



Original article

Why Do Older Adult Women Fall Short of the Recommended Follow-up Care for Coronary Artery Disease?

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A B S T R A C T

Background: Many women with coronary artery disease (CAD), commonly referred to as coronary heart disease, do not receive an annual office visit to manage their disease. We set out to determine what barriers factor into women not receiving an office visit to manage their disease.

Methods: A purposive sample of 26 eligible women (≥ 65 years of age) diagnosed with CAD completed in-depth, qualitative interviews. Systematic analysis of the content of interviews was performed on transcripts from these interviews. Participants with an AARP Medicare Supplement Insurance Plan insured by UnitedHealthcare insurance company that did not receive an annual office visit were eligible. In addition, we surveyed 100 physicians to obtain their thoughts about why women may not schedule at least one annual visit to manage their CAD.

Results: The most common barriers identified were skepticism of heart problems, having to take the initiative to schedule the appointment, and dealing with seemingly more pressing health problems. Many of these barriers identified were substantiated in a survey of physicians that treat women with CAD, but the relative rankings of the importance of these problems differed somewhat.

Conclusions: Many women were skeptical about their heart health and often lacked the initiative to schedule a follow-up appointment. Most agreed that they would make an appointment if contacted by their doctor's office. Many of these women were receptive to the idea of receiving educational information by mail. Active involvement by doctors' offices to schedule appointments may help improve care, as might mail-based reminders.

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Introduction

Globally, an estimated 17.3 million people died from cardiovascular diseases in 2008, representing 30% of all deaths worldwide and occurred about equally among men and women

(World Health Organization, 2011). In the United States, cardiovascular disease accounted for 813,804 deaths in 2007, with more deaths occurring in women than men (Roger et al., 2011). About half of these deaths are from coronary artery disease (CAD), commonly referred to as coronary heart disease. This amounted to about one out of every six deaths in the United States in that year (Roger et al., 2011).

Evidence-based medicine (EBM) guidelines for the prevention and screening of CAD are well established (Davidson et al., 2012; Mosca et al., 2011; Smith et al., 2011). Based on these

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guidelines, men and women with stable CAD should have their blood pressure and lipid profiles assessed at least annually (and preferably at each clinic visit), in combination with their usual follow-up care. These visits generally occur in the context of regular office visits with a primary care physician or cardiologist, which is why we chose a combination of both types of physicians for our survey (Nelson, Woodwell, & National Center for Health Statistics, 1998).

Despite clear guidelines and advances in screening, monitoring, and treatment, several studies have documented gender disparities in the treatment of cardiovascular disease. In particular, disparities involving the use of surgical options, such as invasive coronary procedures, where data are more readily available, are well-documented (Blomkalns et al., 2005; Callier, Brown, Parsons, Ardoin, & Cruise, 2004; Chou et al., 2007; Eastwood & Doering, 2005; Giles, Anda, Casper, Escobedo, & Taylor, 1995; Halm, Penque, Doll, & Beahrs, 1999; Krumholz, Douglas, Lauer, & Pasternak, 1992; Rathore, Wang, Radford, Ordín, & Krumholz, 2002; Tobin et al., 1987; Weisz, Gusmano, & Rodwin, 2004). In addition to surgical options, disparities in nonsurgical options exist (Eastwood & Doering, 2005; Evenson, Rosamond, & Luepker, 1998; Halm et al., 1999; Lieberman, Meana, & Stewart, 1998; Marzolini, Brooks, & Oh, 2008; Moore & Kramer, 1996). Nonsurgical options, such as cardiac rehabilitation secondary prevention programs, assist in the recovery from coronary events including myocardial infarction or after some surgical treatments and generally consist of nurse-led education and exercise classes. Reasons for underutilization of these and other services are multifaceted, including health status, differences in physician referral and endorsements, and clinical and psychosocial factors.

Gender disparities in the diagnosis and treatment of women with CAD can be explained by biological as well as non-medical differences between the genders (Barnhart, Cohen, Wright, & Wylie-Rosett, 2006; Lewis et al., 2009; Majstorov et al., 2005; Sbarouni, Georgiadou, & Voudris, 2011; Sheifer, Escarce, & Schulman, 2000; Szerlip & Grines, 2009). Women with CAD, perhaps more so than other diseases, present differently than men, sometimes resulting in different diagnoses, treatment, and outcomes (for a review, see Araujo, de Matos Soeiro, Fernandes, Pesaro, & Serrano, 2006; Chambers, Bagai, & Ivascu, 2007; Shirato & Swan, 2010). Regardless of the etiology, these differences can lead to poorer quality of life outcomes in women (Broddadottir, Jensen, Norris, & Graham, 2009; Norris et al., 2004; Norris & King, 2009; Norris et al., 2008; Packa et al., 1989; Pettersen, Reikvam, Rollag, & Stavem, 2008).

