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Addressing Colon Cancer Screening Disparities among Overweight and Obese Women

Sara M. Kennedy, BSBA

ABSTRACT

Colon cancer is the third most common cancer in women and 60% of deaths from colon cancer could be prevented if persons 50 and older were screened regularly. Whereas physician recommendation has been identified as critical to increasing colon cancer screening, this factor may be insufficient for increasing colon cancer screening adherence among overweight and obese women. Despite having more physician visits, this population tends to receive fewer preventative services. Women who delay routine cancer screening have the highest rates of dieting. An intervention utilizing the recommendation for screening from a weight loss advisor at an organization like may prove to be effective. This is an opportunity for health educators to direct weight loss organizations to implement new interventions aimed at increasing colon cancer screening. Cancer screening information disseminated through such organizations has focused almost solely on breast cancer. Daniel Goleman's model of leadership may prove to be a valuable guiding framework. An innovative, successful health education program could be created if leaders foster resonance by creating commitment to the overarching vision, achieving consensus through democratic leadership, and ensuring appropriate implementation and necessary motivation through pacesetting.

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Background

This paper provides an overview of the incidence and mortality rates of colon cancer as well as a summary of current colon cancer screening guidelines. Overweight and obesity are conditions that have been identified as risk factors for colon cancer. Additionally, overweight and obese women over the age of 50 have lower than average colon cancer screening rates. A possible explanation for this disparity is less effective communication between health care providers and overweight and obese women. Whereas physician recommendation has consistently been shown to be a strong predictor of colon cancer screening, this relationship may be weaker with regard to overweight and obese women. This represents a challenge for health educators as it suggests that standard interventions centered on physician or health care provider recommendation may not be as successful at increasing screening rates within this population. Interestingly, women who were most likely to delay routine cancer screening also had the highest rates of dieting. This suggests that working with weight loss focused organization like Weight Watchers or Jenny Craig's may provide a new, more effective channel for health educators to reach this target population. Daniel Goleman's model of leadership is proposed as an appropriate professional framework to address this health education problem. The model suggests that it will be critical for health education leaders to create resonance within weight loss organizations with a focus on the overarching vision of saving lives

by promoting colon cancer screening and creating an appropriate health education program through democratic, consensus building methods.

Significance of the Problem

Colorectal cancer is the third most common cancer in both men and women. In 2009, an estimated 146,970 Americans, including 71,380 women, were diagnosed with colon cancer (American Cancer Society, 2009). Colon cancer incidence rates declined from 1998 to 2005. This decline was more pronounced in men at 2.8% per year than in women at 2.2% per year. The decrease in colorectal cancer incidence and mortality is attributed to advances in treatment and early detection through screening. If diagnosed at a localized stage, the five year survival rate is 90%. Unfortunately, only 40% of colorectal cancers are diagnosed at this stage (American Cancer Society, 2008). Current colon cancer screening guidelines call for individuals at average risk to begin screening at the age of 50. Individuals at increased risk, typically people with a first degree relative diagnosed with colorectal cancer or a history of certain bowel disorders should begin screening earlier in life (American Cancer Society, 2008).

Compared to recommendations for breast and cervical cancer screenings, colorectal cancer screening recommendations are more complex because multiple tests with different frequencies, risks and benefits are approved. Though screening options could be considered an advantage, confusion

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surrounding the differences between the tests is sometimes considered a barrier to this type of screening (Costanza et al., 2005). One study found patients who discussed two or more options with their healthcare provider were 1.6 time more likely to be confused and patients who reported being confused about screening options were 1.8 times more likely to be nonadherent (Jones, Vernon & Woolf, 2010). Complexity of screening guidelines and generally low awareness of colon cancer screening tests emphasize the need for awareness efforts that not only increase understanding that screening is needed but also increase comprehension of the screening options available and their respective risks and benefits (Greisinger, Hawley, Bettencourt, Perz, & Vernon, 2006).

There are specific barriers to each of the recommended screening tests for different populations. Fecal occult blood tests (FOBT) sometimes require dietary restrictions and multiple stool samples. Common barriers include intending to take the test but never getting around to it, and perceiving the test to be too unpleasant and/or inconvenient (Worthley et al., 2006). Fecal immunochemical tests (FIT) do not require dietary restrictions and involve fewer samples and less contact with the samples. Additionally, tests can be mailed directly to laboratories reducing the time primary care practices must invest. Though procrastination, inconvenience and unpleasantness may remain barriers to FIT, evidence suggests these barriers are reduced when compared to traditional FOBT (Worthley et al., 2006; Centers for Disease Control and Prevention, 2010). Barriers to FIT and FOBT are similar among men and women (Friedemann-Sanchez, Griffin & Partin, 2007).

