-three times a week. As previously stated, Katie reported eating out frequently as a child, due to her parent’s busy schedule. Katie and her mother are considered obese. Katie does not participate in a regular exercise routine. Here is what Katie eats

on a normal day:

Breakfast

Egg and cheese sandwich, or egg and cheese English muffin

Water

Lunch

Four-piece chicken finger meal

Fries Soda

Dinner

*Dinner meal is dependent on time available to cook meal. If there is not time:

Wendy's spicy chicken sandwich – no lettuce

Baked potato with butter and sour cream

Medium Sweet Tea

*If there is time to prepare a meal:

Italian grilled chicken

Baked potatoes

Velveeta shells and cheese

Water

Environmental Influences

Community attitudes about exercise contribute to social norms regarding physical activity for a population of people. Seeing one's community members participating in regular exercise might have an impact on the exercise practices of individuals within that community. As such, I asked the participants about possible environmental influences, such as whether people within their communities walk for exercise and/or whether their neighborhoods have playgrounds to help promote activity among children. Almost all of the participants reported having a playground, or an area that children could play in, while they were growing up. Thirteen of the 16 participants reported that people walked in their neighborhoods. However, three of the 13 participants revealed that people walk, not for exercise, but for functionality or transportation. One participant, who reported that people did not walk for exercise in her neighborhood, also reported her neighborhood not having sidewalks. All of the participants described their neighborhoods as safe.

Laura's Story

Laura's experience is an excellent illustration of the general trends identified in the data. Laura is a middle-aged woman who said she grew up with access to healthy foods but not healthy behaviors. Laura is working class and grew up working class. Her family comes from the South. Laura is considered obese. Within the African American community, Laura said food can be a "comfort" to ease "depression" and "stress." Laura also revealed her perception that within the African American family there is an emotional attachment to food. Laura reported learning about healthy eating later in life, although not until she reached her late 50s.

Interviewer: Tell me what you know about heart disease.

Laura: I know that I am very prone to it. I know that it is in my family. Well, in the African American community, it stems from a lack of knowledge. Um, eating, obesity, um, lifestyle, irregular visits to the doctor, you know just all the things that low socio-economic groups incorporate. So um, I believe that it is something that can be prevented in most cases. But, usually in my family, it has been a matter of fixing it, instead of preventing it, unfortunately.

Interviewer: And how do you think it can be prevented?

Laura: Early intervention is the key. I think it has, well I think it's actually very complicated because the questions you were asking earlier I thought were excellent questions. You know if there's not--well let me go back. First of all, earlier if African Americans had more education, we had the food to be healthy. We were farmers; we had organic foods that people are paying so much money for, but what we didn't do is prepare them well. You know I think of all the fresh vegetables I had access to growing up, but then when you put a ham hock in it with a fat back, you're killing it. And, we had all the fresh cured meats, but when

they were fried--you know nobody baked anything much. And then even if there was any baked fish or baked chicken you know it had gravy, and then you had mashed potatoes with butter. So you know all these things that could have been healthy had they'd been prepared differently, ended up being unhealthy because of the way we serve them and timing. You know you work all day, eat, then watch TV, and go to bed. All of that's unhealthy. So I think that the government, well, should be intentional, as to why there are 15 liquor stores in some communities, and no grocery stores. Or if the grocery stores are there, there's not fresh fruit and fresh vegetables. And if they are there, you have to think about--I know like now I work a whole lot, and I need more balance in my life. And, I fortunately have the resources that I can go buy a salad, or I can go to Whole Foods and get the vegan collards. But, if I still had children at home it would be very difficult because vegetables and fruit don't last you know, more than a few days. So that means you can go to the grocery store once a month and get all of these frozen packaged stuff that you can fix quickly or you can learn how to do it another way. And I think that for people who have to work a lot, and don't have balance in their lives with children, you have to be very intentional. And so when you're dealing with bills and budget, and homework, and all of that it's easier if you learned it early. Because that's what I see, it's what you teach your children and make accessible to them early.

I chose Laura's story because it highlighted how communication and community can influence diet and exercise practices. Laura did not learn about healthy eating until she had reached her late 50s. Laura reported having access to healthy food, such as fresh vegetables, when she was a child but said that, when the food was prepared incorrectly, it was no longer healthy. Because Laura focused solely on

food and never discussed other components of health, such as exercise, her story also suggested that there might be more salient messages about food than about exercise within the African American community.

DISCUSSION

Nearly 26 percent of African Americans are living below the poverty line (Census Bureau, 2009). The South has the highest rates of poverty in the United States (DeNavas-Walt et al., 2009) and heart disease is the number one killer of women in the South. Statistically, it is understandable why low-income African American women in the South are greatly affected by heart disease. But, what are the processes at work that exacerbate these women's chances for heart disease? Researchers suggest that knowing that one is at increased risk for heart disease can decrease the acquisition of heart disease and its related illness. By examining knowledge of heart disease risk factors and health education within the African American community, I have begun to investigate the factors that place African American women at risk for heart disease.

From participant reports, there is a gap between actual and perceived risk for heart disease. This theme can be seen in the case of obese participants. Of the participants considered obese, less than half knew they were obese. This held true for identifying others as obese, as well. Of the participants with obese mothers, less than half identified their mothers as obese. There was also a correlation between obese mothers and daughters despite current income level, which indicates the mother's importance in sharing positive health behaviors with her children. I also found that despite current income level, a mother who grew up poor passed down her initially learned ideals about food and exercise to her middle-class daughter.

Overall there was a knowledge gap

between working class and middle class participants. Middle class participants were able to identify all of the risk factors associated with African American women and heart disease on the Heart Health Quiz. Most of the participants reported speaking about food with others within their community, but less than half of the participants reported talking about exercise. Physical activity and weight management are major preventative factors for heart disease. Having conversations about healthy foods, physical activity, and heart disease in the African American community can prove beneficial to reducing this disease among this population. Educating mothers, as well as future mothers, may also prove beneficial given that “women bear the responsibility for nourishing others” (Allen & Sachs, 2007, p. 1).

There were limitations to this study. The sample size of this study did not allow for a great number of African American women to share their stories. A bigger sample would also allow for a greater diversity within the sample population. This research study was a convenience sample. Only participants in the recruitment area were able to see and

respond to the research advertisements. The majority of the advertisements were located on and near area university campuses. The placement of the fliers allowed for a greater number of individuals with post high school education to participate in the study, even though many still identified as working class. The percentages of African American women with post high school education in this study are not indicative of the entire population. Future research should attempt to solicit a larger and more diverse sample of African American women to fully understand the pathways by which being poor, being a woman, and being African American shape heart health behavior. Future research should also analyze the variations in communicative practices among varying linguistic groups within the African American community. As revealed through the research there was a heart disease knowledge and awareness gap between middle and working class African American women. This signifies that class, or income level, affects the kinds of conversations that African American women have about health.

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