


# Perceptions, Opinions, Beliefs, and Attitudes About Physical Activity and Exercise in Urban-Community-Residing Older Adults

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## Abstract

**Background:** This research study illustrates the perceptions, opinions, beliefs, and attitudes of older adults residing in an urban community as major factors to understanding barriers and motivators in older African Americans, Hispanics, and Asians adults within Washington, DC. **Methods:** Eight focus group sessions conducted with 58 older adults to determine their understanding of physical activity and exercise, as well as of barriers to, motivators for, and benefits of physical activity and exercise. **Results:** The results showed that dance was the preferred physical activity and exercise, fixed or limited income were the main barriers, and prolonged life, more energy, and a stronger body were the main benefits. **Conclusion:** The results will assist in recommendations to policy makers on programs for older adults that will increase physical activity and exercise for local citizens. These interventions are more likely to increase older adults' ability to remain in their communities and improve their overall health and well-being.

## Keywords

physical activity, exercise, barriers, motivators, urban, older adults

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## Background

Increasing evidence suggests that lack of physical activity is more prevalent in older adults in industrialized countries.<sup>1</sup> Physical inactivity contributed to or caused complications in 10% of colon cancer cases, 10% of breast cancer cases, 7% of diabetes cases, and 6% of cardiovascular diseases. Cardiovascular disease has been noted as the fourth leading risk factor for mortality.<sup>2</sup> The leading causes of mobility disability is the lack of physical activity.<sup>3</sup> Engaging older adults in physical activity not only decreases the chance of mobility disability but also provides health benefits. These health benefits include a positive impact on cognitive flexibility, depression, sleep disturbance, Alzheimer's disease, heart health, diabetes, and general health benefits.<sup>4</sup>

The World Health Organization<sup>5</sup> defines physical activity in older adults as any movement that requires energy expenditure.<sup>5</sup> Global recommendations for older adults include leisure-time physical activity, transportation, household

tasks, sports, games, and any family or community activity in the category of "physical activity." Recommendation for physical activity and exercise in the older adults are at least 150 minutes of moderate-intensity aerobic exercise or at least 75 minutes of vigorous-intensity aerobic exercise per week, for a minimum of 10 minutes per session. Watson et al<sup>6</sup> evaluated inactivity in older adults and noted that the prevalence of chronic conditions increased with aging. More than 62% of adult aged 65 years and older were physically inactive.<sup>6</sup> Racial and ethnic minorities demonstrated lower levels of physical activity than whites.<sup>7</sup> Older adults are living longer; therefore, factors contributing to older adults engaging in physical activity and exercise has been discussed at the

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policy level. There is a plethora of studies on motivators and barriers of physical activity and exercise; however, one area of research under examination more recently reflects environmental factors that affect the ability to engage in physical activities and exercises.

## Environmental Factors

Cities are observing an upward shift in the numbers of older adults living in cities, which has led many local government efforts to improve socialization and decrease isolation among older adult residents. The older adults in the current study live in Washington, DC, which has been listed as an age-friendly city. Washington, DC Age Friendly 2020 Strategic Plan<sup>8</sup> included essential features such as adding green spaces and outdoor settings that are well-maintained and safe, public transportation that is reliable, and frequent, traffic flow that is well regulated, affordable housing that is close to community services, and events held at times convenient for older adults. The District of Columbia local government has implemented many of the suggestions in Age Friendly 2020 Strategic Plan<sup>8</sup> making it a beacon of transformation for older adults. The suggestions are part of a checklist published by the World Health Organization that cities can adapt to provide positive experiences and decrease barriers for older adults. When implemented, many of these features increase opportunities for older adults in urban environments to be more active.

More recent research suggests that adding greenspace areas (parks) helps improve rates of physical activity in surrounding communities. Communities with a higher percentage of minority or low-income residents have less access to greenspace and are noted to be more inactive.<sup>9</sup> Environmental factors such as unsafe routes or unwalkable distances were associated with decreased physical activity.<sup>10</sup> Previous researchers have suggested that environmental factors inhibit physical activity and exercise in older adults and act as barriers.<sup>11</sup>

Barriers to physical activity and exercises manifest for older adults in many ways leading to health, social, and economic complications.<sup>12</sup> Increase in physical activity, on the other hand, leads to a delay in age-related functional impairment.<sup>12</sup> The built environment may also pose a barrier to physical activity in older adults. Morgan et al<sup>12</sup> noted that external barriers are those such as access, facilities, cost, time limitation, weather, and support from family. Internal barriers include fear of injury, pain, safety, and health limitations.<sup>12</sup> Potential barriers to physical activities and exercise are those such as (1) not enough time; (2) no one to exercise with; (3) lack of facilities; (4) too tired; (5) already active; (6) do not know how to do it; (7) too lazy; and (8) lack of motivation.<sup>13(p583)</sup> In addition, environmental factors such as access to exercise facilities, neighborhood safety, and psychological issues are equally considered barriers. Depressive symptom diagnosed in Alzheimer's disease

patients is a less known and rarely discussed barrier in older adults that also causes physical inactivity.<sup>14</sup> To counteract these barriers are the things that motivate older adults to engage in physical activity and exercise.