In older adults, disparities in the treatment of men and women with CAD have been reported for both surgical and nonsurgical treatments (Allen, Scott, Stewart, & Young, 2004; Aragam et al., 2011; Lewis et al., 2009; Suaya et al., 2007). This is despite the fact that it is well-established that participation in cardiac rehabilitation improves quality of life, level of fitness, and exercise capacity in this population (Lavie & Milani, 1995; Marchionni et al., 1994; Packa et al., 1989; Stahle, Mattsson, Ryden, Unden, & Nordlander, 1999). Therefore, despite the clear benefits of cardiac rehabilitation, these services are profoundly underutilized, particularly by women, the elderly, and minorities.

The main objective of this study was to identify and appreciate why some women with CAD fail to visit their doctors to help manage their CAD and to identify potential ways to increase women's compliance with evidence-based guidelines that promote such annual visits to their doctors. Based on the

literature, the authors hypothesize that women face unique barriers to visiting their doctors to discuss their CAD, including family issues/obligations and misconceptions from the media (Mosca, Mochari-Greenberger, Dolor, Newby, & Robb, 2010; Mosca et al., 2006). In an effort to better understand the barriers that women with CAD face, the authors performed a qualitative analysis of women with CAD to identify common reasons why some women with CAD did not have an office visit with their primary care physician or cardiac specialist in the last 12 months, in accordance with recommended treatment guidelines. The focus of this study was on identifying common barriers to receiving recommended treatment identified by women and physicians and their reactions to possible interventions. By defining common barriers, we hope to encourage improvements to physician-patient interactions.

Methods

Study Design

Every effort was made to obtain and maintain high-quality data as is imperative with qualitative research. Cohen & Crabtree (2008) proposed seven general criteria to consider when conducting qualitative research of health care data. These, along with the more rigorous Consolidated Criteria for Reporting Qualitative Studies method of collecting and reporting qualitative data were considered when designing and implementing this study as detailed below (Fei, Liu, Yu, & Wan, 2008; Tong, Sainsbury, & Craig, 2007). To ensure the validity of the results gleaned from this study, a multifaceted team of clinicians and researchers familiar with this area of research developed and approved a discussion guide for researchers to follow while holding in-depth, semistructured, telephone interviews with women who have a diagnosis of CAD. To minimize any training effect, the private telephone interviews were performed by trained and experienced interviewers familiar with women with CAD and occurred in 2009. The interviews were semistructured and consisted of a guided script designed for subsequent content analysis. The guided script was designed to minimize researcher bias while maximizing the engagement of women pertaining to their general health and with regard to common barriers they might face that could limit them from receiving the recommended care. To help the women feel comfortable with answering the questions, the guided script consisted of an introductory conversation period, which included statements such as the purpose of the study and that there is no right or wrong answer. The introductory period also consisted of questions regarding the respondents' general state of health and support system, discussions of her heart disease, reasons for not going to the doctor in the last 12 months to manage her CAD (the decision process), and opinions about potential strategies that would motivate seeing the doctor at least annually to manage her CAD. The interviews were intentionally open ended to allow for dialogue and ease of communication with the trained research nurses conducting the interviews.

Participant Identification

Women aged 65 to 85 years who had an AARP® Medicare Supplement Insurance Plan provided by UnitedHealthcare Insurance Company (for New York residents, UnitedHealthcare Insurance Company of New York) with at least two diagnoses of CAD (ICD9 codes CM 410.00–414.99) in the previous 3 years

noted in their medical claims (as per guideline recommendations) were eligible for this study. The women were not categorized according to any other diagnoses due to the sample size, and because the guidelines for CAD management generally would not be suppressed owing to the existence of other non-life-threatening problems.

EBM Connect software was used to identify eligible women with CAD based on rules generated from the American Medical Association and other CAD management guidelines. EBM Connect is a clinical support software application that allows a health service organization to use its medical claims, pharmacy claims, and (if available) laboratory result records to find patients with selected clinical conditions and apply a series of rules-based criteria to identify gaps in patient care, patient adherence to clinical therapies, patient safety issues, unnecessary services, and care patterns. Using this software, the authors generated a list of potential women without a CAD-related office visit during the previous 12 months for inclusion in this study.

