

Active aging: retrofitting housing and the environment for older African immigrant adults

by

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A THESIS

submitted in partial fulfillment of the requirements for the degree

MASTER OF SCIENCE

Department of Architecture
College of Architecture, Planning, and Design

KANSAS STATE UNIVERSITY

Manhattan, Kansas

2023

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Abstract

This comprehensive research explores the multifaceted relationship between housing environments and active aging among African immigrant older adults residing in the south side of Chicago. With a focus on promoting physical activity and improving the quality of life, this study delves into the perspectives, challenges, and opportunities faced by this demographic group in their residences and environment. The study's foundation lies in a detailed review of existing literature investigating the impact of housing designs on the health and well-being of older adults. Various factors influencing physical activity among older African immigrants are meticulously examined, including housing affordability, mobility options, social elements, access to community services, and communication strategies.

The research employs a robust methodology, including interviews and observations to collect firsthand insights from African immigrants aged 50 and above. The participants' experiences are analyzed through the lens of active aging measures, encompassing housing, interaction with outdoor spaces, social participation, transportation, respect, social inclusion, communication, community support, health services, and civic participation. These measures serve as a framework, illuminating the intricate interplay between housing environments and the active aging process.

A significant portion of the study concentrates on the housing challenges faced by the participants. Affordability emerges as a crucial concern, shaping their choices and opportunities. The research underscores the importance of diverse and innovative housing options across income levels, integrating age-friendly features and universal design principles. Additionally, the study highlights the significance of suitable, affordable, and safe public transportation, emphasizing the need for connectivity with key destinations to facilitate mobility.

Furthermore, the study delves into the social aspects of active aging, emphasizing social inclusion, intergenerational interactions, and opportunities for participation and employment within the community. It explores the role of community activities and volunteering in fostering social capital and combatting social exclusion among African immigrant older adults.

The findings of this study carry significant implications for policymakers, urban planners, and community developers. By understanding the unique challenges faced by African immigrant older adults, tailored interventions can be designed to create age-friendly housing environments that promote physical activity, social engagement, and overall well-being. This research not only offers significant contributions to the field of gerontology but also advocates for inclusive and culturally sensitive approaches to enhance the active aging experience for diverse immigrant populations.

In conclusion, this study illuminates the complex relationship between housing environments and active aging among African immigrant older adults. By addressing the specific needs and challenges faced by this demographic group, this research lays the foundation for informed and targeted strategies. These strategies empower older immigrants to lead active, fulfilling lives in their adopted communities, marking a pivotal step toward a more inclusive and supportive aging society.

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Acknowledgements

To my esteemed committee members, I extend my heartfelt gratitude for your unwavering support throughout this journey.

Prof. Todd Gabbard, your exceptional leadership and guidance have left a lasting impact on my academic pursuit. I am sincerely grateful for your support, guidance, mentorship, and dedication which have been invaluable throughout my academic journey. Your willingness to go above and beyond to support your students, both professionally and personally, sets a remarkable standard. Your belief in my potential and your continuous encouragement have been instrumental in shaping my educational path and professional growth. I feel blessed and honored to have had the privilege of learning under your guidance.

To my beloved family, your endless love, prayers, and unwavering support have been the cornerstone of my success. You are my most cherished treasures, and I am forever thankful for your presence in my life.

To God alone be all glory, honor, and adoration. Amen.

Dedication

This study is dedicated to the African immigrant older adults whose invaluable experiences and insights have significantly contributed to the findings. Their willingness to share has immensely enriched this study, expanding our knowledge base aimed at enhancing housing and environmental conditions for active aging among older adults in the United States.

Chapter 1 - Introduction

In the bustling neighborhoods of Chicago's South Side, amidst the amalgamation of diverse cultures and stories, lies a narrative often overlooked—the compelling tale of African immigrant older adults striving for active and fulfilling lives. The experiences, challenges, and aspirations of African immigrant older adults in this vibrant community illuminate a critical societal concern: the intersection of housing, active aging, and the overall quality of life.

Within the tapestry of this urban landscape, housing stands as a pivotal cornerstone, shaping not only physical spaces but also the aspirations, well-being, and experiences of its residents. Against the backdrop of cultural diversity, the nexus between housing, active aging, and the overall quality of life for African immigrant older adults becomes a subject of profound importance and scholarly intrigue. Within this tapestry of cultures lies a wealth of knowledge waiting to be unraveled—a knowledge that not only shapes policies but fosters inclusivity, understanding, and a deeper sense of community. African immigrant older adults, akin to immigrants from various backgrounds, arrive with a rich tapestry of traditions, resilience, and aspirations as they embrace a new homeland (Martinez et al., 2021). However, as they age, their challenges, particularly concerning housing and active aging, become increasingly complex. Many studies lately have associated deterioration in health and functioning capacity with this group (Horlyck-Romanovsky et al. 2019; Hamilton and Hagos 2020).

Besides, active aging is a concept that has demonstrated its potential to improve human behavior by prolonging deterioration in health and promoting healthy living (WHO 2002; Foster & Walker 2015). The concept of active aging, as defined by the World Health Organization (2002), goes beyond mere physical activity; it embodies a holistic approach encompassing social engagement,

health, and overall well-being. While the active aging concept may appear beneficial for some, it may not be as obvious for others, such as immigrants of color who could benefit.

Statement of the Problem

African immigrants' health is typically aggregated with African Americans or Afro-Caribbean (Commodore-Mensah et al. 2018a; Boise et al. 2013), despite ethnic differences across these subgroups (Sewali et al. 2015). The health of African immigrants remains largely understudied, and programs targeted at improving the health of this population are sparse (Commodore-Mensah et al. 2016; Omenka, Watson, and Hendrie 2020). Data from the National Health Interview Survey (NHIS) suggest that more than a quarter (28.8%) of African immigrants have hypertension, and more recent studies have revealed continuous increase in this number (Commodore-Mensah et al. 2018b; Turkson-Ocran et al. 2020; Ogungbe et al. 2021). African immigrants have unique health and healthcare needs, and yet, they face challenges that include obtaining health insurance, understanding healthcare services, and communicating with healthcare providers (Sofolahan-Oladeinde et al. 2014).

Studies show that the housing characteristics of where African immigrants live may be connected to the health issues (Oswald et al. 2003). They mostly live in housing environments with limited access to community centers, recreational facilities, and safe and accessible pedestrian and bike routes, hindering active aging (Agyemang et al. 2009; Begun et al. 2018). Additionally, they may lack the knowledge or resources to navigate their neighborhoods or find safe places to engage in physical activity, which can make them feel disconnected from their communities and lack the social support necessary to adopt an active lifestyle (Medvene et al. 2016). Language barriers and

cultural differences can also make it challenging for them to connect with others in their communities and find social support for physical activity (Belza et al. 2004).

Furthermore, African immigrants often live in neighborhoods with higher levels of crime and violence, which can make it less safe to go outside and engage in physical activity (Baker et al. 2006; Larson et al. 2009). Fear of crime and violence has been shown to contribute to stress, which can lead to hypertension and other health issues (Giraldez-Garcia et al. 2013). These are speculative possibilities that could have resulted in the health degeneration of the African immigrant, especially among older adults.