Gillette and colleagues characterized motivators as self-motivational goals, personal goals, knowledge of exercise, and liking the exercise facility.<sup>15</sup> Resnick et al<sup>16</sup> found psychological benefits, such as improved mood and a sense of independence, while the physical benefits included a sense of feeling stronger. African American women reported to be less physically active than White women<sup>17</sup>; however, they found that older African American women were motivated by an overall feeling of physical and mental health, wellness, and physical attractiveness.<sup>17</sup> Motivators in older African Americans rallied around health and well-being, social support, and enjoyment as key promoters to being physically active.<sup>18</sup> The current study aimed to fill a gap in the literature to understand the perceptions, opinions, beliefs and attitudes of this select group of urban-residing older adults on whether engaging in physical activities and exercise was beneficial. The goal of this study was to understand the perceptions, opinions, beliefs, and attitudes of urban-residing older adults on the benefits of physical activity and exercise. The question that guided this research is, *What are the motivators to, barriers of, and benefits derived from engaging in physical activity and exercise?*

## Methods

Eight focus groups were held between July 17 and July 31, 2019 with 58 older adults who participated in Senior Companion and Respite Aid programs. This research was approved by the University Institutional Review Board at the University of the District of Columbia (IRB #138067-3).

## Recruitment

Convenience sampling was employed to recruit older adults who attended a regular educational program at the university. This group attended educational sessions monthly and in the month of April 2019, the principal investigator (PI) was a guest speaker at the April educational session and made a public announcement of the need to understand older adults' perceptions of physical activity and exercise. The PI asked by a show of hands how many would be interested in participating in the focus groups and those present agreed. Each older adult was made aware that participation was voluntary and would not result in any loss of benefits for non-participation. Furthermore, they were made aware that the focus groups would occur at their normal educational session, which allow their routine to remain the same. Each person was asked to sign a roster indicating a desire to participate. This roster was used to arrange participants in focus groups.

## Data Collection

At the start of the focus group sessions, each participant listened as the consent form read aloud and given the opportunity to read the consent form silently. Participants who agreed to continue with the focus group were asked to sign the written consent form. Each participant instructed to complete a short survey to collect demographic information, current level of physical activity and exercise, and 2 questions on food intake. Each survey questionnaire was written at the prescribed reading level of literacy for the general population. The survey for Hispanic and Asian older adults were translated in the respective language allowing participants to read the questions in his or her native language.

Each group of participants reported to their respective focus group room where the trained moderator would guide the focus group discussions. The moderators used a semi-structured 5- to 8-question moderator script as a guide.

Example of focus group questions follow.

### Focus Group Guide

- Tell us about your adult experiences with physical activity?
- What gets in the way or prevent you, your friends, or family member from being as active as you'd like to be?
- What are the things that motivate you to engage in physical activities?
- What type of physical activity do you enjoy the most?
- In what way do you feel supported by your community?
- Some people like to have a leader or trainer when doing physical activity. What kind of leader or trainer do you like to have for physical activity?
- What would be the ideal physical activity or exercise program?

## Data Analysis

Focus groups were audio-recorded and video-recorded. The audio-recordings were transcribed verbatim by a transcribing service. Transcripts were analyzed individually by each of the moderators to ensure that transcripts reflected accurately. Each transcript reviewed by the entire research team manually. The PI and 2 other researchers coded the data from each of the transcripts. Research variables had been established and were the underpinning of the data analysis. The research team combed through each transcript and coded each research variable under each theme. As the coding continued, emergent themes appeared. The research team spent several weeks reviewing the themes, returning to the data until a point of saturation reached.

