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Women's Walking Program for African American women: Expectations and recommendations from participants as experts

Diana Ingram, PhD, MPH [Assistant Professor],
College of Nursing, Rush University

JoEllen Wilbur, PhD, APN, FAAN [Professor and Associate Dean for Research],
College of Nursing, Rush University

Judith McDevitt, PhD, APN [Associate Clinical Professor], and
College of Nursing, University of Illinois at Chicago

Susan Buchholz, PhD, APN [Associate Professor]
College of Nursing, Rush University

Abstract

Effective interventions that increase adherence to physical activity (PA) are important for African American (AA) women because generally they are less active and more obese compared to white American women. The purpose of this study was to elicit from women who began a 12-month PA program between 2002 and 2005: 1) their recollections of outcome expectations and barriers, 2) feedback on program components, and 3) suggestions for program change. In 2007, we conducted qualitative post-intervention focus group interviews with women who had participated in the enhanced treatment group. Thirty-three AA women aged 44–69 years at the time of the study participated in one of four focus groups held at their community intervention site. Focus groups were formed on the basis of low (walked < 50% of expected walks) versus high (walked ≥ 50% of expected walks) adherence and low (0–2) versus high (3–4) attendance at the four workshops held during the 6-month adoption phase. Audio-taped sessions were transcribed and coded independently and then uploaded into NVivo7 for final coding and data analysis. Suggestions for future program components included a lifestyle PA prescription, pedometers for self-monitoring, ongoing group support and automated telephone support. Focus group participants can serve as experts to assist in content development for improving program effectiveness.

Keywords

African American; Physical Activity; Qualitative Methods

INTRODUCTION

Effective interventions that increase adherence to physical activity (PA) are particularly important for African American (AA) women because, compared to white American women, AA women are less physically active (24% vs. 36.2%) and more obese (Body Mass Index [BMI] ≥ 30: 51.0% versus 32.8%) (Roger et al. 2011). Regular, moderate PA reduces the risk of many diseases associated with obesity, for which the prevalence rate is also higher in AA women than white American women, most particularly cardiovascular disease (47.3% vs. 33.8%) and diabetes (14.7% vs. 6.5%) (Roger et al. 2011). PA trials have

indicated that anywhere from 9% to 87% (Mean=45%) of participants do not adhere to an intervention and that high dropout rates plague maintenance of PA (Marcus et al. 2006). The success rates for PA interventions in racial/ethnic minorities are no exception to this problem. Cultural relevance has been lacking, attrition rates are high, and of the few significant PA behavior changes reported, effect sizes have been modest (Yancey et al. 2004; Marcus et al. 2006). However, coinciding with the increasing acceptance of community-based research engaging nonacademic researchers in the process of creating knowledge (Israel et al. 1998), a growing body of qualitative research has uncovered the substantial barriers faced by AA women in becoming more physically active.

We identified eleven qualitative studies that provided an in-depth understanding of barriers that are now used to inform the development of PA interventions. Although not exclusive to AA women, barriers identified included limited time due to demands of work, school, home, children, partners, and social obligations (Kirchhoff et al. 2004; Zunker et al. 2008); a sense of mental fatigue from physically demanding jobs and household work and a need to compensate by resting (Nies, Vollman, and Cook 1999; Henderson and Ainsworth 2003); perceptions that “leisure time” does not exist for them (Yeager, Macera, and Merritt 1993; Airhihenbuwa et al. 1995; Henderson and Ainsworth 2003); beliefs that leisure-time PA is an unaffordable indulgence and is only for women outside one’s neighborhood (Wilbur et al. 2002); and that enough PA is obtained by living a “busy life” (Wilbur et al. 2002). Additional barriers are obesity and other health problems such as the musculo-skeletal conditions that may arise or worsen when obese, sedentary individuals undertake more PA (Bopp et al. 2006; Zunker et al. 2008). Environmental characteristics of some neighborhoods also present barriers to PA, including concerns about harassment from homeless persons and drug dealers, feeling unsafe at local parks, and gang activity (Wilbur et al. 2002; Sanderson, Littleton, and Pulley 2002). Neighborhood socioeconomic factors have been linked to PA and suggest that resources such as affordable exercise facilities and other features of neighborhood environments (e.g., sidewalk or road conditions, street lights) are not equitably distributed (Sanderson, Littleton, and Pulley 2002; Richter et al. 2002; Kirchhoff et al. 2008). Within predominately low-income urban minority communities, these deficiencies present additional barriers to PA.