Significance of the Study

This study holds immense significance in the realms of social sciences, urban planning, and public health. By unraveling the intricate interconnections between housing, active aging, and the quality of life among African immigrant older adults, this research contributes valuable knowledge that can inform policy reforms, urban design strategies, and community interventions. Moreover, it amplifies the voices of a community often marginalized in academic discourse, fostering a deeper understanding of their experiences and aspirations.

At its core, this study addresses disparities that persist in urban environments. By delving into the housing experiences of African immigrant older adults, it shows the challenges in accessibility, affordability, and quality. These insights are invaluable for policymakers and urban planners striving to create cities that embrace all inhabitants, regardless of their cultural background. The study becomes a beacon, guiding interventions that bridge the gap between marginalized communities and mainstream society.

One of the study's fundamental contributions lies in its emphasis on cultural sensitivity. By amplifying the voices of African immigrant older adults, the research creates a platform for dialogue—a dialogue that acknowledges cultural nuances, traditions, and expectations. In doing so, it lays the foundation for interventions rooted in empathy and understanding. Culturally sensitive approaches not only enhance the quality of life for older adults but also promote social harmony, fostering a sense of belonging and acceptance within the community (Joseph et al. 2017)

The significance of this study reverberates in the realm of policy reforms and urban planning strategies. As cities grapple with the challenges of an aging population, the experiences of African immigrant older adults offer invaluable insights. Policymakers can draw upon this research to implement age-friendly policies that cater to diverse cultural backgrounds. Urban planners, armed with a nuanced understanding of housing dynamics, can design spaces that promote active aging, social integration, and overall well-being. This is especially important when considering housing and location, as older adults often feel a strong attachment to these environments as an extension of themselves (Prieto-Flores et al. 2011; Rojo-Perez et al. 2016). For African immigrants and other people of color in the United States, environmental and social inequalities peculiar to their housing environment have a disproportionate impact on their physical health and performance (Hamilton & Hagos 2020).

Beyond statistics and policies, this study holds the power to empower communities. By shedding light on the challenges faced by African immigrant older adults, it validates their experiences, struggles, and triumphs. In acknowledging their narratives, the study fosters a sense of pride and resilience within the community. Empowered communities are not merely recipients of interventions; they become active participants, driving change from within (Christens 2012). This

empowerment can transcend the boundaries of study, creating a ripple effect that inspires future generations to advocate for their rights and well-being.

Ultimately, the significance of this study extends far beyond academic inquiry—it embodies a societal transformation. It challenges preconceived notions, dismantles stereotypes, and fosters empathy. In embracing the experiences of African immigrant older adults, society takes a collective step toward becoming more inclusive, compassionate, and just. This study becomes a catalyst for change—a change that transcends the realm of research papers and permeates the very fabric of communities, nurturing a future where every older adult, regardless of their cultural background, can age with dignity, respect, and a profound sense of belonging.

In essence, this study embarks on a profound journey—one that seeks not only to document challenges but also to illuminate pathways toward a more inclusive, age-friendly urban future. As we navigate the intricate tapestry of housing, culture, and active aging in the lives of African immigrant older adults, we embark on a collective endeavor to nurture dignity, resilience, and well-being within this vibrant community.

Purpose of study

The purpose of this comprehensive research endeavor is to unravel the intricate relationship between housing experiences, active aging, and the quality of life among African immigrant older adults residing in Chicago's South Side. This study embarks on a crucial exploration to understand the multifaceted challenges and unique opportunities faced by this demographic group concerning their housing environments.

Maintaining an active lifestyle is crucial for physical and mental health, especially as we age, to reduce the risk of a sedentary lifestyle. However, for African immigrant older adults in the United States, a sedentary lifestyle may be caused by numerous factors that are unique to individual circumstances. It is important to consider the relationship between active aging through physical activity and the behavior in space of African immigrant older adults who are disproportionately affected by environmental and social inequalities in the United States.

Central to the study's purpose is the cultivation of a culturally grounded understanding. By delving into the lived experiences, cultural nuances, and societal expectations of African immigrant older adults, the research aims to construct a comprehensive narrative. This narrative becomes the bedrock upon which culturally sensitive interventions can be built. Understanding how cultural backgrounds influence housing preferences, social interactions, and active lifestyle choices is pivotal. It serves as the cornerstone for developing interventions that resonate with the community on a profound level, fostering a sense of trust and engagement.

Another pivotal objective of this study is to inform the development of age-friendly interventions that are tailored to the unique needs of African immigrant older adults. Traditional approaches to active aging often overlook cultural specifics, leading to interventions that may not be inclusive or effective. This study seeks to bridge this gap by providing insights that can inform the design of housing policies, community programs, and social initiatives. These interventions go beyond mere physical spaces; they encompass a holistic approach that nurtures mental, social, and physical well-being.

Therefore, the overall aim of this study is to comprehensively investigate the relationship between housing environments, active aging, and the quality of life among African immigrant older adults

residing in Chicago's South Side. By delving into the intricate interplay of cultural backgrounds, housing experiences, and the unique challenges faced by this demographic group, the study seeks to inform the development of culturally sensitive and age-friendly interventions. These interventions are designed to enhance the active aging experience, foster well-being, and empower the African immigrant older adult community.

Research Question

This study aims to address the following research question:

Overall research question:

'How do housing environments influence the active aging experiences and overall quality of life among African immigrant older adults in Chicago's South Side, and what interventions can be developed to enhance their well-being and promote active aging within this demographic group?'

Sub questions:

- What are the individual characteristics of the African immigrants in the study area?
- What are the housing and environmental characteristics that the African immigrant older adults live in?
- What is the day-off routines and leisure activities practiced by African Immigrants in Chicago?
- What are the factors that motivate or discourage African immigrants' older adults from engaging in physical activity in their housing and environment?
- How can the housing and the environment be modified to promote active aging among African immigrants?

Chapter 2 – Literature Review

Introduction

The United States is becoming increasingly diverse, and understanding the health trajectories of immigrants is crucial to ensuring that all individuals can lead healthy and fulfilling lives. Upon arrival in the United States, new immigrants tend to have better health profiles than their native-born counterparts, but the health advantage narrows or disappears entirely as they age and spend more time in the United States compared to white and Asian immigrants (Horlyck-Romanovsky et al. 2019; Hamilton and Hagos 2020). African immigrants face numerous health challenges and barriers to healthcare access as they age in their communities. The built environment has been linked to their health degeneration, but there is little understanding of how these associations vary across different population groups and races (Lovasi et al. 2009; Kerr et al 2012).

Regular physical activity is crucial among the older adults for preventing and managing various health conditions such as obesity, diabetes, cardiovascular disease, certain cancers, and mental health disorders (Baffoe 2010; Chaudhury et al. 2012; Hamilton & Hagos 2020). Inactiveness puts the older adults at a higher risk of falls and functional limitations and experience of lower quality of life compared to their active peers (Chaudhury et al. 2012; Kerr et al 2012). Although physical activity provides numerous health benefits, many older adults, particularly immigrants, tend to spend most of their day engaged in sedentary behaviors such as sitting, watching television, or working (Kerr et al 2012; Hamilton & Hagos 2020). As immigrants age, they tend to account for a greater share of the population, and understanding their health trajectories provides valuable insights into the future health of the entire U.S. population. The ethno-racial context within which immigrants integrate into American society might produce different patterns of health for

immigrants who share a racial status with marginalized U.S.-born minorities (Hamilton & Hagos 2020). Therefore, designing communities that support physical activity can play a strong role in influencing physical activity for older adult African immigrants.