## Results

Eight focus groups were conducted with 58 participants, 42 African Americans, 8 Latinos, and 8 Asians. Average age of participants was 72 years, with 9 male participants and 49 female participants. The presence of females outnumbers males. In these volunteer programs participants act in the capacity of caretakers and these are heavily influenced by female volunteers. These programs allow older adults to volunteer their time as companions for older home-bound seniors in Washington, DC. These senior volunteers represent every ward in the District of Columbia. (Wards are boundary lines that divide the District of Columbia into 8 sections.) Each ward contains approximately 75,000 persons.) Racial and ethnic backgrounds included African Americans (42/58), Latinos (8/58), and Asians (8/58).

Most participants had completed high school, and were single, married, or divorced. See Table 1 for the list of participant's characteristics. It is important to note that 66 members attended the educational session; however, this study reports on the 58 participants who agreed to participate in the focus groups. Each of the focus groups was videotaped using an Apple iPad and audiotaped using a Philips recording device. The six focus groups of African Americans were transcribed verbatim by A-Plus Transcription Company. The Hispanic and Asian focus groups were transcribed by the focus group moderator.

Four overarching themes were predetermined, and 4 themes were evident from the data and were congruent with the predetermined themes as seen across all focus groups (Table 2).

### Theme 1: Defining What Is Physical Activity or Exercise

Participants were asked to define what physical activity and exercise meant to them and overwhelmingly most could differentiate between physical activity and exercise. Most participants across all focus groups agreed that physical activity could include everyday activities, like doing household chores or running after grandchildren, while they indicated that exercise was more structure interpreting this as having attended an exercise class where there is an instructor. Majority of participants took pleasure in walking as a form of physical activities and dancing as a structured activity.

### Theme 2: Barriers of Physical Activity and Exercise

Many participants agreed that poor physical health, illness, lack of interest, lack of companionship, fixed and/or limited income, weather conditions, and transportation were barriers. The term *stress* was used often across all focus groups and in particular the Hispanic focus groups where the women

**Table 1.** Summary of Participant Characteristics.

Characteristic	N
<b>Gender</b>	
Male	9
Female	49
<b>Age in years</b>	
55-59	0
60-64	7
65-69	18
70-74	14
75-79	11
80-84	6
85 or older	2
<b>Race/ethnicity</b>	
Caucasian	0
African American	42
Hispanic/white	8
Hispanic/non-white	0
Asian/Chinese	8
<b>Marital status</b>	
Single	12
Married	14
Divorced	15
Widow/widower	16
Separated	1
<b>Level of education</b>	
Less than high school	19
High school	23
Some college (no degree)	10
Associate's degree	2
Technical school	1
Bachelor's degree	3
Graduate degree	0
<b>Level of physical activity</b>	
No activity	2
Low activity	9
Somewhat low activity	17
Somewhat high activity	23
High activity	7
<b>Participate in regular exercise</b>	
Yes	39
No	17
No answer	2
<b>Health status</b>	
Very poor	1
Somewhat poor	7
Average	19
Somewhat good	20
Very good	11
<b>Mark all the health conditions you have been told you have</b>	
Arthritis	27 (46%)
Back issues	6
Cancer	2

(continued)

**Table 1. (continued)**

Characteristic	N
Diabetes	18 (31%)
Fibromyalgia	0
Hearing impairment	2
Heart attack	2
High blood pressure	41 (71%)
High cholesterol	26 (45%)
Hip issues	5
Kidney disease	1
Knee issues	18 (31%)
Lung diseases (asthma, chronic obstructive pulmonary disease)	7
Macular degeneration	1
Multiple sclerosis	0
Osteoporosis	5
Parkinson's disease	0
Shoulder issues	3
Stroke	3
Visual impairments/eye health issue	9
Other	5

expressed how they felt compelled by adult children in their native home country to send money; while the Asian participants experience mood swings that affected the decision to engage in physical activity or exercise.

### Theme 3: Motivators or Promoters of Exercise

Overwhelming many participants agreed that socializing with others, hearing inspiring stories of how older adults are living longer due to routine exercise regimen motivated them to exercise. Participants in the Asian group were motivated to exercise only if there was a change in health status that prompted the need to become more active. Hispanic participants on the other hand, were motivated to exercise as it kept them active and healthy, which allowed them to continue to work, with the goal of sending money home to their adult children. Participants in the African American group mentioned that the more you engage in physical activity or exercise the longer you live; longevity was a popular term these members used.

### Theme 4: Benefits of Physical Activity and Exercise

Most participants agreed that a feeling of mental and physical well-being, weight loss, attractiveness, prolonged life, and a feeling of being fit and strong were benefits derived from physical activity and exercise. Finally, low-cost physical activity and exercise programs that were conveniently located at community centers dedicated to seniors were ideal for encouraging active and routine participation. Structured exercises, which included activities such as dancing and walking, top the list as a preferred activity.