Barriers to endoscopic tests, flexible sigmoidoscopy (FS) and colonoscopy, include concerns related to the extensive bowel preparation and the invasiveness of the procedure (American Cancer Society, 2008). Evidence suggests the nature and strength of these barriers differ by gender. According to one study, women experienced significantly more embarrassment and fear about having an endoscopic screening procedure than men. Women who had been under the care of the same primary care physician for a longer period of time were more likely to undergo screening (Farraye et al., 2004). Women have also been found to view bowel preparation as a more significant barrier than men. A qualitative study found women were significantly more likely than men to feel embarrassment and anxiety about being exposed during the procedure. Additionally whereas men tended to feel "too much information is not always good", women tended to express a preference for having more detailed information prior to the procedure (Friedemann-Sanchez, 2007).

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The literature consistently suggests that physician recommendation is one of the strongest and most consistent predictors of colorectal cancer screening (American Cancer Society, 2009; Banerjee, 2008; Codori, 2001; Costanza et al., 2005; Coughlin, 2005; Drury, 2002; Ferrante, Chen, Crabtree, & Wartenberg, 2007; Greisinger et al., 2006; Hay, 2003; Heo et al., 2004). Among women over 50 who had seen a physician in the past year but who had not been screened for colon cancer, 94.6% reported that their doctor had not recommended the test (Coughlin, 2005). Hay et al. (2003) surveyed women 50 and older who were adherent to breast cancer screening guidelines and found that only 50% were adherent to colorectal cancer screening guidelines and advised that increasing physician recommendation could play a critical role in interventions aimed at increasing colorectal cancer screening (Hay, 2003).

Evidence suggests that about one-third of the 562,340 cancer deaths expected to occur in 2009 will be related to overweight or obesity, physical inactivity, and poor nutrition. Studies indicate that compared to healthy-weight individuals, men and women who are overweight are more likely to develop and die from colon cancer (American Cancer Society, 2009). According to BRFSS data, 70.5% of men and 55.3% women are overweight or obese. Historically, colon cancer screening in women lagged behind screening in men. In the late 1990s, physicians were more likely to refer white male patients for flexible sigmoidoscopy or colonoscopy and many women continue to think of colon cancer as a men's disease (Codori, 2001; Friedemann-Sanchez, 2007). However, 2008 BRFSS data suggest this gap has closed as equal proportions of men and women over 50 reported ever having a sigmoidoscopy or colonoscopy (Centers for Disease Control and Prevention, 2008). There are significant disparities related to race with regard to colon cancer. Though incidence rates have slowly decreased among African Americans from 1989 to 2005, rates remain higher than those among whites (American Cancer Society, 2009).

Evidence suggests that overweight or obese white women are significantly more likely to delay preventative care as a result of weight (Amy, 2005). This relationship does not hold for men and is not consistently observed in African American women. While African American women are more likely to be overweight or obese, they are less likely to cite their weight as a reason to delay care (Frank, 2004; Ostbye, Taylor, Yancy, & Krause, 2005). Unlike overweight or obese white women, overweight or obese men, regardless of race, are more likely than healthy weight men to undergo colorectal cancer screening (Centers for Disease Control and Prevention, 2008).

Factors Related to, or Affecting the Problem

The relationship between increased BMI and delay of care among white women has been well documented with regard to cancer screening. Fontaine and co-authors (2001) found that there may be an important relationship between cancer screening behavior and weight among white women. Specifically, they found white women were more likely to delay mammograms and pap smears as a function of BMI (Fontaine, 2001). This finding echoed results from the 1994 NHI Survey in which overweight and obese women were less likely to be screened for cervical and breast cancer even after adjusting for known barriers to care (Wee, 2000). This relationship was confirmed with data from the 1998 NHI Survey which suggested that white women with higher BMI were less likely to receive regular mammograms. Though obese women were more likely to have low socioeconomic status and higher illness burdens, the relationship between BMI and lower screening rates was not explained by differences in socio-demographic factors, health care access, illness burden, or health habits (Wee, 2004). Another study confirmed obese women were less likely to undergo flexible sigmoidoscopy and found this relationship to be consistent with previous findings regarding breast and cervical cancer screening (Heo, Allison, & Fontaine, 2004). An analysis of two large national surveys found an association between receipt of fewer preventative services and higher BMI among middle aged and elderly white women despite more physician visits (Ostbye et al., 2005). In another study, rates of screening among women with a BMI greater than 35 were significantly lower and this difference was entirely attributable to differences in BMI. The authors hypothesized that this disparity may come from patient factors, physician factors, and their interactions (Rosen, 2004).

