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Barriers, Motivations, and Preferences for Physical Activity Among Female African American Older Adults

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Abstract

According to the Centers for Disease Control and Prevention, less than 11% of adults more than the age of 65 meet the 2008 Physical Activity Guidelines for Americans. Among minority populations, only 5% of non-Hispanic Black older adults met the guidelines. Given our limited understanding of psychosocial and environmental factors that affect physical activity participation in these groups, the purpose of our focus groups was to investigate barriers, motivators, and preferences of physical activity for community-dwelling African American older adults. Three focus groups were conducted with female African American older adults ($N = 20$). Questions posed to each focus group targeted motivations and barriers toward physical activity as well as their preferences for physical activity. The motivations included perceived health benefits of physical activity, social support, and enjoyment associated with engagement in physical activity. Prominent barriers included time and physical limitations, peer pressure and family responsibilities, and weather and poor neighborhood conditions. Group activities involving a dance component and novel exercises such as tai-chi or yoga were preferred choices. These findings should be taken into consideration when designing and implementing research or community physical activity programs for female African American older adults.

Keywords

ethnic minority, exercise, social cognitive theory, qualitative research

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Introduction

The Centers for Disease Control and Prevention (CDC) recommends at least 150 min of moderate to vigorous intensity aerobic physical activity and 2 or more days of strength training per week for older adults (Haskell et al., 2007). There is considerable evidence that demonstrates the physical and mental health benefits of physical activity in reducing the risk for morbidity and mortality (Lee et al., 2012; Nocon et al., 2008). Physical activity interventions and programs have shown to improve functional fitness and reduce disability and physical limitations, which are particularly important outcomes for older adults (Keysor, 2003; Paterson & Warburton, 2010).

In spite of increases in physical activity over the past decade (Dwyer-Lindgren et al., 2013), the majority of Americans, especially older adults, still do not meet the recommended levels of physical activity. Disparities are evident in that African Americans participate in less physical activity and are less likely to meet physical activity guidelines compared with non-Hispanic Caucasians (Mama et al., 2015; Matthews et al., 2008).

According to the National Health Interview Survey (NHIS), Caucasians were most likely to meet physical activity guidelines (51.2%) whereas African Americans were the least likely to meet physical activity guidelines (43.4%) (CDC, 2014). In addition, women (17.6%) were less likely to meet the physical activity guidelines than men (25.4%) based on age-adjusted estimates from the NHIS 2014.

In an attempt to increase physical activity levels and reduce health disparities, interventions have been targeted toward the African American communities (Banks-Wallace & Conn, 2002; Lemacks, Wells, Ilich, & Ralston, 2013; Pekmezi & Jennings, 2009). These interventions have ranged from home-based to community-based programs with the goal of educating masses about the

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importance of physical activity as well as actively promoting physical activity participation by designing exercise programs. Researchers have reported that ethnic minorities are the least likely to volunteer to participate in exercise programs offered in the community (Dornelas, Stepnowski, Fischer, & Thompson, 2007), and mean attendance and retention rates at programs are lower for African Americans compared with Caucasians (Lemacks et al., 2013). These reviews underscore the need to understand individual, social, and environmental challenges that prevent African American populations from successfully adopting and adhering to physical activity.

The social cognitive theory (Bandura, 1986), which emphasizes the interactions among individual or personal factors, and the social and physical environment, has been extensively used as a framework to design physical activity programs for older adults (McAuley, Szabo, Gothe, & Olson, 2011). The theory emphasizes the need to identify determinants of behavior such as barriers and motivations, which can be targeted to change health behaviors, including physical activity. In accordance with this theory, researchers have stated that little is known about how African American communities perceive physical activity and the factors which encourage or discourage participation in physical activity (Belza et al., 2004). Similarly, Bopp et al. (2006) stated that researchers need to investigate psychological, sociocultural, and environmental factors to successfully tailor interventions to African American men and women.

Thus, the goal of this study was to investigate and better understand the motivations and barriers to physical activity for older urban African Americans. To determine the individual, social, and environmental factors that affect physical activity behavior, we conducted three focus groups. In addition, a secondary purpose was to explore participant preferences for physical activity that can aid in designing future physical activity programs for this minority population.