Because our intent was to conduct a small, qualitative study that would be easy to manage and would not conflict with heart disease management programs conducted in other states, we limited the search process to women residing in six states (Arizona, Colorado, Georgia, Missouri, New Jersey, and Texas) and the District of Columbia metropolitan area. The search process found 7,191 records, although some duplicate records and women with an annual office visit were contained in this list.

Researchers were provided with a list of names and corresponding phone numbers primarily of women without a CAD-related office visit in an effort to identify 30 women who remained eligible (again confirmed they did not visit a doctor to manage their disease in the past 12 months), and were willing to participate in a detailed telephone conversation about their heart disease treatment. Purposive sampling was performed until targeted accrual of 30 women was achieved (Figure 1A).

Telephone Interviews and Data Collection

The in-depth qualitative interviews consisted of detailed conversations focused on identifying and elaborating on barriers to treatment and lasted approximately 45 minutes. The conversations consisted of semistructured interviews that utilized a discussion guide and set of talking points to facilitate these conversations. To minimize any training effects on those conducting the interviews, and to maximize the quality of the data obtained, the telephone staff received training on the script prior to starting the study. Training included practice interviews between the trained interviewers and detailed reviews of those training sessions. After an initial training period, each of the interviews were performed in succession and over a short time period for consistency.

Ethical Considerations

This study was carried out in accordance with the principles outlined in the Declaration of Helsinki (World Medical Association, 1997) and in compliance with the "Protection of Human Subjects and Animals in Research" as described in the recommendations of the International Committee of Medical Journal Editors (2004). The guided script used as the basis of the telephone conversations began with a carefully worded legal disclaimer describing the patient's rights, including their right not to participate in the study, that their responses would not impact their ability or type of health care that they would

receive, and that the conversations would be recorded. Verbal informed consent was obtained from each of the participants at the beginning of these conversations. Participants received a nominal fee of \$50 to complete the interview. Information learned from these conversations was handled as strictly confidential and remained void of any patient identifiable information.

Data Quality, Analysis, and Interpretation

In an effort to obtain high-quality data that best reflected the meanings of these women, the same researchers that conducted the interviews transcribed these conversations into a computer spreadsheet shortly after the interviews were completed. Subsequently, a systematic analysis of the content derived from these interviews was performed to determine the objective or meaning of the communication and categorize them. A focus was placed on identifying perceived or real barriers to receiving care among these women (Fei et al., 2008; Tong et al., 2007). Discrepancies were agreed upon by consensus. Responses were categorized and tabulated by type of barrier based on the commonality of the responses where each column represented a barrier and each row represented an interviewee.

Physician Survey

Subsequently, we surveyed physicians to obtain a general understanding of their perceptions of the barriers to receiving recommended care that female patients may face. The survey questions asked were based on the responses from the interviews with these women, and were chosen to gain a greater understanding of the issues raised by these women. The survey of doctors also assessed physicians' perceptions of the differences between men and women in their detection and treatment of CAD. The topics chosen for the physician survey were informed by the responses to the above conversations with women, to learn whether physicians agreed with the key issues raised in the discussions with these women (Figure 1B).

We chose Sermo, Inc. (Cambridge, MA) to recruit physicians to participate in the survey from their existing national community of physicians. Sermo, Inc., is the largest online network exclusive to physicians and is designed to provide an environment for physicians to engage one another in practice-related questions. They also allow organizations such as ours to post surveys for physician participation. To participate in the survey, practicing physicians must have answered "yes" when asked if they have treated at least five patients with CAD that were at least 65 years of age, and must have indicated that they treat both male and female patients with CAD. The first 50 cardiologists and the first 50 primary care physicians were recruited for our study. Voluntary demographic and practice information were collected to help provide some context for understanding physician survey responses. Any physician who met our eligibility criteria as listed could participate. We did not attempt to control for oversampling on a regional or demographic basis. Their input was requested by means of an online questionnaire that addressed issues about their practice and routine heart disease patient interactions. Cardiologists on the panel received a nominal fee of \$60 to complete the survey, and primary care doctors were paid \$50 to complete the survey. These were the going rates offered by the survey company for participation at the time the study was conducted.