This literature review aims to identify the major contributors to health degeneration among immigrants, with a specific focus on the African immigrant population, and explore factors that can inform the rebuilding of housing environment towards active living. By prioritizing equitable access to healthcare and resources and understanding the factors that contribute to health degeneration among immigrants, we can improve the future health of the entire U.S. population.

The characteristics of African American neighborhoods

The redlining practices prevalent in the 20th century have mostly affected African American housing environments (Freund, 2007). The housing environment with high concentrations of African Americans were designated as hazardous, and thus deemed ineligible for mortgage loans or insurance coverage (Hillier, 2003; Freund, 2007). These practices deprived African Americans of wealth, homeownership opportunities, and led to a systemic and pervasive wealth gap and health disparities in African American communities (Johnson, 2010). Those communities became home for low-income dwellers, high-crime activities, and limited access to healthcare services (Baker et al., 2006; Larson et al., 2009). All these characteristics led to limited access to resources and opportunities, including quality housing, education, and healthcare and adversely leading to poor health outcomes as shown in figure 1. As a result, African Americans have experienced worse health outcomes compared to other racial and ethnic groups in the US (National Center for Health Statistics [NCHS] 2011; Centers for Disease Control [CDC] 2012).

African immigrants who have settled in historically redlined areas face similar social and economic challenges as American born Black people (Holmes et al. 2015; Chang et al. 2017).

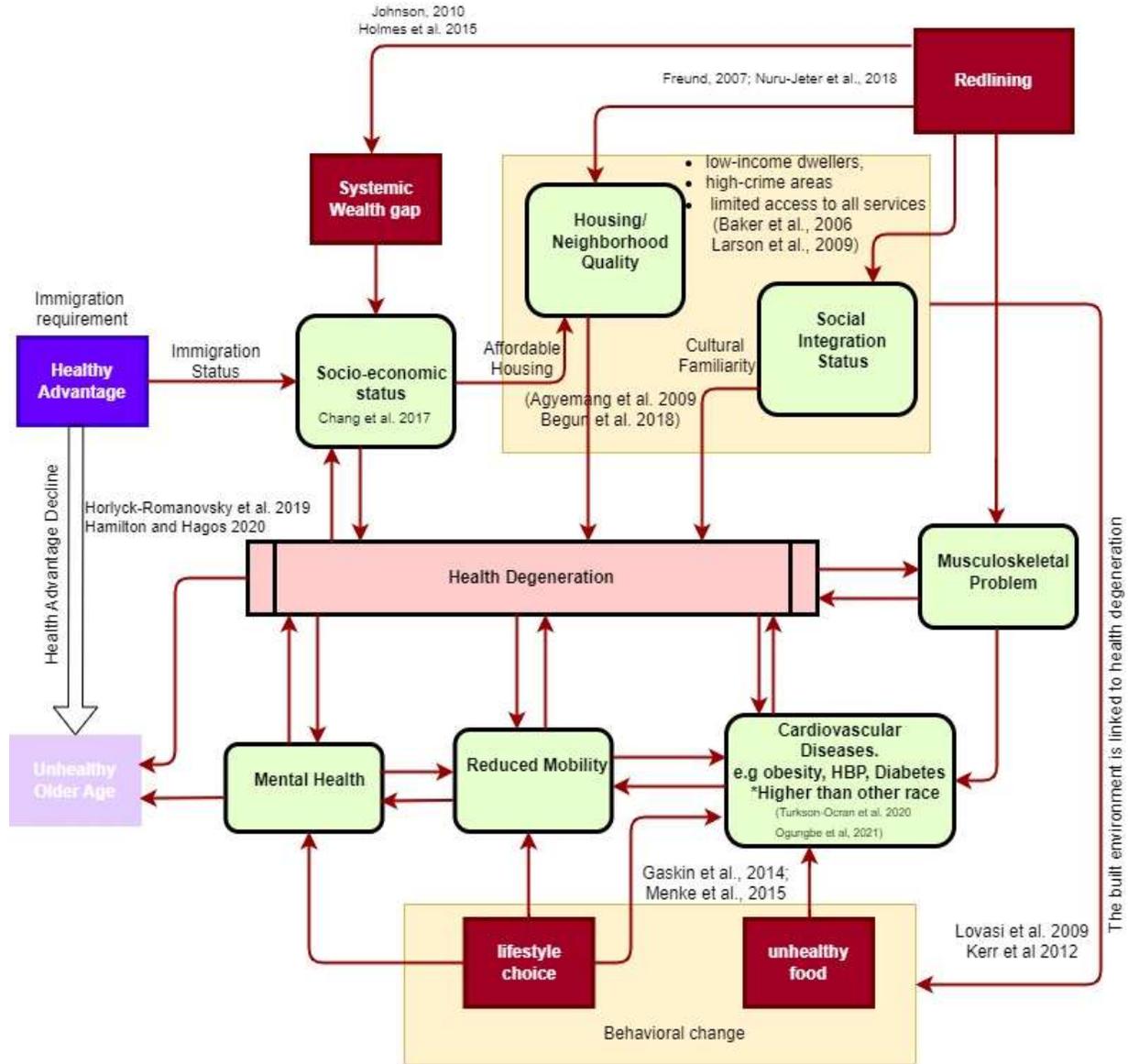


Figure 1: Showing the contributory factors to poor health outcome among immigrants.

Source: Researcher's field work, 2023

Their socioeconomic disadvantage made them live in low-income, high-crime areas with limited access to services and resources as they search for culturally familiar neighborhoods and affordable housing (Agyemang et al. 2009; Begun et al. 2018). The wealth gap created by redlining practices limits their access to quality healthcare and social services as they experience employment discrimination and limited access to affordable housing, which has made it difficult to save for retirement and maintain economic stability in their later years (Nuru-Jeter et al., 2018).

Since the 1980s, the Black immigrant population has increased almost fivefold (Anderson and Lopez 2018). African immigrants, among this Black population now account for 39% of the overall foreign born Black population in the U.S., an increase from 24% in 2000 (Anderson and Lopez 2018; Anderson 2017). According to the 2008–2012 American Community Survey conducted by the U.S. Census Bureau, of the 1.6 million foreign-born from Africa in the U.S., about 36% were from West Africa, 29% from Eastern Africa, and 17% from Northern Africa (Gambino, Trevelyan, and Fitzwater 2012). Yet, there is little research on the impact of redlining housing environment on African immigrants, who now make up a significant portion of the US immigrant population. Given the benefits associated with aging in place against the challenges faced in the housing environment, the question arises as to how Black communities can be retrofitted to offer a better living environment for African immigrant older adults.

The housing environment and the older adults

Old people spend most of their time at home, and the home environment plays a crucial role in their participation (Jumadi et al. 2019). However, most available literature concerning people aged 65 years and above focuses on nursing homes, day care centers, and similar settings but few considers the older adults in the home environment (Haak et al. 2007). So, there is need for more

studies that seek to examine how old people living alone at home experience participation (Haak et al. 2007; Jumadi et al. 2019).