Method

Participants

Twenty female community-dwelling African American adults (M age = 63.15 \pm 4.5 years) participated in one of three focus groups. Participants were recruited from the Detroit metro area as well as surrounding urban communities via community listservs and flyers distributed at senior citizen events. Interested participants were between 55 and 75 years of age, English speaking, and able to attend a focus group meeting. Eligible participants were provided with details about the focus group dates, times, location, and scheduled to attend one of the three meetings. The university review board approved the study, and all participants signed an informed consent before participation.

Table 1. Participant Characteristics of the Female African American Older Adults ($N = 20$).

Variable	$M \pm SD/n$ (%)
Age	63.15 \pm 4.5
BMI	32.25 \pm 5.04
Marital status	
Married	3 (15%)
Single	7 (35%)
Divorced/separated	7 (35%)
Widowed	3 (15%)
Income ^a	
Less than US\$20,000	4 (20%)
US\$20,001-US\$40,000	8 (40%)
US\$40,001-US\$60,000	4 (20%)
US\$60,001 or greater	3 (15%)
Education	
High school graduate	1 (5%)
1-3 years of college or 2-year college/ technical school	10 (50%)
College/university graduate	3 (15%)
Master's degree	5 (25%)
PhD or equivalent	1 (5%)
Employment status	
Full-time 35+ hr	7 (35%)
Retired, working part-time	2 (10%)
Retired, not working at all	7 (35%)
Full-time homemaker	2 (10%)
Other	2 (10%)
Health	
Excellent	2 (10%)
Very good	10 (50%)
Good	8 (40%)
PASE (moderate to vigorous physical activity/day)	31.42 \pm 39.8

Note. BMI = body mass index; PASE = Physical Activity Scale for the Elderly.

^aOne participant chose not to disclose this information.

Measures

Participants completed a basic demographic questionnaire about age, sex, marital status, income, education, and self-rated health before beginning the focus groups. Participants also completed the Physical Activity Scale for the Elderly (PASE; Washburn, Smith, Jette, & Janney, 1993) that assesses self-reported physical activity levels over a 7-day time period in older adults across three different domains: leisure, household, and occupational activity. PASE assesses activity counts based on the frequency, duration, and metabolic equivalent value of physical activity. Height and weight were also recorded, and body mass index (BMI) was calculated for the participants (Table 1). The questions used for the focus group discussions are presented in Table 2 and targeted (a) motivations and barriers to physical activity participation, and (b) preferences for physical activity.

Table 2. Focus Group Questions.

Attitude toward physical activity	
1	What kinds of physical activity do you enjoy?
2	What are the advantages and disadvantages you experience by engaging in physical activity? In other words, how does your activity have an effect on your health?
Barriers and motivations	
1	What motivates you to participate in physical activity?
2	What prevents or constrains you from participating in physical activity? What are the barriers you face?
Preferences	
1	If a free exercise class was offered, would you prefer a home-based exercise program or a community-based exercise program?
2	Which types of physical activity would you prefer?

Procedures

Upon arrival, participants completed an informed consent and the demographic questionnaire. Focus groups were led by the principal investigator and a research assistant who first explained the purpose of the discussion and encouraged every participant to share his or her ideas and opinions. The focus groups were audiotaped and transcribed following the conclusion of the sessions. One research assistant was trained to take additional notes during each focus group. These notes from note takers provided backup in case of recording equipment failure or audio clarity issues. The focus group meetings lasted 75 to 90 min. During each session, the moderator asked a series of specific, predetermined questions (Table 2) to the group and encouraged participants to share their opinions. Although transportation was not provided, parking costs were covered, snacks and beverages were provided, and participants were given a US\$10 gift card as honorarium.

Analysis

We used deductive content analysis to analyze the information from each of the three focus groups. Based on the social cognitive theory tenets, the themes were organized into categories, namely, individual/personal factors, social factors, and physical environmental factors. The first author and an external consultant were provided with the definitions for these social cognitive theory factors and coded the barriers, into one of three categories for each focus group discussion. After independent coding, the first author and the expert compared findings and discussed the prominent themes. These themes and excerpts from the discussions are reported below.

Results

Participant Characteristics

As seen in Table 1, a majority of participants in these focus groups perceived themselves as being physically

healthy and had positive views of their current health status. Although obese on average (BMI = 32.25) when asked about their overall health, no participant rated their health as poor. Two (10%) participants rated their health as “excellent,” 10 (50%) rated their health as “very good,” and the remaining eight (40%) rated their health being in “good” condition. On the PASE, the mean score was 31.42 min of moderate to vigorous exercise per day. Additional participant demographics including income, marital status, and education are reported in Table 1.