The Women’s Cardiovascular Health Network was among the first to ask AA women to make recommendations for a PA intervention tailored to their needs. Twenty-six focus groups were held with rural and urban AA women throughout the United States (Sanderson, Littleton, and Pulley 2002; Wilbur et al. 2002; Richter et al. 2002). The consensus across regions was that women needed to come together in a group for social support within their own community in order to successfully adopt and maintain a more physically active life style. This could be in the form of structured exercise classes or workshops centered on healthy lifestyles. In addition, women desired exposure to role models promoting PA, attention given to personal safety issues, and cost-effective PA opportunities such as church-based interventions.

We identified one qualitative study that asked AA women after the completion of a PA intervention what prevented them from meeting their PA goals, but suggestions to improve the intervention in the future were not elicited (Dunn 2008). Heesch et al (2005), however, used focus group methodology to explore women’s (76% Caucasian) experiences with a minimal contact pedometer study. The women suggested a number of ways to improve the intervention such as providing feedback to gauge progress and providing opportunities for contact with other participants. This type of post-intervention study completes the cycle of qualitative work and moves knowledge forward in identifying intervention strategies that are culturally relevant and can eventually translate to clinical practice. Greater involvement of the community members in the planning, design and evaluation of the intervention is likely

to give a sense of ownership and commitment and can make the intervention more culturally relevant (Dancy et al. 2004).

In 2007, we conducted a post-intervention focus group study with AA women residing in Chicago who had participated in the Women's Walking Program between 2002 and 2005. The focus groups were designed not only to 1) elicit recollections of the women's outcome expectations and the barriers they experienced, but also to 2) obtain feedback on all of the program components (walking prescription, workshops, tailored telephone contacts), and 3) seek suggestions for changes to make the program more appealing to AA women.

METHODS

The study used a qualitative exploratory design with focus group methodology (Krueger 1994). The women participating were drawn from the enhanced treatment arm of the Women's Walking Program, a home-based 12-month, community-based PA intervention (6 months adoption, 6 months maintenance). As described elsewhere, the program was designed in collaboration with AA women to improve cardiovascular outcomes in women at elevated risk for cardiovascular disease (Wilbur et al. 2002; Wilbur et al. 2008). Either the enhanced treatment or a minimal treatment was randomly assigned to one of two federally qualified community health centers in Chicago. The enhanced treatment included an orientation and four weekly workshops led by AA role models that focused on the benefits of PA, overcoming barriers, and overcoming relapses to a sedentary lifestyle. Over the following eleven months, women received 16 telephone contacts from an AA role model staff member who provided advice and support. Women received a tailored walking prescription (30 minutes of walking, 3 to 4 times a week, at moderate intensity self-monitored with heart rate monitors) based on a maximal aerobic fitness test. They kept a log of their walks and entered the date of each walk into an automated telephone response system so that their adherence could be tracked. The minimal treatment consisted of only the orientation, walking prescription and automated telephone system, without participation in the workshops or receipt of motivation/advice telephone contacts.

As described in detail elsewhere, the Women's Walking Program eligibility criteria included sedentary AA women between the ages of 40 and 65 years who had no major signs or symptoms of cardiovascular disease, history of stroke or myocardial infarction, uncontrolled diabetes, blood pressure >160/100 mm Hg or who had problems with ambulation, or participated in regular moderate or vigorous exercise for 30 minutes or more two or more times a week (Wilbur et al. 2006). Between 2002 and 2005 women were recruited within a three-mile radius of the community health centers. Brochures and flyers were distributed throughout the community and at health fairs and community gatherings. Also, social networking occurred with the study participants. Women who met initial screening criteria over the telephone were scheduled for a health assessment at the community health center with an advanced practice nurse. A total of 696 women contacted the Women's Walking Program offices to be screened, 443 were screened as interested and eligible over the phone, 281 were screened as eligible at the health assessment, and of these, 156 received the enhanced treatment and 125 received the minimal treatment.