Engagement in activities and social participation is essential in maintaining functional ability among older adults, especially those between 75 and 80 years. However, the home environment can sometimes function as a barrier to activity. Staff in nursing homes play a significant role in providing suitable activities for residents, but motivation and encouragement to engage in activities are not often present in the home environment for older people living alone (Haak et al. 2007).

Ding and Gebel (2012) posits that having required facilities for all residents, prioritization of safety and security, disability features, and housing location are essential elements that influence active and independent living among the elderly in their neighborhood. Also, physical attributes such as smaller housing, accessibility, transportation, adequate facilities, disability features design, and location of housing influence active aging (Haak et al. 2007). Similarly, considering residents' special needs, such as accessibility, transportation, safety and security, elderly-friendly facilities, and community centers can help to achieve suitable housing environment (Haak et al. 2007). Jumadi and colleagues (2019) shared the essential to consider the physical attributes of the housing, such as large bathroom space, handrails, and non-slip floors, to support their inability someday. In addition, they also pointed out that older adults may require the need to cater for their spiritual needs by providing privacy and close religious space within the housing community.

The home environment plays a crucial role in the participation of old people, particularly those living alone. Therefore, designing suitable housing and environment by considering their special needs and physical attributes is essential in promoting their active and independent living.

The concept of Active aging

According to the World Health Organization (WHO), active ageing (AA) is a process that aims to enhance opportunities for health, participation, lifelong learning, and safety to improve the quality of life (QoL) as people age (WHO 2002). The level of AA is determined by a range of factors such as social, economic, personal, health, behavioral, and physical environment, which all interact to shape the level of AA for individuals and populations (see figure 2). Participation is a critical aspect of AA, extending beyond productive activities and including social, civic, recreational, cultural, intellectual, or spiritual pursuits that bring meaning, fulfillment, and a sense of belonging (Prieto-Flores et al. 2011; Rojo-Perez et al. 2016). Maintaining a broad commitment to participation positively impacts various aspects of life, including social or community inclusion, health, and participation in societal decision-making, empowering individuals.



Figure 2: Showing the components of active aging.
Source: WHO, 2002

Deteriorations in health and functioning capacity have a greater impact on older people, potentially affecting their daily lives, social interactions, and active participation in the residential environment (Prieto-Flores et al. 2021). Housing and the surrounding area are crucial, as older people tend to feel the most attachment to these environments, viewing them as an extension of themselves (Vanzella-Yang 2019). The geographical context in which all determinants of AA are interrelated is shaped by a combination of physical living spaces and personal circumstances. The World Health Organization (WHO) promotes Global Age-Friendly Cities in response to population aging, its concentration in urban areas, and the need for communities to address environmental and social factors contributing to active and healthy aging and QoL (WHO 2007). An age-friendly city is one that supports and enables active ageing by considering the capacities, needs, preferences, decisions, lifestyles, and risks of vulnerability of its population (Chau & Jamei, 2021). The idea of age-friendly communities and cities is organized around eight fundamental areas, including outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community support and health services (WHO 2007; Prieto-Flores et al. 2021). Berhanemeskel (2017) studies summarize the main features of these elements, which have been crucial in shaping policies related to active aging (Appendix A). However, few studies have explored how this concept can be translated into practice and none has considered the minority immigrants. The focus has been on enabling older people to remain in their place of residence and promoting their social and community inclusion, mobility, independence, protection, and safety. This idea aligns with the determinants of active ageing, as proposed by the WHO (2002).

Age friendly community with older people provides accessible and inclusive social environments in which older adults can enjoy good health, actively participate, and live in safety (Plouffe and

Kalache 2010). This is specifically underpinned by the promotion of active ageing, which serves as a model to guide the development of communities that are friendly for the general population, particularly for older people and other vulnerable groups. The Global Strategy and Action Plan on Aging and Health, as well as the 2030 Agenda for Sustainable Development Goals, emphasize the need to create environments that are suitable for older adults. Ageing is present in 15 of the 17 sustainable development goals, especially in relation to Sustainable Cities and Communities (WHO 2017). The housing environment, which includes housing and the neighborhood, plays a crucial role in the daily life of older people.

Access to services and green spaces, safety, traffic conditions, pedestrian infrastructure, and pollution are factors that influence older adults' participation in physical, social, and everyday activities (Annear et al. 2014). An inclusive housing environment is necessary to promote increased feelings of safety and self-confidence, more frequent use of urban spaces, and greater participation by the older population in community life (Afacan 2013). Suitable residential environments promote independence and wellbeing among older people, making it easier for them to access community facilities and services. Housing and the environment in which it is located must be adapted to the changes in health and functional capacity that occur at advanced ages to promote activities, participation, and social inclusion among older people (Sixsmith et al. 2014). Identifying barriers to mobility is significant for preventing loneliness and facilitating the inclusion of older people in their residential environment (Rantakokko et al. 2014). This study is considering these propelling factors to engage African immigrants and gain a better understanding of their lived experiences in the community.

Active aging and the physical characteristics of housing environment

Recent studies have highlighted the significant association between physical characteristics of the housing environment and physical activity, as well as health outcomes (figure 3). Elsawahli et al. (2017) found that the housing environment (both the house and neighborhood) determines inhabitants' behaviors and is a significant contributor to health problems related to physical inactivity. However, the characteristics of the African American housing environment have contributed to the growing prevalence of obesity and overweight among both children and adults due to factors such as cul-de-sacs, lack of parks, high-speed traffic, and automobile-focused transport (Baffoe 2010; Jumadi et al. 2019).

For instance, neighborhood characteristics such as facilitators to walking, barriers to walking, convenience, accessibility, permeability, maintenance, and safety, promote physical activity and social interaction, especially among older adults (Chaudhury et al. 2012). Similarly, other characteristics such as sidewalks, streetlights, interconnectivity of streets, population density, and land-use mix, can encourage physical activity and reduce obesity risk (Baffoe 2010; Chaudhury et al. 2012; Dwicaksono et al. 2018; Jumadi et al. 2019). However, studies have found that lack of these factors have hindered participants from being physically active in the African American housing environment (Henderson & Ainsworth 2003; Belza et al. 2004; Van Duyn et al. 2007). Similarly, lack of time, literacy problems, weather and environment, unsafe neighborhoods, fear of crime, program costs, inadequate availability, frequency, reliability of affordable transportation, and lack of access to places to engage in physical activity were common barriers to physical activity for most immigrants of color, including African immigrants (Henderson & Ainsworth 2003; Belza et al. 2004; Van Duyn et al. 2007).

Older adults' quality of life can improve by enhancing street connectivity and access to daily necessities, recreational activities, and other amenities, leading to increased social interaction and physical activity levels (Christman et al. 2020). These findings have influenced the decisions of urban planning and design professionals, emphasizing the need to promote compact, mixed-use development with a prominent level of connectivity and access to public transportation to enhance physical activity and health outcomes (Ewing et al. 2003; Chaudhury et al. 2012). However, the idea lacks integration of salient factors such as ethnic and cultural beliefs of diverse racial users about active aging. Addressing environmental barriers and providing access to appropriate facilities is critical to promoting physical activity, particularly for older African immigrants facing health challenges.