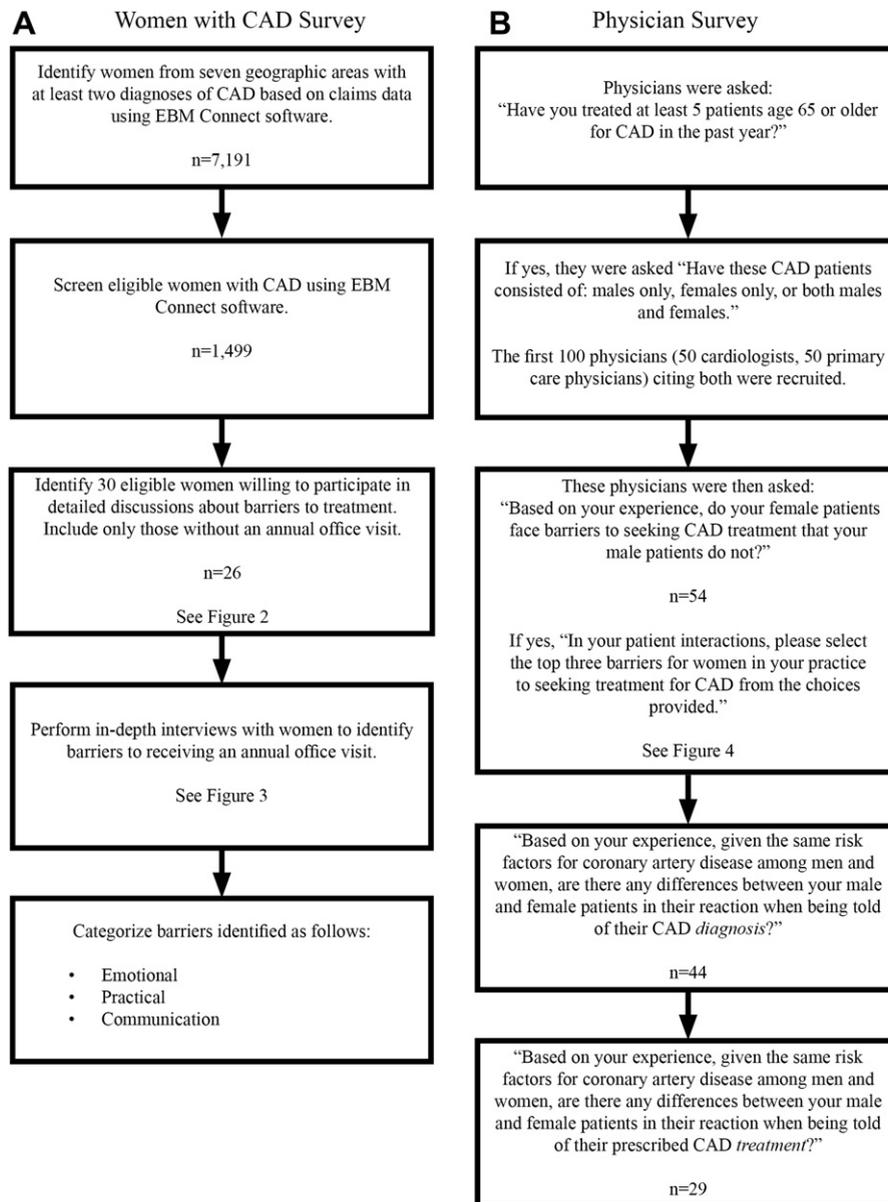


Figure 1. Overview of the survey process. (A) Flow diagram of the women's survey process detailing the identification, screening, and interview with women. (B) Flow diagram of the physician's survey process detailing the questions and answers by physicians.

In an attempt to confirm the results from the survey of women, we asked physicians if the women they treat experience barriers to care. Those who agreed were asked several other questions about the barriers that these women face were asked: "Based on your experience, do your female patients face barriers to seeking CAD treatment that your male patients do not?" Those physicians who believed females face barriers that their male counterparts do not (by answering yes) were then asked additional survey questions. Those who answered yes were then asked the following: "In your patient interactions, please select the top three barriers for women in your practice to seeking treatment for CAD." Potential responses were based on the barriers identified during the interviews with women but worded appropriately from a physician perspective. Potential responses included barriers such as denial of any heart problems, dealing with other health problems, fear of treatment,

transportation issues, thinking of others before themselves, forgetting to make an appointment, dislike going to the doctor, and a lack of understanding the extent of the problem. Barriers identified by women that were not asked of the physician included the cardiologist said I did not need follow-up, belief they may no longer have a heart problem, not the kind of person who goes to the doctor all the time, and depression.

In addition, all 100 physicians were asked these two yes or no questions: 1) "Based on your experience, given the same risk factors for CAD among men and women, are there any differences between your male and female patients in their reaction when being told of their CAD diagnosis?" and 2) "Based on your experience, given the same risk factors for CAD among men and women, are there any differences between your male and female patients in their reaction when being told of their prescribed CAD treatment?"