Motivations

Health and well-being. For the majority of the participants, the primary motivation to be physically active was maintaining good physical and mental health. The participants shared their observations and experiences with family and friends, repeatedly emphasizing the role of being active to accomplish everyday activities and staying independent as they age. During the focus groups, participants shared specific examples, including “stress release,” “feeling more alert,” “strengthen my bones and muscles,” and simply “feeling better,” that motivate them to stay active. One participant succinctly summarized it as “being able to stay by myself, take care of myself, and stay out of the nursing home.”

Social support. “People encouraging you and support from others is a big thing,” said one participant highlighting the role of family, friend, and community in physical activity participation. Several participants mentioned that not only does this motivate them to be more active but they enjoy helping others reach their goals as well. One participant said, “I love seeing the progress of others,” and another stated, “Seeing other’s progress motivates me even more.” Other than family and friends, one participant emphasized the encouragement from her doctor, and several participants discussed educational and social programs and community events as a source of information and support that motivated them to stay active.

Enjoyment. Participants also reported exercising for pure fun or enjoyment. As one participant quoted, “Well I am motivated because I love what I do.” The enjoyment also stemmed from the social aspects of exercise and “music” as one participant disclosed. Some participants reported enjoyment as a function of being able to actively play and engage with their grandchildren, nieces, and nephews.

Barriers

Similar to the motivations, three clear themes emerged during the focus group discussions centered on barriers to physical activity: weather, time, and physical limitations. Participants also discussed social factors and other

physical environmental conditions that prevent them from engaging in physical activity.

Personal factors. Time was the biggest and most common barrier reported by participants across the focus groups. "I have so much to do and I just can't fit it (exercise) in," reported a participant. As seen in Table 1, nine of the 20 participants were working part- or full-time and reported having a busy routine that did not always allow physical activity. Two participants also reported scheduling conflicts, which were related to work or family duties. The other personal barrier highlighted by five of the 20 participants was physical health and limitations. Participants discussed common age-related limitations including "bad knees," "arthritis," "injuries," "sciatica," "vertigo," "physical pain," and "depression" that were "... barriers that I can't do very much about" as one participant summarized. Participants also discussed physical activity that sometimes aggravated their physical pain and symptoms. One specifically stated, "During dancing I do not feel anything. But then when I go sit down it all locks up and the bad pain kicks in." A second participant said,

I know that if I exert myself, then I am going to pay for it the rest of the day and maybe tomorrow. There have been times that I have been on an ice pack for 3 days because I have done something strenuous.

However, although this was acknowledged as a barrier, many participants agreed that it is still necessary to exercise as "The temporary discomfort is still worth it."

Social factors. Participants also discussed two social factors that sometimes prevent them from engaging in physical activity. "Family responsibilities" was emphasized by a participant. "Family can get in the way," one shared. Babysitting for grandchildren was a common activity that participants said occasionally interfered with their personal time. A second social factor was peer pressure. "Peer pressure is a problem. Other people might think let's go to the mall and that might influence you not to exercise," shared one participant who strongly believed it was a barrier to exercise.

Environmental factors. Environmental factors that affected physical activity consisted of weather, poor physical conditions in the neighborhood, crime, and access to facilities. A majority of the participants agreed that weather conditions presented the greatest environmental barrier to physical activity. Seven of the 20 participants raised the issue of snow, icy conditions, and rain that prevented them from engaging in outdoor activities, including walking. In addition to the weather, the participants stated physical conditions of the streets, pavement, and street lighting that were unfavorable for safe participation in physical activity. One participant shared, "Some of the pavement is just a hazard. You

really have to be careful, especially people who might need some assistance." Crime was also discussed by four participants as it related to the physical condition of the environment especially poor street lights. Two participants pointed out the issue of access to recreational facilities and the need to drive long distances, often in poor weather and road conditions. Finally, another environmental factor that was a nuisance for several participants was the presence of animals in the neighborhood. One participant said, "I think I fear dogs and animals more than people. Dogs are kind of why I stopped walking." Not all participants seemed to experience this barrier, and it appeared to be relevant to certain geographical locations within the Detroit metro area.