Women in the enhanced treatment group had greater adherence to walking and better physical/ psychological outcomes compared to the minimal treatment group, both as measured at the end of adoption or the first six months and at the end of maintenance or the second six months (Wilbur et al. 2008). However, despite our successes, only about half of the women in the enhanced treatment group adhered to 50% or more of the prescribed walks during adoption or the first 6 months. Adherence outcomes were even lower in the minimal treatment group.

Participants

All women who participated in the Women's Walking Program gave permission at the time of initial consent to be recontacted. Early in 2007, each woman from the enhanced treatment group received a letter inviting them to return to the community health center that was their data collection site during the intervention for the focus group study. The letter explained the purpose of the study and asked them to call the program office if they were interested or had questions. However, the letter also indicated that if we did not hear from them, a staff member would make a follow-up telephone call inviting them to participate.

Of the letters sent to 156 women in the enhanced treatment group, 21 letters were returned as undeliverable and 30 women contacted us directly by telephone following receipt of the letter. We attempted to contact the remaining 105 women by telephone. Telephone numbers for 32 women no longer worked, telephone contact was made with 41 women, and 32 women did not return our telephone calls by the start of the focus groups. Of the 71 (45.5%) women with whom contact was made, 51 (71.8%) said they were available and agreed to participate.

The 51 women who confirmed their intent to participate were assigned to a focus group based on workshop attendance and walking adherence during the 6-month adoption phase of the intervention. Participants in focus groups A and B had attended 0 to 2 of the workshops and their adherence at the end of adoption (6 months) was under 50% of the expected walks. Participants in focus group C had attended three to four of the workshops and their adherence at the end of adoption was 50% or more of the expected walks. Focus group D included participants who had attended three or more workshops, but it had a mix of high adherers (more than 50% of expected walks) and low adherers (less than 50% of expected walks).

Procedures and data collection

The institutional review board of the university approved the study. Before the focus group interviews began, the participants were again informed about the purpose of the focus group study with time provided for questions and answers. The consent form was read to each participant prior to obtaining signed consent.

An AA research specialist skilled in conducting focus groups conducted the focus group sessions. An AA specialist was chosen because research has shown that matching the race/ethnicity of the interviewer with the participant facilitates conversation (Peek et al. 2008). She was assisted by a nurse researcher co-leader and a research assistant. Each focus group began with the discussion leader welcoming the participants and explaining the purpose of the focus group. The participants were told that the questions did not have "right" or "wrong" answers and that the purpose of the focus groups was for each woman to discuss her point of view, even if it was different from what others had expressed. Participants who were not as verbal were encouraged to join the discussion with directed prompts from the discussion leader.

The focus groups were structured by a discussion guide that included several main questions and prompts. The guide included questions about the participants' outcome expectations for the intervention and how they overcame barriers to walking (Table 1). Women were also asked what they liked and disliked about the intervention components (i.e., walking prescription, heart-rate monitors, automated telephone response system, workshops, telephone support contacts) and what changes they would recommend for future programs. To assist recall of the details of the enhanced treatment they had received, visual aids included a slide presentation of the study components that the women viewed while passing around the heart rate monitor, the walking log books, and the participant manual used in the

intervention. A pedometer was also passed around for the women to handle and consider as a possible alternative to the heart rate monitor in future programs. The focus groups were audio-taped with two tape recorders for later transcription. Participants received a light snack and \$20 at the end of their focus group session. The focus groups lasted on average two hours and were conducted one to three years after the women had completed the study.

Except for current age, descriptive statistics for the present study were drawn from prior Women's Walking Program data. Background characteristics including demographics (age, marital status, education, socioeconomic status) and BMI had been obtained at baseline, prior to the start of the walking intervention. Socioeconomic status was measured with the material hardship measure (Bauman 1998), which has seven items regarding ability to meet expenses including housing, utilities, telephone and medical need and two items related to food adequacy. Also, women had been asked to self describe their family income as low, medium or high. Body mass index (weight [converted to kilograms] divided by height [converted to meters] squared) was based on measured height and weight (US Department of Health and Human Services 2008). For the present study, age was also obtained at the time of the focus groups.

Data Analysis

Before we began our analysis, audio recordings of the focus groups were transcribed verbatim by an experienced transcriber and the transcripts compared to field notes taken during the focus group sessions. No discrepancies were noted between the transcriptions and field notes.