Active aging and the social barriers in the housing environment

Social design strategies, such as creating communal spaces and designing housing that fosters social interaction, is vital in promoting community engagement and social connections among older adults, while reducing social isolation (Lopez and Hynes 2006; Alidoust et al. 2020). For instance, Assari and colleagues (2016) found that social challenges such as fear of violence in the neighborhood predicted active participation among female African American youth and contributed to a lack of engagement in outdoor physical activities. Also, neighborhood poverty correlated with poor social environments, including higher crime rates, low aesthetic quality, poor social cohesion, and social capital, and increased residential segregation in the African American neighborhood (Suglia et al. 2016; Alidoust et al. 2020). These factors are associated with obesity, and the effect of neighborhood poverty on obesity may mediate other social characteristics of the neighborhood social environment (Suglia et al. 2016).

The growing population of African immigrants is struggling with social isolation, which has disenfranchised them from accessing good stable jobs and good income, hindering their integration into various aspects of society (Baffoe 2010). African immigrants experience marginalization and social exclusion, resulting in limited access to full and equal participation in society. For example, lower-income African immigrants had higher odds of obesity resulting from the peculiarity of their housing environment in the US (Horlyck-Romanovsky et al. 2019). Additionally, language barriers, social isolation, and limited access to resources and services have contributed to increased sedentary behavior, particularly among older adults from immigrant communities (Belza et al. 2004). Furthermore, family and friend relationships are crucial sources of social support and social networks for older adults (Nilsen et al., 2018). An older person with limited social networks may experience higher social isolation (Medvene et al. 2016). For African immigrants, building family for social connectivity may involve facilities that encourage racial social activities. Thus, it is essential to recognize and address these barriers to promote physical activity and overall health in older adults from immigrant.

Addressing the social challenges faced by the African immigrant population will facilitate their integration into American society. Social inclusion, which provides access to full and equal participation in the economic, social, political, and cultural life in the community, is essential to an age-friendly community (Gonyea & Hudson, 2015). Therefore, it is crucial to conduct more holistic studies and interventions that address the interlinked factors of poverty, income inequality, racial segregation, and economic isolation (Suglia et al. 2016; Assari et al. 2016; Alidoust et al. 2020). Some studies have suggested interventions including community-based strategies that provide safe places for physical activity or increased green spaces in high-risk areas (Baffoe 2010; Jumadi et al. 2019; Alidoust et al. 2020).

Active aging and the cultural barriers in the housing environment

Cultural factors have a significant impact on the needs of older African immigrants, affecting their physical and social well-being. While regional cultural contexts vary, they all influence how people's homes are set up and their beliefs, values, and actions. It is crucial to acknowledge that ethnicity and cultural beliefs play a significant role in shaping how individuals behave and interact with their surroundings as they age. Hassen and Kaufman (2016) have demonstrated that active aging among older adults cannot be attributed solely to neighborhood features but also to cultural beliefs and ethnic inferences. For instance, some cultures believe that the responsibility of caring for older adults falls predominantly on family members (Idorenyin Imoh & Charity 2023) and this cultural belief can influence the level of support and encouragement older adults receive from their families, directly affecting their engagement in social and physical activities. Also, Certain ethnic communities adhere to traditional diets and health practices that promote active aging. For instance, Mediterranean diets rich in fruits, vegetables, and olive oil have been linked to better health outcomes in older adults from Mediterranean countries, showcasing the cultural impact on active aging (Bonaccio et al. 2013). This is especially relevant when striving to integrate racially diverse older adults into contemporary urban communities in the United States.

The African American population, to which African immigrants are subsumed, has grappled with low levels of physical activity, often hindered by cultural barriers (Joseph et al., 2016). African communities, rich in institutional heritage, have historically evolved to cater to collective needs, placing immense value on community bonds (McDonald, 2010; Wanasika et al., 2011). Studies have indicated that African immigrants prioritize cultural relevance when deciding to engage in physical activities (Ibe-Lamberts, 2016). In their endeavor to create a robust physical activity intervention framework tailored specifically for African American women, Joseph, and colleagues

(2016) incorporated elements of community engagement, cultural resonance, sociocultural norms, family dynamics, gender roles, and a life course perspective. This comprehensive approach emphasizes the crucial role of cultural significance in shaping interventions geared toward enhancing physical activity lifestyles. For culturally vibrant African immigrants, the absence of culturally tailored activities and facilities presents substantial challenges, fostering a sense of disconnection, isolation, and discomfort within multicultural environments (Ibe-Lamberts, 2016).

Understanding the cultural values, traditions, and lifestyle of older African immigrants is crucial for designing effective interventions to improve their well-being and quality of life. Culturally sensitive housing design, which accommodates multigenerational living and incorporates cultural practices and customs, can help promote active living by creating opportunities for social interaction and community engagement. However, cultural beliefs and practices can also present a significant barrier to active living for older African immigrants, especially when physical activity is not viewed as a part of daily life in the United States. More research is needed to explore specific cultural beliefs and practices that influence physical activity among this population, as well as the role of social isolation and discrimination in limiting opportunities for active living.

Study Area

The research took place in the South Side of Chicago, Illinois State (see figure 3). Historically, African immigrants have primarily settled in North Side neighborhoods like Uptown and Edgewater, where social service agencies cater to refugees from Ethiopia, Eritrea, and Somalia. Despite the growth of these communities, more recent arrivals from Senegal, Nigeria, Mali, and Ghana have opted to live on the South Side due to the lower cost of rent and housing prices.

As of 2023, Chicago is the largest city in Illinois and the third-largest city in the United States, with a population of 2,608,425 and a population density of 11,472 people per square mile (Chicago, Illinois Population 2023). The white population is in the northern part of the city, while the Black community is primarily located in the southern part of the city. The spatial distribution of race in Chicago is largely attributed to the city's historically racist housing policies that forced its black population to reside in the more affordable South Side.