Similarly, Amy et al. (2005) found obese women reported that they delay cancer-screening tests and perceive that their weight is a barrier to obtaining appropriate health care. The percent of women reporting these statements increased significantly as the women's BMI increased. When asked: "Have you ever delayed seeking health care or cancer-screening tests because of your weight?" 41% responded affirmatively; the percentage of women reporting that they delayed seeking health care increased significantly as BMI increased. When asked: "Has your weight been a barrier to getting appropriate health care?" 52% responded affirmatively. Among women with BMI over 55, 68% reported that they delayed seeking health care because of their weight, and 83% reported that their weight was a barrier to getting appropriate health care. This study's participants identified a number of specific barriers

including disrespectful treatment, embarrassment at being weighed, negative attitudes of providers, unsolicited advice to lose weight, and medical equipment that was too small to be functional (Amy, 2005). Other studies have identified weight related reasons for delaying or avoiding health care that include: having gained weight since last health care visit, not wanting to get weighed on the provider's scale, and knowing they would be told to lose weight (Drury, 2002).

BRFSS data illustrates this disparity clearly. Of the women 50 and over who reported ever having a sigmoidoscopy or colonoscopy, 42% had a BMI of 25 or less, 34% had a BMI between 25 and 30, and 25% had a BMI greater than 30. A similar distribution was seen with the responses to the question: have you ever had a home blood stool test? Of the women who answered affirmatively, 41% had a BMI of 25 or less, 33% had a BMI between 25 and 30, and 26% had a BMI greater than 30. Therefore, women who were overweight or obese were less likely to report colorectal cancer screening (Centers for Disease Control and Prevention, 2008).

Implications for Leadership

A critical component of many existing interventions aimed at increasing colorectal cancer screening is increasing physician recommendation. Interventions aimed at increasing colorectal cancer screening solely through increasing physician referral may be insufficient to reach many overweight and obese women. While overweight and obese women are likely to have more physician visits, they are also likely to receive fewer preventative services. Several explanations for this outcome have been explored. It does not appear that physicians are less likely to refer overweight and obese patients for colorectal cancer screening (Ferrante et al., 2007). Individuals who felt they are treated with disrespect by their health care provider are more likely to report not following their provider's advice and putting off needed care (Blanchard, 2004). Overweight and obese women are more likely to report disrespectful treatment from their health care providers (Rosen, 2004). Studies of physician's and other clinician's perceptions of the obese corroborate the existence of disrespectful treatment. In one study, physicians were mailed anonymous questionnaires and asked to specify five diagnostic categories and social characteristics of patients to which they responded negatively. Obesity was the fourth most commonly listed behind drug addiction, alcoholism, and mental illness. Negative interactions with physicians may lead obese women to delay seeking healthcare (Puhl, 2001). Physician recommendation may be necessary but not sufficient for increasing colorectal cancer screening adherence in overweight and obese

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women (Hay, 2003). Concerns about being physically exposed during screening procedures documented among women in general by Friedemann-Sanchez, Griffin & Partin, likely pose an even more significant barrier for overweight and obese women that physicians may be ill-equipped to fully address.

Women are more likely to respond to non-judgmental, caring communicators who help build trust and rapport, and encourage follow-up care. Negative attitudes do not encourage "compliance" or follow-up; instead, they motivate patients to avoid contact with health professionals. Overweight and obese women are likely to be more responsive to a holistic approach with a focus on health and well-being. Emphasis needs to be placed on evaluating and optimizing lifestyle patterns such as stress reduction, exercise, and healthful eating habits (Drury, 2002). Therefore, an intervention utilizing change agents who will more naturally use such an approach to deliver messages relating to colon cancer screening are likely to be more effective than promoting directives from physicians.