An initial list of codes was developed by the second author based on topics covered in the focus groups. Then each of the interview transcripts were read and coded independently by the first three authors, all of whom had been previously trained in the use of these codes. We then met together to discuss how we coded our transcripts. During these meetings, we viewed each other's coded transcripts using an interactive SMART Board. This line-by-line examination allowed us to confirm our codes and findings (Lincoln and Guba 1985). Using an iterative process of constant comparison, we identified and refined our ideas to advance our analysis of the data. After we identified consensus codes, the transcripts and codes were uploaded into NVivo7 (QSR International Pty Ltd 2006). Similar codes were grouped together into categories and definitions added for each code so the coding process was consistent (Sorensen 2008). As the coding process moved forward, new codes were added. The codes and categories were examined for their relationship to experiences the women had in the walking program. We then reconvened to verify recurring codes and the appropriate categories, discuss the interpretation of our findings, and reach a final consensus on the data analysis and emergent themes.

RESULTS

Of the 51 women who agreed to participate, 33 women came to one of four focus groups, with 4 to 13 women per group (65% response). No significant differences were observed in baseline demographic characteristics, BMI, number of workshops attended, or adherence to walking between the 33 focus group participants and the 123 women in the enhanced treatment arm of the Women's Walking Program not participating in the focus groups (Table 2). The mean age of the focus group participants at the time the groups were held was 54 years (SD = 6.8).

Outcome expectations

Across all focus groups, weight loss and improved body shape were the expected outcomes women reported mostly frequently. Other outcome expectations mentioned included stress reduction, avoiding needles (diabetes), and controlling blood pressure. The women joined the program mainly to “jump start” and “reprogram” themselves to be more active. Both low and high adhering women indicated an attraction to the program because they recognized that the program was designed specifically for them as AA women.

Barriers

Both low adherers and high adherers reported musculo-skeletal problems and weight issues associated with walking (i.e., heel spurs, knee injury, back pain, joint pain, and herniated disc) as barriers to maintaining PA. These conditions sidelined their efforts and interrupted their participation in the walking program. However, the primary barriers reported by both low adherers and high adherers were limitations related to family and work responsibilities, weather, and neighborhood safety. For example, one woman commented on neighborhood safety: “... Like bullets flying. That’s why I bought a treadmill. I said, ‘I’m not walking out there.’” Another commented, “Work and family...The work that I do is overwhelming and I allowed that to be not only overwhelming at the worksite, even with my outside activities as far as walking.” In all groups, women identified a potential de-motivator to exercising as a lack of role models within their communities. For example, one woman reported: “I went earlier (to walk) about 7:30 this morning ... but I didn’t notice not one AA female, not one. I said now this is really, truly sad.”

Likes and dislikes of the intervention components

Walking prescription—The women in both the high-adherer and low-adherer focus groups indicated that they joined the program to get support for increasing their walking. One woman in the high-adherer group stated that “it (the prescription) was real good because you know how you’re walking and if you don’t know what your goal is or whatever, then you’re just out there.” Women appreciated having a defined prescription that provided the structure they wanted to establish a new exercise routine. Although women in the high-adherer group saw the value of lifestyle PA, it was not their main focus. They wanted a specified frequency, duration/bout, and intensity prescription for walking. In comparison, women in the low-adherer focus groups, who struggled with adherence during the program, were receptive to learning about how to increase their daily lifestyle PA incrementally, without attention to intensity or specified bouts of walking.

Heart rate monitor and telephone response system—Overall, the women in both the low-adherer and high-adherer groups wanted feedback or “real evidence” of their progress and found it motivating. No differences were observed between the low-adherer and high-adherer groups regarding their use of the heart rate monitor. Their satisfaction was exemplified by these comments: “I loved it (the heart rate monitor), it made everything real. I had that machine on me”; “It let me know if I needed to do something, do more walking or get my heart rate up or whatever”; “It made me in tune with what I was doing”; “It showed me how I was progressing.” Women in the high-adherer groups expressed a real loss when they were asked to return the monitor at 24 weeks. Women in the low-adherer groups, as did some of the higher adherers, found it time consuming to put the heart rate monitor on and take it off. Both groups indicated that pedometers would be more convenient to use and could provide feedback on steps accumulated throughout the day. High-adherers were enthusiastic about a pedometer that would have an added feature to capture intensity of walking.