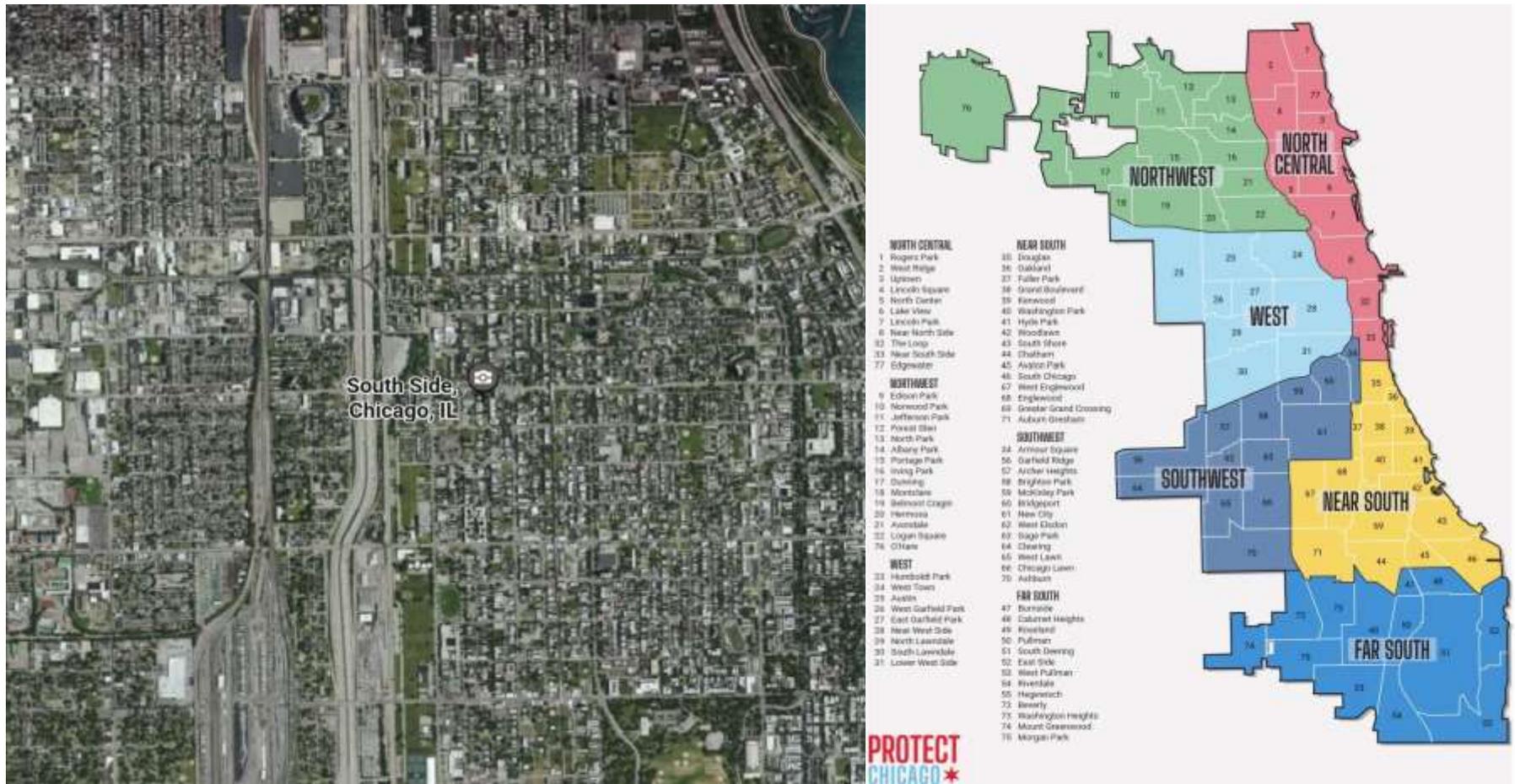


Figure 3: Showing South-Side Chicago, IL.

Source: <https://www.bing.com/maps>

The Black or African American population in Chicago constitutes 29.22% (figure 4) of the total population, including those who identify as such. Therefore, it may be challenging to determine the exact number of African immigrants in the study area. Nevertheless, this research will concentrate on the South Side of the city, where most of the Black population resides, as evidenced by previous studies.

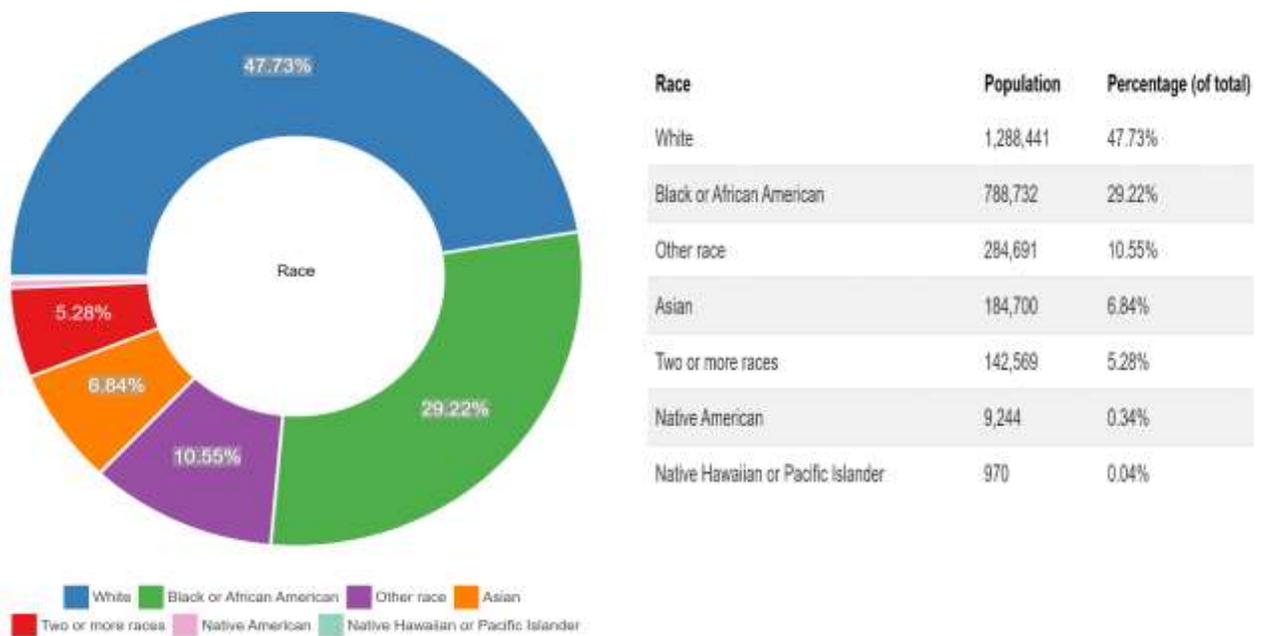


Figure 4: Showing the population by race in Chicago.

Source: [Chicago, Illinois Population 2023 \(worldpopulationreview.com\)](https://www.worldpopulationreview.com/cities-profile/chicago-illinois-population-2023)

Study Participants

The eligibility ages for retirement benefits, social security benefits, and healthcare systems are typically determined at the national level, and these thresholds can vary significantly from one country to another (Sargent-Cox et al., 2012). In the context of the United States, the age for full retirement benefits from the Social Security program was adjusted from 66 to 67 for individuals born in 1960 or later (Mermin, Johnson, & Murphy, 2007; Sargent-Cox et al., 2012). Conversely,

the eligibility age for Medicare (a government-funded health insurance program) remains at 65 (Social Security Administration, 2023). These age thresholds were employed in categorizing the participants interviewed in this study into three distinct aging stages, as defined for the purposes of this research: pre-retirement (ages 50-60), early retirement (ages 60-70), and advanced retirement (ages 70 and above). The unique nature of the collected data led us to divide the advanced retirement category into two distinct groups: ages 70-79 and 80 and above.

Chapter 3 - Research Methodology

The objective of this study was to gather information from older African immigrant adults who have experienced housing environments in the United States to develop a theory that explains the underlying processes and social structures that shape their experiences. This was intended with a mind to understand why their health declines, as previous studies have linked their health deterioration to the structure of their housing environments (Holmes et al. 2015; Chang et al. 2017). Therefore, qualitative methodology employing a grounded theory approach was used for this study. This methodological approach is particularly useful when exploring complex and multifaceted phenomena, such as the factors that influence active aging in a particular population group.

In the context of this research study, a grounded theory approach (Glaser & Strauss 1967) was used to gather and analyze qualitative interview data gathered from older African immigrants (50+) living in various housing environments and neighborhoods in the south side of Chicago. By analyzing the data through an iterative process of coding and categorizing, patterns and themes were identified, and a theoretical framework was developed to explain the factors that affect the active aging of this population.