In studies where a relationship between BMI and delay of care was observed, an additional and significant finding was that women who reported that they delay care were substantially more likely to have dieted five or more times. In fact, women who delayed routine cancer screening had the highest rates of dieting (Amy, 2005; Wee, 2004). Many authors attempting to explain why there is relationship between BMI and cancer screening among white women but not black women have hypothesized that white women are more likely to be unhappy with their bodies and face more pressure to be thin (Fontaine, 2001; Heo et al., 2004). This suggests that women who are likely to avoid colon cancer screening as a function of weight related barriers are also likely to utilize weight loss oriented services. Common suppliers of such services are well known companies such as Weight Watchers, Jenny Craig's, Shapes and Curves as well as smaller female oriented gyms and weight loss clinics. At most of these sites, women receive one-on-one or small group advice from weight loss advisors regarding diet, exercise, and general health issues such as tobacco cessation. Weight loss advisors in these settings are already accustomed to utilizing behavior change strategies, providing general health advice, and helping women address barriers associated with weight and body image. This preexisting skill set makes this group appropriate for delivering interventions aimed at increasing colon cancer screening rates among overweight and obese women.

Whereas many organizations like Weight Watchers have breast cancer awareness information readily available through their websites, information

on colon cancer appears to be almost completely absent. Though this appears to be an area such organizations have not focused on in the past, increasing colon cancer screening among clients of weight loss organizations is an opportunity for leaders in the health education field and could prove an effective way of increasing screening among overweight and obese women.

A leader within a weight loss organization could pioneer an initiative to disseminate colon cancer screening information to clients or a health educator affiliated with another organization may seek a partnership with a weight loss organization to reach this specific target population. Either an internal or an external leader could look to Daniel Goleman's model of leadership for guidance. Goleman's model focuses on building resonance and describes six styles of leadership: visionary, democratic, coaching, pacesetter, affiliative and commanding. Leaders employing a commanding style demand compliance without articulating reasons; this leadership style is not relevant in this situation. Visionary leaders move groups toward shared aspirations and rely upon use of empathy to rally individuals toward a shared dream or vision. Utilizing a visionary style of leadership could inspire both leaders within the weight loss organization and weight loss advisors implementing the program to believe their efforts to increase screening will save lives and therefore increase commitment. If such an initiative came about as the result of a partnership between two organizations taking a democratic approach to leadership would be critical to achieving consensus between the two organizations and to ensure that both organizations interests are being met. Also, it would be critical to get input from leaders at both organizations to take advantage of their specific expertise to create the best possible program. Strong leadership will be needed to ensure the program is implemented effectively by weight loss advisors, who have direct contact with the target population. Using a democratic leadership style will enrich the program through weight loss advisor input and secure buy in from this group.

Weight loss advisors also act as leaders to the clients of their organization and rely upon coaching and affiliative styles of leadership. The coaching style of leadership focuses on personal development, listening and encouragement. Affiliative leadership values emotions and feelings, an important part of many women's weight loss journeys. Weight loss advisors are already trained to help their clients identify their own strengths and weaknesses, encourage positive behaviors, boost morale and show empathy, which reflects both of these leadership styles. Achieving resonance by creating a strong sense that the weight loss advisors efforts contribute greatly to the overarching vision of

increasing the rate of life saving colon cancer screening among their clients would be critical. Pacesettering could be an appropriate leadership strategy for broad implementation of such an initiative. The pacesettering style of leadership focuses on high quality and achieving results. This leadership style is also prone to reducing collaboration and can have negative results if used as the primary leadership style. None the less, creating numbers driven goals to motivate weight loss advisors in the implementation of such a program may be helpful. For example, the weight loss advisor who spoke with the most participants about colon cancer screening or who had the largest number of clients commit to be screened may receive a prize or public recognition.

Evidence suggests that overweight and obese women are not appropriately served by traditional interventions to increase colon cancer screening rates. An innovative approach relying upon the expertise of weight loss advisors may prove to be an effective way to reach this population. Leaders in health education or weight loss organizations can look to Goleman's leadership model for guidance in creating such an initiative. In order to create an innovative successful health education program it would be necessary for leaders to foster resonance by creating commitment to an overarching vision, achieving consensus through democratic leadership, and ensuring appropriate implementation and necessary motivation through pacesettering.

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