Women reported no difficulty in entering walks into the automated telephone response system. However, participants indicated that if they knew they could also get feedback from the automated telephone response system, they could better see the “value of it” rather than just using it for reporting activity.

Workshops

All focus groups talked about the social support benefits they derived from listening to the other women attending the workshops. For example, women stated, “They (the workshops) were motivating. I liked hearing everyone’s stories and different things that motivate them”; “It gave me accountability”; “Sharing helped us up the ladder.”

Women in the low-adherer groups felt that the workshops ended before they had time to get started and that if they missed one session, they were already behind. Women in the high-adherer group noted that it was a drawback that the workshops were held early in the program when they were still highly motivated. After the first month, when they began to experience problems with lapses, the groups were over and other members were no longer there to provide support. The women in both the high and low adherer groups agreed that the weekly workshops were difficult to attend for women whose lives were busy. They did not want fewer meetings overall but suggested the benefit of ongoing workshops monthly or every six weeks. As with scheduled clinic visits to their health care providers, they suggested that spreading out the meetings would allow time for women to experience and problem solve about the barriers to becoming more physically active. In addition, women in the high-adherer group said they would have preferred starting the workshop series as a cohort rather than being staggered in as participants were enrolled. That way they could connect with the same women over time.

Telephone support

Response to the AA role model staff telephone contacts from both the low- and high-adherer groups was generally positive. The women commented, “It made you feel important”; “It shows a concern for the women”; “They helped to keep me on track.” They wanted to be truthful to the caller, and some did their walking so they could give a “good report.” Some women in the low-adherer focus groups, however, admitted to not responding to calls when they had not walked. They expressed “embarrassment” and “guilt and disappointment” and would avoid the calls. They emphasized that they did not want to “lie” about their walking, so they would simply ignore the call from a recognizable office number. The women in both groups also said they would not mind an automated machine providing tips on how to overcome barriers. The lowest adhering group indicated that the anonymity of the automated system might be particularly helpful for women who experience guilt over not walking, while keeping them connected.

DISCUSSION

Most of the prior qualitative studies with AA women have assessed factors influencing their PA (Airhihenbuwa et al. 1995; Bopp et al. 2006; Nies, Vollman, and Cook 1999). Only one prior study directly elicited feedback from AA participants after completion of a walking program, and the focus in that study was on barriers to a PA prescription (Dunn 2008). In our study, we went beyond barriers to walking and asked about fulfillment of outcome expectations following a walking intervention, insights on the intervention components, and suggestions for improving the intervention. The predominately overweight and obese women in the Women’s Walking Program were faced with innumerable barriers that challenged their ability to maintain a walking program. Based on the participants’ comments

and suggestions, we identified changes in the intervention to address their unique barriers better in the future.

A lifestyle physical activity prescription

Musculo-skeletal problems associated with obesity were barriers to even the low to moderate intensity walking in this intervention, suggesting the need to change the program's approach to increasing PA. Basing success on a prescribed walking regimen (planned exercise alone) of specific frequency, duration, and intensity does not appear to be an optimal approach for many overweight and obese AA women. A lifestyle approach may be more effective by starting with increasing the overall volume (amount) of lifestyle PA obtained in household, occupational, and leisure time activity. This approach could assure ample time for physical conditioning and build in opportunities for success throughout the day, thus increasing the volume of PA for AA women. A key to improving adherence to behavior change is to keep expectations realistic (Bandura 1997). A prescription that initially simply focuses on volume of PA may help to avoid musculo-skeletal problems (Powell, Paluch, and Blair 2011) and can provide the early successes so critical for meeting expectations and thereby maintaining motivation, improving PA adherence, and building self-efficacy. AA women have reported higher self-efficacy for intermittent walking that can be accumulated throughout the day rather than 30 minutes of continuous leisure-time walking, for which they perceived their time demands and neighborhood environment were not conducive (Heesch, Masse, and Aday 2000).

Self-monitoring the prescription

Although the women often struggled to adhere to their tailored walking prescription, most liked having a defined goal. They also liked using the heart rate monitor to monitor their prescription, but some found it intrusive. Pedometers (simple body-worn motion sensors) are sensitive to walking, count steps, and are useful and minimally intrusive for measuring accumulated PA (Tudor-Locke et al. 2004). They may be an ideal alternative to the heart rate monitor. A pedometer with an accelerometer feature can also measure intensity of PA, thus providing expanded feedback. Such a pedometer could be used to assess baseline steps and tailor progression of PA safely. Informed by baseline steps, we could first emphasize volume or frequency of walking (adding steps throughout the day), then duration of walking (adding 10- to 30-minute bouts of PA), and finally intensity of walking.