**Table 2.** Thematic Analysis Across Focus Group Sessions Conducted July 17 and July 31, 2019, Which Consisted of 58 Participants That Included African Americans, Hispanics, and Asians.<sup>a</sup>

Themes	Participants' quotes																								
<p><i>Theme 1: Defining what is physical activity or exercise</i>                      There was clear differentiation among all focus groups of the difference between unstructured (physical activity) and structured (exercise)                      Some examples noted</p> <table border="0"> <tr> <td>Unstructured</td> <td>Structured</td> </tr> <tr> <td>House cleaning</td> <td>Spin classes</td> </tr> <tr> <td>Dancing</td> <td>Zumba classes</td> </tr> <tr> <td>Exercising in bed</td> <td>Walking</td> </tr> <tr> <td>Gardening</td> <td>Water aerobics</td> </tr> </table>	Unstructured	Structured	House cleaning	Spin classes	Dancing	Zumba classes	Exercising in bed	Walking	Gardening	Water aerobics	<p><i>Well, what I see here is that exercise can be movements, a range of motions, body exercise, mind to body, and physically doing exercise. I'm always constantly exercising. I'm always busy. I never sit down. If I sit down, 15 minutes. I'm always on the go. I'm always doing something for somebody. This right here is nothing new, to me, because these are the things that I do anyway. [CH, Focus Group 1—African American]</i></p> <p><i>Exercise: The younger seniors are healthier and are more exercise oriented. They walk in a park and at malls. They like to dance and take Zumba and aerobic classes. The others, with more health issues (cardiac, cholesterol, etc), like to take arthritis and exercise while seated classes.</i></p> <p><i>Physical Activities: At home, they exercise their arms and on the bed some due stretches with the rubber band. Some like to dance while cooking. Happy music from their countries changes their mood to joy. Sometimes they cry when they remember their countries [Focus group 2—Hispanics]</i></p> <p><i>Moderate physical activity usually is slow walking, carry grocery home, housework. Vigorous physical activity: chasing the bus, riding a bike. [Focus group 3—Asian]</i></p>														
Unstructured	Structured																								
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Exercising in bed	Walking																								
Gardening	Water aerobics																								
<p><i>Theme 2: Barriers of physical activity and exercise</i></p> <table border="0"> <tr> <td>Physical</td> <td>Financial</td> <td>Emotional</td> <td>Environmental</td> </tr> <tr> <td>Joint stiffness</td> <td>Transportation</td> <td>Depression</td> <td>Lack of parks</td> </tr> <tr> <td>Poor eyesight</td> <td>Fixed/limit income</td> <td>Fear of falling</td> <td>Unsafe neighborhood</td> </tr> <tr> <td>Poor hearing</td> <td></td> <td>Family sickness</td> <td>Recreation centers too far</td> </tr> <tr> <td>Overweight</td> <td></td> <td>Loneliness/isolation</td> <td></td> </tr> <tr> <td>Out of breath</td> <td></td> <td></td> <td></td> </tr> </table>	Physical	Financial	Emotional	Environmental	Joint stiffness	Transportation	Depression	Lack of parks	Poor eyesight	Fixed/limit income	Fear of falling	Unsafe neighborhood	Poor hearing		Family sickness	Recreation centers too far	Overweight		Loneliness/isolation		Out of breath				<p><i>What are the barriers for you not doing physical activity? Laziness. Yes. Or just tired. Yes, tired. Just tired. That is good. That is very good. And lack of commitment. Oh yes, lack of commitment. I agree. Physical limitations. [Focus group 4—African Americans]</i></p> <p><i>Now you're going to throw to me some of the barriers to physical activity and exercise. You mean like strenuous activity? Activities, not exercise. Right. Strenuous activities, for me. Overweight. Yes. Some people overweight. They can't do it. Medical problems. Back problems, medical problems. Yes. Not moving, or not mobile. Space to do it. No one to exercise with you. [Focus group 5—African Americans]</i></p>
Physical	Financial	Emotional	Environmental																						
Joint stiffness	Transportation	Depression	Lack of parks																						
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<p><i>Theme 3: Motivators or prompters of exercise</i>                      Companionship/exercise with a buddy, to hear inspirational stories, personal trainers</p>	<p><i>I think the Work Buddy (WB). Someone who could go with you as a buddy all the time. Someone, when you was lacking, they would encourage you to go, and vice versa. When they them days, you could put on the buddy role that's calling them to get up and go. "I'll be there in five minutes," "Don't disappoint me," that type of situation. [Focus group 6—African Americans]</i></p>																								
<p><i>Theme 4: Benefits of physical activity and exercise</i>                      More energy, stress relief, mobility, weight management, mental alertness, longer life, remain independent longer, good mood, and improved emotional health</p>	<p><i>It could have an impact on my future. It will make you a better person. You just enjoy your life more. I bet none of you all going to be around us old people like that, but it's the truth. It's true, yeah. It's true. It's good for everything, good for your health. It makes you strong. Yes, indeed. That is the joy of living. That is what it's all about. [Focus group 7—African Americans]</i></p>																								