Results

Description of Sample

We had a purposive sample of 30 women. To achieve this, it was necessary to call 1,499 women via telephone. As detailed in Figure 2, most of the women that we attempted to contact were unreachable (52%), after making up to three attempts to reach them. This was most often due to factors such as they did not return our voicemails ($n = 392$), phone number was disconnected/invalid ($n = 180$), no one answered the telephone ($n = 155$), or someone responded that the woman of interest was not at home ($n = 50$). Another, 23% of the women were no longer eligible because they said at the start of the call that they did indeed visit their doctor to discuss their CAD ($n = 281$), or because they said they did not believe they had a heart problem or other reasons ($n = 70$). Four women who were subsequently determined to have an annual office visit were excluded from this analysis. As a result, researchers conducted telephone interviews with 26 women who were willing to participate in the detailed conversations about their barriers to CAD care and who acknowledged not going to the doctor in the last 12 months to manage their CAD. The small sample size used here allowed more time for in-depth conversations about barriers to treatment with each interview lasting approximately 45 minutes. These conversations yielded a list of important topics to address in a much larger quantitative survey to follow this qualitative study.

Sample Demographics

The demographic information for these 26 women is detailed in Table 1. The mean age of the women was 69.7 years. The majority of respondents were White, 65 to 69 years of age, and had a high school or college education.

Conversations with Women CAD Patients

Based on the telephone conversations with women, numerous barriers to having an office visit with a doctor in the last 12 months to manage CAD were uncovered. These barriers were categorized as emotional, practical, and communication barriers to treatment after tabulation by the interviewers. These are summarized according to barrier in Table 2 and Figure 3.

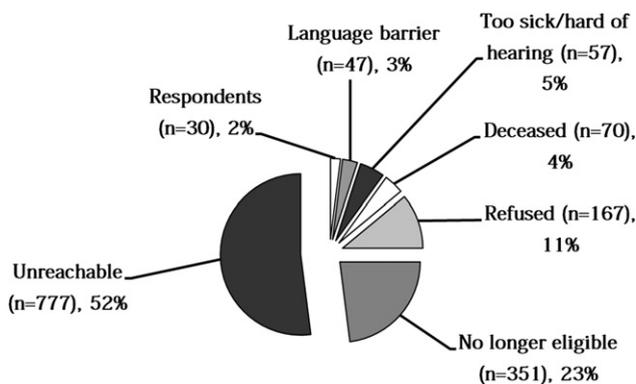


Figure 2. Enrollment. In an effort to reach our purposive sample of 30 women, we called a total of 1,499 women with CAD. After about three attempts, most women were unreachable while many others no longer met our inclusion criteria. Reasons for unreachability and no longer being eligible are described in the results.

Table 1
Respondent Demographics

Characteristic	Women with Coronary Artery Disease ($n = 26$)
Age (mean, 69.7 years)	
65–69	19
70–74	2
≥ 75	5
Marital status	
Married/living with partner	15
Widowed	7
Divorced	4
Ethnicity	
White	25
African American	1
Income (US\$)	
<20K	8
20K to <40K	9
$\geq 40K$ to <60K	8
Refused to answer	1
Highest education level attained	
Some or no high school	3
High school diploma	11
At least some college or a college degree	12

Barriers to Treatment

Of note, denial or skepticism about having real heart problems was the most commonly reported emotional barrier to treatment. Meanwhile, just as common was having to take the initiative to schedule an appointment (practical barrier). Common practical barriers to treatment cited by these women included dealing with seemingly more priority issues, including other health problems of theirs or their family members. Many of these women describe being “overwhelmed” with health problems that severely limit their or a family members’ quality of life (i.e., mobility and breathing). These included illnesses that have a more immediate and severe impact on quality of life, such as breast cancer, chronic obstructive pulmonary disease, or circulatory problems that were not thought to be heart related.

Many women did not see their own heart disease as something that is actively limiting their quality of life, at least in the present. Thus, they viewed the heart checkup as a lower priority. Transportation challenges were also a problem and included issues such as driving difficulties and not wanting to rely on others to drive them to their appointments.

Additional Barriers and Beliefs

Additional barriers include women’s beliefs that treatment received from the doctor for other issues replaced the need for an annual CAD-related visit (e.g., a few had seen a cardiologist while in the hospital for something else). Meanwhile, a limited number of women felt that their heart health was “in God’s hands.” These women said that their heart health, as well as whether they “live or die,” was not something that they or their doctors could control.