Through this process, the grounded theory approach provides insight into the unique experiences of older African immigrants (50+) in their housing environment and neighborhood, identifying factors that support and hinder their ability to age actively.

Procedures

To collect interview data, the initial stage involves designing an interview guide or protocol that outlines the questions to be asked during the interview. This ensures that all participants are asked the same questions in a consistent manner. The interview guide consisting of eight (8) numbers of open-ended questions (see appendix B) was designed to be flexible enough to allow for follow-up questions and discussion.

Recruitment was primarily conducted through referrals, as well as through visits to potential areas of social or religious gathering where the targeted population can be found. To ensure that participants fully understand the study, prior discussions were conducted, and formal request presented (see Appendix C). Participants were provided with a schedule for the interview date and location and were included in the study after signing the informed consent. The criteria for participant selection were based on the research questions and the criteria for inclusion in the study. This recruitment procedure was followed for both referred participants and those found through social or religious gatherings.

On the date and location selected for the interview, participants were reminded of the study's purpose and the procedures involved. This includes explaining the nature of the interview, the rights of the participant, the interview time frame, and the potential risks and benefits of the research findings. To ensure that participants fully understand and consent to their involvement in the study, they were required to sign an informed consent form before the interviews were conducted.

Throughout the interview process, adherence to the interview guide was maintained, with participants encouraged to provide comprehensive responses to the questions posed. Participants

were specifically prompted to describe their housing interior layouts, with the researcher sketching the layouts based on their descriptions. Additionally, to enhance the visual comprehension of the participants' points, their residential environments were accessed using Google Earth, providing valuable visual context during the discussions. With each of the participants' permission, the interview was recorded using both the researcher's notes and a recording device. Following the interview, the researcher appreciated the participation and politely asked if they could refer other potential participants to the study.

Participants' recruitment

Due to the difficulty in identifying the population size, the study employed the use of non-probability sampling method to select participants for this study. The study focused on the south side of Chicago, where African immigrants are known to be concentrated. Convenient and snowball sampling method was employed to select 30 participants who are African immigrant older adults. The researcher ensured that the study includes participants from three stages of the aging process: age towards retirement (50-60), early retirement age (60-70), and deep retirement age (70 and above) to examine the potential changes in physical activity patterns that may occur as African immigrant older adults age.

Snowball sampling involves leveraging current participants to recruit additional participants for the study through a referral method. Initially, recruitment was intended to be facilitated with the assistance of the United African Organization, a community-based organization dedicated to promoting social and economic justice, civic participation, and empowerment of African immigrants and refugees in Illinois, specifically reaching out to African immigrants in Chicago (<https://uniteafricans.org>). However, the response rate to the email sent out to the organization's

suggested contacts was limited, with only three participants expressing interest. Subsequently, I became a member of a religious organization in the study area, and my presence was warmly welcomed by fellow members from Africa. This facilitated interactions, during which they inquired about my background and purpose in the study area. Capitalizing on this opportunity, I introduced myself and the study's objectives.

Upon learning about my research, the head pastor and two other leaders in the church, all falling within the age range of my study, requested to be interviewed first before I engaged with other members. The group interview was conducted, with some members responding in unison. In the initial interview with the pastor and other church leaders, a wide range of questions, extending beyond those initially outlined in the interview guide, were posed. Careful attention was paid to the responses that aligned with the focus of this study. Subsequently, a refined set of questions was prepared for the main interviews.

The lead pastor provided a list of members falling within the specified age group for this study whom I contacted to schedule interview dates and times. Before the interviews, the research details were reiterated to the participants. Additionally, a thorough briefing was conducted, outlining the interview procedure, discussing the study's scope and objectives, and addressing the informed consent process (refer to Appendices D & E). The methodology design for this study has also been used in other similar studies where the population is not known and cannot be easily reached (Jurkowski et al. 2010; Ellard-Gray et al. 2015; Ogungbe et al. 2021), has been employed in this research.

Ethics (IRB)

Given that this study involves human subjects and the oral responses of the participant needed to be recorded, necessitate the need to prioritize participant welfare and rights throughout the research process. To this end, several measures were taken to ensure that the collection of data is done in an ethical and responsible manner. Firstly, a thorough briefing about the procedures involved in the data collection process was provided to each participant during recruitment and before the interview commenced. This includes explaining that their voices will be recorded, and that the information recorded may be published. After assuring them that the information they provide will be kept confidential, they voluntarily agreed to participate. However, the researcher assures that participants sign a consent form before the interviews are conducted. The interviews were conducted at a secure and convenient location for the participant, ensuring that there is no external interference during the session.

Before embarking on the field of collecting data, approval from the Institutional Review Board was sought to assure that the study adheres to ethical guidelines and codes of conduct for research involving human subjects. All study protocols were approved by Kansas State University Institutional Review Board (KSU- #IRB-11671).

Data collection

To better understand the respondents' living condition, several probing questions about their work status and tenure status were asked. Likewise, to understand their socio-economic status, they were asked to rank what they spend their monthly income on and what is left after sorting out their financial commitment. These questions were asked to better understand the individual factors that influence choice of housing and location of residence. Some of these inquiries were structured as

closed-ended questions, such as inquiring whether participants currently own or rent their residence and where else they have lived since arriving in Chicago. Other inquiries were open-ended, encouraging participants to provide detailed responses, such as describing their work patterns or explaining the process they went through when purchasing their homes.

Additionally, participants were queried about the attributes of their housing in the study area. The information in this section was obtained from participants' responses to probing questions about the characteristics of their housing. This data was further supported with pictures of the study area taken during the on-site observation by the researcher to validate the participants' descriptions, and document researcher's personal observations.

All interviews were conducted in a private room within the worship center building, with the consent of the participants and permission of the authority. The interviews were anticipated to last approximately one to one and a half hours (1-1.5 hours). In addition to the interviews, the participants visited the study area, and observational data regarding the housing and environmental characteristics were collected. The researcher analyzed the observational data using content analysis (Smith & Johnson 2019), while thematic analysis was employed for the interview surveys (Johnson & Brown 2020). The use of participants responses aided by visual sketches and google earth images and the researcher observation notes provide data triangulation (Lincoln & Guba, 1985) that validate the dataset in this study.

Tools

The interview guide, meticulously designed to align with the study objectives, served as the framework for guiding the interview discussions. Participants' responses were carefully captured using an audio voice recorder, supplemented by the researcher's notepad for additional notes.

Initially, the recorded interviews were transcribed using NVivo software. However, challenges arose due to varying accents and occasional use of local languages in between sentences by the participants, leading to errors in the transcription. To ensure accuracy, the researcher carefully listened to each interview, manually correcting all transcription errors. Subsequently, the statements were systematically coded into meaningful units and themes for analysis.

Methods of Data Analysis

The data analysis for this study adheres to an inductive approach, employing a bottom-up methodology closely tied to the dataset. A rigorous and systematic investigation of the data was conducted, guided by ontological research questions. The study followed a thematic analysis approach, encompassing six distinct phases as delineated by Braun and Clarke (2006) (see Figure 5).