In spite of the barriers identified by the participants, in each of the focus groups, participants expressed that they were highly motivated to engage in physical activity and admitted that sometimes these barriers were simply "self-imposed" or a "mind-set." One participant shared, "I think many people's barriers are self-imposed" and another said, "Other than something physical I don't really know any (barriers)," "I have to be determined to do it." It was clear that the participants underscored the value of an active lifestyle and were willing to overcome their barriers based on the resources available to them.

Preferences for Physical Activity

Dancing as a mode of physical activity. In all three focus groups, dancing was the preferred mode of physical activity for a majority of the participants. Some reported participating in group fitness classes focused around the "hustle" or "zumba." Participants said that dancing not only is a great workout with many health benefits but is also fun due to the creative and social aspects. One participant said, "I like dancing. Even though I do not dance as well as I used to, I really enjoy it. I enjoy the comradery and the joy of talking with others." In addition to dancing, aerobics and walking were their preferred activities. Participants were also interested in strength training but many reported being unfamiliar with the use of weights and performing strengthening exercises in the proper form. Participants were also open to experiencing mind-body-based programs such as tai-chi or yoga. One reported, "I love it (tai-chi), it is slow and it works all your muscles." Another shared, "You learn control, it (tai-chi) can even help you during icy weather to catch you fall."

Group exercise. When asked whether the participants would prefer to participate in a group-based physical activity program or a home-based program, 17 participants chose a group-based program whereas only four participants chose a home-based physical activity program. Several participants agreed that they do not do well exercising alone. One participant said, "I prefer to exercise part of a group, or at least with a partner. Sometimes it is hard to get motivated when I am by myself."

The majority of participants in each focus group shared this sentiment.

Discussion

The purpose of these focus groups was to examine barriers and motivations for African American older adults that affect participation in physical activity as well as understand their preferences for physical activity. Results of these focus groups show that African American older adults experienced the same barriers that have been reported in the literature, including time, weather, and physical health, whereas some barriers may be unique to their urban setting or neighborhood—which in this study related to poor infrastructure and crime in some Detroit neighborhoods. In terms of preferences for physical activity, dancing was a preferred choice, but participants also expressed interest in experiencing other gentle forms of exercise, including tai-chi or yoga. The common choice in terms of the format of exercise was a group activity that allowed for social support and engagement with their community.

Themes observed as barriers to exercise included weather, time, crime, and poor neighborhood walkability and infrastructure (i.e., lighting, sidewalk quality). The findings are consistent with other studies that assessed physical activity among African Americans and reported weather as a barrier to physical activity (Evans, 2011; Hoebeke, 2008; Kirchhoff, Elliott, Schlichting, & Chin, 2008). However, in this study, several participants participated in physical activity that took place indoor, either within their own homes or a recreation center, and were not as affected by weather. Weather was a greater barrier for individuals who did not have easy access to exercise facilities due to poor transportation or long driving distances. Lack of safety and crime also negatively affect individuals' participation in physical activity (Gallagher et al., 2010; Gomez, Johnson, Selva, & Sallis, 2004), especially among urban communities (Foster & Giles-Corti, 2008). Physical pain is a common deterrent to physical activity among older adult populations (Crombie et al., 2004). Our findings were similar to previous studies that reported pain as a primary barrier and also a motivator of physical activity (Belza et al., 2004). Pain is an important barrier to consider for African American communities who report more pain than Caucasian Americans (Green, Baker, Sato, Washington, & Smith, 2003).

Taken together, these barriers should be addressed and minimized when promoting physical activity among African American older adults. For example, implementing programs at local community centers may overcome barriers related to access to facilities, long driving distances, and weather. Physical limitations should be carefully considered, and safety should be prioritized by trained instructors conducting the programs. Home-based programs can also be tailored taking into account physical limitations and functioning levels of the participants. For example, some DVD-based programs have shown to

improve functional fitness as well as physical activity levels among older adults (Gothe et al., 2015; McAuley et al., 2013). Developing interventions that help individuals manage physical pain optimally may improve physical activity levels and in turn physical health in African American samples (Green, Baker, Smith, & Sato, 2003; Ibrahim, Burant, Siminoff, Stoller, & Kwoh, 2002). Pain management can also be achieved by providing educational materials on appropriate warm-up and cool-down practices following physical activity, such as stretching exercises, and developing modifications for exercises that can be performed at various levels of difficulty, for example, using varied weights for arm curls.