Reactions to Interventions

Part of the telephone interviews focused on determining whether there are ways to motivate women to see the doctor at least annually to manage their CAD. Receiving calls from a doctor’s office was the intervention that elicited the most

Table 2
Barriers to Treatment and Reactions to Interventions

Summary of Responses from Women Categorized by Barrier or Reaction to Intervention	n
Emotional barriers to treatment	
Denial or skepticism about having real heart problems	11
“Bad relationship” with the cardiologist	8
Tendency to take care of others rather than themselves	4
Belief that going for the check-up is simply asking to hear about trouble	3
“I’m not the kind of person who goes to the doctor all the time”	3
Fear of invasive procedures	2
Depression	2
Practical barriers to treatment	
Having to take the initiative to schedule the appointment	11
Dealing with seemingly more pressing health problems	9
Transportation challenges	5
Communication barriers to treatment	
Belief they may no longer have a heart problem	5
“The cardiologist said I did not need yearly follow-up”	5
Not understanding the benefits of going and the risks of not going for follow-up	4
Additional barriers and beliefs	
A few had seen the cardiologist while in the hospital for something else	
A few felt that other specialists are monitoring their heart condition	
A few believed that their heart health is in “God’s hands”	
Reactions to interventions	
Call from cardiologist’s office elicits the most interest	
Some liked the idea of getting information about heart health in the mail	
Additional potential initiatives to consider	
Free transportation	
Working with primary care physicians	

interest during the course of these phone conversations. Transportation assistance was another intervention that received a great deal of interest. Meanwhile, a few women were interested in getting information about heart health in the mail. It is not clear, however, if the mailing would actually motivate women to schedule the appointment to see their doctor.

In addition, referral to and ultimately routinely engaging with a trusted medical expert such as a qualified case manager/nurse educator was viewed as a potentially motivating factor for visiting a doctor’s office. Meanwhile, including families in these discussions for encouragement, and possibly even emphasizing reassurance by the physician of the importance of such

treatments, might be helpful, given the value placed on doctors’ opinions as identified in these women. Details of these interviews are available upon request.

Physician Demographics and Other Characteristics

Participating physicians had a mean age of 40.9 years, 80% were male, and most (51%) were White; nearly one third (32%) were Asian. Most of the physicians were from a large (≥ 10 physicians; 52%) or medium sized practice (5–9 physicians; 24%). The most common areas of board certification included internal medicine (39%), cardiology (34%), and family medicine (15%). Most of the physicians were from a metropolitan area (86%).

Physician Survey

Of the 100 physicians surveyed, 54% believed that females face barriers that their male counterparts do not. Those physicians that believed their female patients face barriers that their male counterparts do not were asked to select the top three barriers they believe women with CAD face. They were asked to choose from a list of eight barriers derived from the interviews with these women and those most relevant to these physicians. There seemed to be some consensus among the physicians’ opinions, because the three most common barriers were chosen two or three times or more as commonly as the other five choices. The most common barriers they noted were women’s fear of treatment (64.8%), denial of heart problems (63.0%), and putting care of other family members before themselves (61.1%; Figure 4). These physicians were also asked about differences in the ways in which male and female patients react to being told about their diagnosis and their treatment. When asked whether they saw differences in their male and female patients’ reactions when being told of their CAD diagnosis, 44.0% of the physicians surveyed responded in the affirmative. Meanwhile, over one fourth (29.0%) of the physicians indicated there are differences between their male and female patients’ reaction when being told of their prescribed CAD treatment.

Discussion

This qualitative research study examines common barriers to CAD care derived from conversations with 26 women 65 to 85

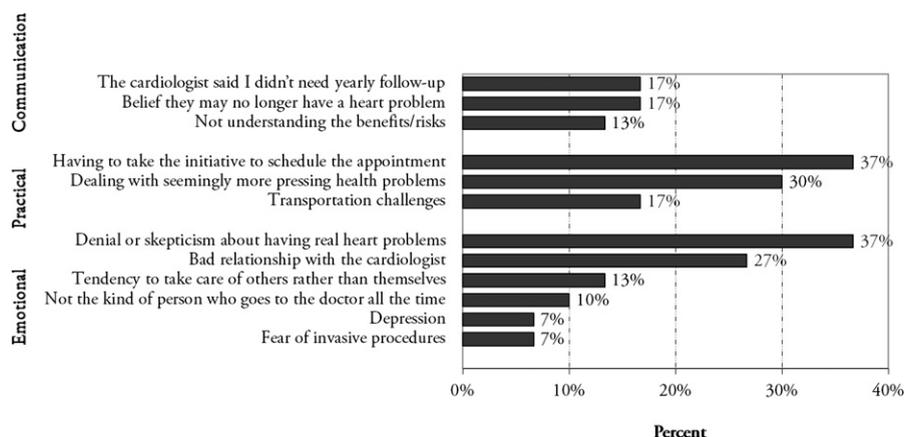


Figure 3. Most common barriers to treatment as identified by women with CAD. Responses were categorized as emotional, practical, and communication barriers to receiving recommended treatment. Values represent the percent of all women who responded with each barrier. Those with greater than one respondent are shown.