<sup>a</sup>The themes in this table identified commonly held perceptions, opinions, attitudes, and beliefs held by these older adults.

## Discussion

Participants in this study affirmed what has been reported in the literature regarding barriers and motivators to physical activity and exercise in older adults. This study focused exclusively on urban-community-residing adults who were volunteers in the Senior Companion and Respite Aid programs. These programs are managed by the Institute of Gerontology at the University of the District of Columbia. This research team conducted several sessions to evaluate themes that

became apparent across all focus groups until a saturation point was reached where no new themes were evident.

The preferred activity noted across all focus groups was dance and the main barrier was fixed or limited income. Motivators, and benefits, included prolonged life, more energy, and a stronger body were the main benefits from physical activity and exercises. Finally, each focus group noted that an increase in community centers with a variety of classes especially dance and having a work buddy to exercise with would increase the likelihood of urban older adults engaging in more

physical activity and exercise. The older adults further noted that community centers in safe neighborhoods would further increase their feeling of safety in neighborhoods.

The results of these focus groups identified three issues related to barriers: lack of time, injury, and lack of resources. However, social influence, lack of energy, lack of willpower, fear of injury, lack of skills, boredom, inconvenience, weather, lifestyle changes, travel, illness, and overtraining, made up the rest of the combined list of barriers to physical activity and exercise. Evaluating the individual perspective on barriers to physical activity and exercise through an ecological lens, Cerin et al<sup>19</sup> found that barriers such as lack of time and motivation were related to the level of leisure-time physical activity, while lack of motivation, poor health, and lack of facilities resulted in nonparticipation in leisure-time physical activity.

The investigators in this study draw similarities to that of Cerin et al<sup>19</sup> in that personal, social, and environmental influences can contribute to perceived barriers of leisure-time physical activity. Data from these focus groups support these findings. On the other hand, Crombie et al<sup>20</sup> noted in their study that older adult respondent perceived determinants of physical activity disbelieved that exercise could lengthen their life and meeting new people could prove beneficial. The participants in this current study disagreed and found exercise to be beneficial and attributed physical activity and exercise with longevity.

There is no shortage of current evidence of the barriers to and motivators for physical activity and exercise among older adults; however, there is a growing interest in understanding the barriers and motivators of older adults who live in cities. The investigators of this current study conclude that this research adds to the understanding of the perceptions, opinions, beliefs, and attitudes regarding physical activity and exercise in older adults in Washington, DC.

### Limitations

As with any research involving human participants, there are limitations. We conclude that the main limitation of this study were the volunteers themselves. This group is an already active member of their community by providing volunteer services for other older homebound seniors in Washington, DC; these older adults may have more awareness of this topic. The current Senior Companion and Respite Aid programs require monthly participation in educational workshops that require participants to come to the university, which facilitates social cohesiveness among group members. Future research should involve seniors who are not members of a structured program to determine if there are similarities in responses to barriers and motivators for physical activity and exercise.

### Conclusion

This research study examined the perceptions, opinions, beliefs, and attitudes regarding physical activity and

exercise in older adults in Washington, DC, a strictly urban environment. We asked the question *What are the motivators to, barriers of, and benefits derived from engaging in physical activity and exercise?* We believe this study provided some base line data for what these urban-residing older adults discussed as reasons for participating in or not in physical activity and exercise. Because urban environments have different challenges than rural environments, it was important to understand older adults who were long-time residents.

The short survey given at the beginning of the focus groups asked the older adult to list their health conditions and as expected the top 5 health conditions included (1) arthritis 46%, (2) high blood pressure 71%, (3) high cholesterol 45%, and (4) diabetes 31%, and (5) knee issues 31%. These findings were similar to current research on older adults. The results of this current research will assist us in making recommendations to policymakers on the types of programs for older adults that will increase physical activity and exercise for local citizens with particular emphasis on environmental factors. These interventions are more likely to increase older adults' ability to remain in their communities and to improve their overall health and well-being.

### Declaration of Conflicting Interests

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