Interestingly, although several barriers were discussed during the focus groups, the individuals who participated in these focus groups were highly motivated and valued the health benefits of physical activity. While the participants openly discussed the genuine and perceived barriers they faced, they also proposed suggestions to overcome these barriers to participate in some form of physical activity. Participants collectively agreed that sometime these barriers were just self-imposed or a mindset, and they were able to work around these barriers to engage in physical activity. It is, however, important to note that all participants in this study were healthy and reported to be in "good" if not excellent physical health. Motivation to exercise can be a challenge especially for individuals in poor health or experiencing clinical symptoms (Cohen-Mansfield, Marx, & Guralnik, 2003). In a review examining barriers to physical activity in African American women, the researchers stated that motivation was the top barrier for overweight women (Joseph, Ainsworth, Keller, & Dodgson, 2015).

Developing interventions that target improving self-efficacy may help individuals in African American communities overcome their personal and social barriers. Evidence suggests that self-efficacy exerts a powerful influence on the exercise behavior of older adults (McAuley, Jerome, Marquez, Elavsky, & Blissmer, 2003; McAuley, Lox, & Duncan, 1993). Although social support, frequency of exercise, and pleasure or displeasure associated with exercise are related to physical activity program adherence, systematic prospective studies suggest that these effects are also indirect and are mediated by self-efficacy (McAuley, Jerome, Elavsky, Marquez, & Ramsey, 2003). McNeill, Wyrwich, Brownson, Clark, and Kreuter (2006) also reported that social support had an indirect effect on participation in physical activity via self-efficacy and motivation. Therefore, physical activity programs should adopt social cognitive framework and target improvements in self-efficacy to increase physical activity participation and adherence to physical activity programs for African American older adults.

The participants in these focus groups shared similar interests and preferences enjoying activities such as dance, aerobics, and walking. Findings of this study are consistent with other studies that have reported dance to be a popular

exercise preference of women, especially in the African American communities (Grieser et al., 2006; Robinson et al., 2003). Participants were also open to novel modes of exercise including yoga and tai-chi, as long as there were opportunities to engage in these activities at a reasonable cost and a convenient location in the neighborhood. Walking was a preferred activity among the participants because it was free and could be practiced anywhere.

In addition, group-based interventions that involve a social component are preferred compared with exercising alone within urban African American communities. Social support plays a key role in physical activity engagement in African American individuals. Young and Stewart (2006) reported that higher baseline social support predicted change in physical activity. A higher level of exercise self-efficacy associated with social support is usually noted among older women (Litt, Kleppinger, & Judge, 2002). One participant in this study shared that once they lost their significant other, they stopped walking because they had no one to walk with anymore. When designing physical activity programs for urban African American communities, it is important to consider the type of activity and the quality of social interaction that takes place during that activity. Social support is a key component of the social cognitive theory, which can be a promising framework to improve physical activity levels among African American communities, especially women.

Certain study limitations must be addressed. As the study only examined females, our findings can be generalized only to female African American older adults. Specifically, preferences for dancing-related activities that are reported in our study may be largely preferred or enjoyable to African American females rather than males. Bopp et al. (2006) stated that future research needs to address this issue and target interventions that are successful among African American males. In addition, the individuals in our focus groups were from the Detroit metro area, which may not necessarily translate to all racial or ethnic communities in other urban areas in the United States. Finally, the participants were healthy older adults who were highly motivated to be active. A couple of individuals were instructors and trainers at community centers, whereas some were members of local health clubs and fitness centers. Therefore, these highly motivated individuals might not have the same barriers to physical activity compared with less motivated individuals in the community. Future research should examine urban African American samples who may also have significant physical limitations or chronic conditions to understand their barriers and preferences and design tailored physical activity programs.

Conclusion

Overall, the findings from these focus groups are important for understanding and developing physical activity programs that will be successful within the urban African

American communities. Addressing barriers such as weather, time, crime, and physical limitations may help improve participation as well as maintenance to a physically active lifestyle among African Americans. Group-based physical activities with a dancing component as well as gentle forms of exercise such as tai-chi and yoga may be promising modes of activity. Future research and outreach should involve development of group-based physical activity interventions with a strong emphasis on social support to promote a healthy active lifestyle among African American older adults. With the higher prevalence of physical inactivity and health disparities in African American communities, it is crucial to examine their challenges and build on such findings to develop sustainable programs to improve health and quality of life within this population.

Declaration of Conflicting Interests

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