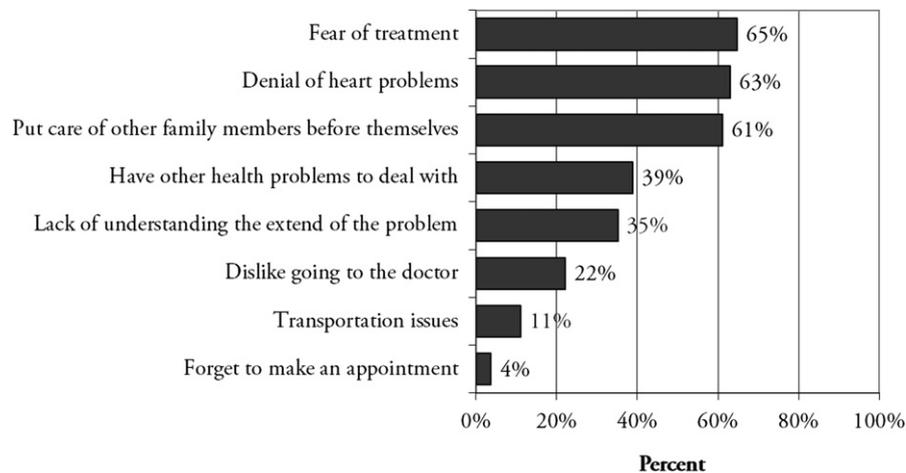


Figure 4. Top three barriers to office visits that women face, as recognized by these physicians. The most common barriers to treatment according to those physicians surveyed that believed that females face barriers that their male counterparts do not ($n = 54$). Percentages total 300% because this list contains the top three barriers identified by each physician from the list provided.

years of age. During approximately 45-minute telephone conversations, numerous barriers to annual office visits to manage CAD were raised. Subsequently, we categorized these responses as emotional, practical, and communication barriers to receiving recommended treatment.

The most common barriers identified were skepticism of heart problems, having to take the initiative to schedule the appointment, and dealing with seemingly more pressing health problems. Several women described how much they “loved” their doctors. Meanwhile, in the opinion of the reviewers, a few women feel ignored by their doctors, stating that their doctors do not speak to them “on their own level” and are “difficult to understand.” Comments obtained during the course of these interviews suggested that including family members in discussions with doctors might help to alleviate this barrier, possibly by serving as an intermediary, helping to explain certain details, and interacting with them in a manner that they might more readily understand. In general, the women interviewed were more receptive to the idea of working with a health care professional who addresses their overall health rather than only their heart condition. Many do not see their heart condition as a priority; meanwhile, they would prefer working with someone who has a holistic view of their health.

Numerous potential interventions were discussed and revealed based on the conversations with these women. Several women stated that their doctor’s office does not ask them to set up their next yearly appointment. Almost all of these women said they would go see their doctor if they were called and told to come in for their annual appointment. Similarly, getting calls from a doctor’s office received the most interest during the course of these phone conversations, suggesting that annual reminders from the physician’s office might increase the likelihood that women receive the recommended follow-up care. The authors hypothesize that CAD patients may respond well to regular check-ins and educational outreach from a trusted authority (i.e., a nurse or other medical expert). Having a trusted authority and member of the clinical care team provide this reminder might help women to overcome some of the barriers to treatment and schedule an appointment. Although further research is needed to substantiate these claims, if true, such contact could be prefaced by a letter from the primary care

physician’s office, alerting the patient to subsequent attempts to reach the member by phone, or could simply consist of a reminder to come back to the office to manage their CAD.

The authors subsequently surveyed 100 physicians who regularly treat women with CAD about the barriers identified from these women. Several of the barriers raised by the women who participated in these interviews were supported by an independent, online survey of physicians that regularly treat women with CAD. About half of the physicians surveyed believed that females face barriers that their male counterparts do not. Common barriers that the physicians cited included fear of treatment, denial of heart problems, and putting the care of other family members before themselves. These results aligned well with that of the women surveyed. When combined with the fact that more women do not receive follow-up care, these results illustrate the critical need to address barriers to care in women on a more personalized and individualized level.