The women successfully used an automated telephone system for reporting their walking (Wilbur et al. 2008), but they realized no personal benefit and reporting waned over time. An automated response system that programs each woman's PA prescription (step goals) and allows women to input their own step counts could expand feedback. Calculating mean daily steps for the week, classifying steps achieved from "sedentary" to "high active" based on normative data (Tudor-Locke et al. 2005), and noting progress on step goals would benefit each caller.

Optimizing the group component

Although group-based interventions can raise costs, we argue (from our work and that of others) for the particular importance of group social support for AA women (Gaston, Porter, and Thomas 2007). Group support was an intervention component that women in the focus groups strongly supported. Enrolling cohorts of women rather than staggering them in, providing group meetings or workshops over a longer time frame (every five weeks rather than weekly for four weeks), and adding a booster review session would enhance group support without substantially increasing the time commitment, help women adhere more fully, and increase PA self-efficacy.

A potentially sustainable strategy to build in social support would be to provide a PA intervention within a primary care setting as part of the setting's health care services, enrolling the participants from the patient caseload and conducting a schedule of group visits. The group visit model is used in clinical settings to simultaneously provide health services and interventions such as PA (Noffsinger, Sawyer, and Scott 2003). The "group visit" could be overseen or ideally delivered by an AA advanced practice nurse, or the advanced practice nurse could be assisted by an AA role model (Peek et al. 2008). Such visits can be reimbursed by billing for the primary care provided for each patient at the same visit. The group visit model offers a cost-effective, reimbursable approach for increasing social support and promoting self-efficacy for behavior change in health care settings (Jaber, Braksmajer, and Trilling 2006).

Telephone support using motivational interviewing or automated support

Maintaining telephone contact between group visits may help keep women connected. However, Emmons and Rollnick (2001) suggest that reliance on such approaches that involve questioning and persuasion, as used in the Women's Walking Program telephone contacts, can lead to resistance and ambivalence ultimately, resulting in avoidance of telephone calls. Motivational Interviewing (MI) is a client-centered counseling approach designed to explore and resolve ambivalence about changing behavior (Miller and Rollnick 2002). A review of MI interventions shows positive results with a variety of health behaviors (Burke, Arkowitz, and Menchola 2003). Key components of MI used to build self-efficacy are an empathetic style, reflective listening, and objective feedback (Emmons and Rollnick 2001). The professional is no longer the expert, avoids unsolicited advice, and allows the individual to identify her own solutions. The only study to examine the use of MI provided by telephone in AAs found an increase in PA, but the effect was not greater than culturally targeted materials alone (Resnicow et al. 2005). Study limitations were the lack of any group support and the limited dose of four telephone contacts over a year. Also, while MI approaches may be found more effective, they are costly and likely not sustainable. A PA intervention could not be scaled up and widely applicable if costs were prohibitive.

Delivery of behavior change intervention via an automated telephone response system may address problems associated with person-delivered calls and at lower costs. A systematic review found that automated telephone educational messages were acceptable to individuals (Krishna et al. 2002). An automated system was first introduced for PA programs by Pinto et al. (2002), but the improvement in adherence seen at three months was not maintained at six months. The lack of sustained effects may have been a result of requiring participants to call into the system, resulting in decreased calls over time. This problem was addressed in the Community Health Advice by Telephone Trial study comparing the effectiveness of PA support, information and advice delivered on the telephone by health educators to an automated telephone response system that called subjects periodically (King et al. 2007). Significant improvements in PA were seen at six months and maintained at 12 months in both conditions.

An automated telephone support system may be an effective, low cost, attractive supplement to group-based strategies for women who report being self-conscious and feeling guilty when they do not walk (King et al. 2004). Such a system can be delivered using an AA woman's voice. Persons who used an automated telephone system for health behavior counseling have reported that they liked the anonymity of interacting with a machine (Kaplan, Farzanfar, and Friedman 2003).