A comparison of the women and physician survey is provided in Table 3 for the purposes of discussion. When comparing their responses, it is interesting to note that a considerable number of both women and physicians cited denial or skepticism of their heart problems as a barrier. Meanwhile, physicians—but not women—commonly cited fear of invasive procedures. It is unclear whether the physicians overestimate women’s fears, or if these women do not recognize fear of invasive procedures as a barrier. Last, women, but not physicians commonly cited having to take the initiative to schedule an appointment. Physicians may underestimate the impact of assisting older adults with tasks seemingly as simple as scheduling an appointment or the power of telephone reminders.

Qualitative studies in women with CAD can provide important information on how to improve outcomes by using an individualized approach (Bergman & Bertero, 2001; Davidson et al., 2008; Norris & King, 2009). When synthesized effectively, results from qualitative research studies can serve as a valuable addition to the breadth of knowledge available on a given topic (Britten, 2011). As with other qualitative research studies, this study is not without limitations. Importantly, this study focused on a small number of willing participants with various heart disease diagnoses and potentially other comorbid illnesses. Additionally, the women were selected from a much

Table 3
Summary Comparing Responses from Women and Physicians Regarding Barriers to Care

Category	Subcategory	Percentage of Women Who Agree (%)	Percentage of Physicians Who Ranked in Their Top Three (%)	Rank Women	Rank Physician
Emotional	Denial or skepticism about having real heart problems	42	63	1	2
Practical	Having to take the initiative to schedule appointment*	42	4	2	8
Practical	Dealing with seemingly more pressing health problems	38	39	3	4
Emotional	Bad relationship with the cardiologist	31	22	4	6
Practical	Transportation challenges	19	11	5	7
Emotional	Tendency to take care of others rather than themselves	15	61	6	3
Communication	Not understanding the benefits/risks	15	35	7	5
Emotional	Fear of invasive procedures*	7	65	8	1

* Barriers with the most disagreement among these women and the physicians.

larger pool of women that were predominately White and limited to women at least 65 years of age with an AARP Medicare Supplement plan insured by UnitedHealthcare residing in only a few states. Therefore, this study population was not necessarily representative of the female Medicare population as a whole. Next, it is possible that some of the women were acting in a manner to please the interviewer, which can bias responses toward more favorable comments (Feveile, Olsen, & Hogh, 2007). This is particularly plausible with regard to reactions to possible interventions, which may not have been a personal issue for all respondents. Additionally, in an effort to engage these women as much as possible, the talking points generated from these discussions were limited; therefore, some important issues may have been missed.

Although not necessarily generalizable, findings from this, and other qualitative studies, offer some important lessons (Polit & Beck, 2010). These women often described themselves as feeling “overwhelmed” by their diagnosis, treatment options, and/or outcomes. This may be an indication that these women are not ready to accept their diagnosis or to take the steps necessary to receive the care that is recommended. Therefore, identifying and subsequently reducing the barriers to receiving care, in combination with family support and educational conversations about their situation, might help women to receive the recommended care. In particular, women seemed burdened by emotional barriers such as skepticism of heart problems, while often prioritizing the care of other family members rather than themselves. More practical barriers identified by these women included having to take the initiative to schedule an appointment and the sense that they are dealing with seemingly more pressing health issues.

In conclusion, based on the qualitative information gathered from these interviews, the authors agree that reasonable opportunities exist for clinicians to collaborate and help women to receive their prescribed follow-up care (Kuller, 2010). For example, the authors conclude that active involvement by doctors' offices to schedule appointments or to provide mail-based reminders may help improve adherence to recommended office based visits (Harkness et al., 2005; Heid & Schmelzer, 2004). For a review, see Petrilla, Benner, Battleman, Tierce, and Hazard (2005). The results we have gleaned from this study have led to changes in several of our nurse-led disease management programs, including initiating a reminder program for women with heart disease, and reminding the nurses to ask their patients if they have discussed their diagnosis with their doctor. These and other implications for practice include incorporating interventions designed to motivate women to see their

doctors at least annually, consistent with clinical practice guidelines; emphasizing the importance of educating patients (and their families) on the significance of routine care for their heart; and encouraging family support. We hope that providers and managers of other nurse-led or similar programs can benefit from these results, because they are in the best position to impact women such as those interviewed in this study. Future work includes designing a survey to administer to a representative sample of thousands of women, to test more rigorously whether the barriers identified in this study are widely experienced.

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