Limitations

The focus groups were held up to three years following the intervention, and participants may have experienced problems with recall. The women who came to the focus groups wanted to give time to the program and so may not have been a representative subsample. Those women who chose not to attend might have provided different input. This may have affected the generalizability and nature of the recommendations made. Because the investigators developed the focus group interview guide to address specific topic areas of the Women's Walking Program intervention components, comparisons of findings with studies using other interview guides may not be possible. The generalizability of the study results may be limited due to the small and selective nature of the Women's Walking Program itself, which included only mid-life low to moderate income AA women living in urban metropolitan areas.

CONCLUSIONS

This study used focus groups to learn directly from AA women about their experiences during a PA intervention. The participants represented both high and low adherers to walking. As the experts, the participants served as nonacademic researchers to identify culturally relevant intervention strategies to address their unique barriers to PA, including ongoing periodic group support and the use of AA role models. Technologies such as pedometers and an automated telephone support system were endorsed as useful for future community-based interventions.

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Table 1**Women's Walking Program Focus Group Interview Guide Questions**

| |
|--|
| <p>1. What did you expect as an outcome of participating in the program? <i>Probes:</i> Did this expected outcome influence your participation in any way? What were your motives for joining and continuing with the Women's Walking Program?</p> |
| <p>2. What things got in the way of your walking and how did you overcome them? <i>Probes:</i> Time, weather, safety</p> |
| <p>3. What aspects of the program did you find to be most helpful and think we should continue? <i>Probes:</i> Physical activity prescription; workshops (social support, content, length); phone calls (frequency, content, approach, length); heart rate monitors; automated voice response system.</p> |
| <p>4. What aspects of the program did you find the least helpful and why?</p> |
| <p>5. What activities would you suggest adding to a physical activity program to make it more appealing to women like yourself? <i>Probes:</i> Motivation; type of physical activities; type of workshops.</p> |
| <p>6. Now we would like to share with you some of the things we are proposing as new strategies that may help to increase physical activity in African American women. We would like to learn your option about these strategies.</p> <ul style="list-style-type: none"> • Focus on life style physical activity throughout the day at work, at home or homemaking, walking to get somewhere like the store or for exercise and use of a pedometer. <i>Probes:</i> Would you find these helpful? How? • Workshops (timing, frequency, duration, group membership, content) <i>Probes:</i> Would you find it helpful? How? • Telephone response system for automatic feedback on progress <i>Probes:</i> convenience, accessibility • Personal motivational calls for PA frequency burden duration <i>Probes:</i> frequency, duration, burden, convenience. |

Table 2

Baseline demographic characteristics and BMI, workshop attendance and adherence to walking of the focus group participants compared to those of the Women's Walking Program Participants

| Baseline Characteristics | Focus group (n=33) | WWP (n=123) |
|---|--------------------|-------------|
| Age (years) (Mean, (SD)) | 49.4(6.8) | 48.4 (6.2) |
| Married (%) | 42.4 | 39.0 |
| Children | | |
| Have children (%) | 97 | 86.9 |
| Number of children(Mean, (SD)) | 2.7(1.8) | 2.1 (1.8) |
| Education (%) | | |
| Less than high school | 0 | 1 |
| Completed high school or GED | 11.1 | 9 |
| Some college or vocational school | 60.6 | 51 |
| Completed college or higher | 27.4 | 39 |
| Hardship | | |
| No hardships (%) | 51.5 | 48.8 |
| One hardship (%) | 21.2 | 19.8 |
| More than 1 hardship (%) | 27.3 | 31.4 |
| Self-report of income level (%) | | |
| Low | 50.0 | 46.1 |
| Medium | 50.0 | 51.3 |
| High | 0 | 3 (2.6%) |
| Body mass index (kg/m ²) | | |
| Normal <18.5–24.9 | 9.1 | 11.1 |
| Overweight 25–29.9 | 18.2 | 18.0 |
| Obese 30.0–39.9 | 39.4 | 47.0 |
| Morbidly obese 40 | 33.3 | 23.9 |
| Number of Workshops attended | | |
| 0–1 | 36.4 | 42.7 |
| 2–3 | 21.2 | 22.2 |
| 4 | 42.4 | 35.0 |
| Percent adherence to number of expected walks | | |
| <25% | 33.3 | 37.6 |
| 25–49% | 27.3 | 24.8 |
| 50–74% | 15.2 | 11.1 |
| 75–100% | 24.2 | 26.5 |