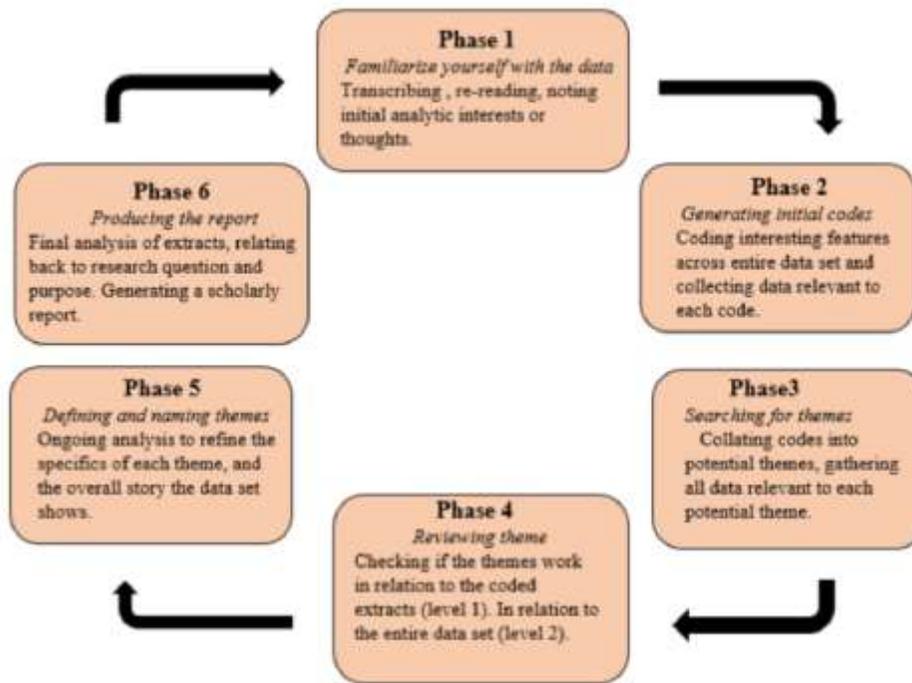


Figure 5: Showing the six stages of the thematic analysis adopted.

Source: Braun & Clarke, 2006

In the first cycle of coding, a thorough examination of the interviews was undertaken to identify common keywords and phrases among the participants. The necessity to rectify errors in the initial transcription generated by the software compelled the researcher to repeatedly listen to the recorded interviews, correcting the initial transcriptions and highlighting pertinent sentences or phrases relevant to the research questions. This process led to the identification of 75 initial codes. As these codes were provisional, efforts were made to merge synonymous codes. Also, the codes were organized based on their semantic relationships, allowing the researcher to identify phrases coded differently but carrying the same meaning. For instance, codes such as ‘inadequate lighting’ and ‘the interior space is dark,’ both conveying unsatisfactory interior illuminations, were merged. Following this step resulted in a reduction to 33 codes before entering the second cycle of coding.

In the second cycle of coding, the pattern coding technique was employed. Pattern coding proved invaluable after the initial coding, as it identified similarly coded data, allowing for further categorization or consolidation if necessary. This process provides the category labels with which to identify themes. Using pattern coding, the study identified 7 main themes: housing choice & diversity, housing interior physical factors, community engagement, social isolation & limited social networks, work & financial constraints, neighborhood environment, and perception & preferences. The contextual approach employed in this study enables a nuanced exploration of participants' experiences by recognizing the diverse perspectives and interpretations individuals bring to their lived realities. Emphasizing the subjective nature of reality, this approach highlights the significance of comprehending participants' viewpoints, aligning with the principles outlined by Lincoln and Guba (1985). The themes are discussed in detail in the next chapter.

Chapter 4 – Research Findings

The overall aim of this study is to comprehensively investigate the relationship between housing environments, active aging, and the quality of life among African immigrant older adults residing in Chicago’s South Side. This section first lays out the general findings about the study participant and the characteristics of the housing and neighborhood they live in. thereafter, the study delves into the various active behaviors exhibited by African immigrants during their days off from work. The chapter concludes by developing a theoretical model from the themes this study identifies.

Research Question 1: The study participants general characteristics

To better understand the individual participants in this study, this section first discusses their general characteristics shown in Table 1:

Table 1: The living condition of the different age groups

#	Demographics	Age class				Total
		50-59	60-69	70-79	>80	
1	# of participants	8	13	6	3	30
2	% of each group	26.7	43.3	20	10	100
3a	Work status	# of hours/day	16hrs/day	16hrs/day	Varies	-
b		# of shifts/day	Double	Double	Single	Retired
c		# of days off/week	1	1	3	Nil
4	Tenure status	% renters	100	77	66	Nil
b		% owned occupied	-	23	34	100
5	Income	% on bills payment	40	35	35	10
	estimate	% on debts payment	30	45	45	50
		% left after helping family	20	13	15	30
		% after financial commitment	10	7	5	10

Source: Researcher’s field work, 2023

As outlined in Table 1, eight participants fall within the 50-59 age group, constituting 27% of the total study population. The age range within this group spans from 53 to 59. Notably, all these participants are engaged in daily double shifts, working for sixteen hours, with just one day off during the week and every other weekend free. They reside in rented apartments. In terms of their monthly income allocation, approximately 40% is designated for essential bills such as rent and services, while 30% is allocated to offset pre-existing debts. Another 20% is utilized to support their families, leaving only 10% for their personal needs.

Similarly, thirteen individuals are classified within the 50-59 age group, accounting for approximately 43% of the total study population. The age range within this group spans from 64 to 67 years. All participants in this category work daily double shifts, totaling sixteen hours, with one day off during the week and every other weekend free. Among these individuals, three (23%) are homeowners. In terms of their monthly income allocation, around 35% is allocated to essential expenses such as rent and services, while 45% is dedicated to offsetting pre-existing debts. An additional 13% is used to support their families, leaving only 7% for their personal needs.

The third group comprises individuals in the 70-79 age bracket, totaling six participants and representing 20% of the study's total population. Within this group, ages range from 70 to 79 years. Participants in this category work a single shift lasting between 8-10 hours, either during the daytime or overnight, with up to three days off free during the week, including weekends every two weeks. Two participants (34%) in this group are homeowners. Regarding their monthly income allocation, approximately 35% is designated for essential expenses such as rent and services, while 45% is allocated to offset pre-existing debts. An additional 15% is utilized to support their families, leaving only 5% for their personal needs.

The last group comprises three individuals aged 80, 83, and 84 years, constituting 10% of the studied population. All members of this group are retirees and own the houses they reside in. In terms of their monthly income allocation, around 10% is allocated to essential expenses such as service bills, while 50% is dedicated to offsetting debts and mortgage payments. An additional 30% is utilized to support their families, leaving only 10% for their personal needs.

Moreover, further questions were asked to delve into their work patterns. Responses from participants aged 50-59 revealed a spectrum of motivations, including “meeting financial obligations,” “supporting family members,” keeping a “feeling of liveliness,” and striving for “personal financial goal in life.” Similarly, individuals in the 60-69 age category cited varied reasons, such as the “necessity to pay back debts caused by jobs that don’t pay much” or additional financial burdens like “car loans.” Some participants, fostering “friendships and connections with others,” engaged in multiple jobs to prolong their “talking and spending time with people they know at workplace.” One participant highlighted “fewer people are available to do their CNA jobs after COVID-19, and there are chances to work longer hours, which helps me earn more money.” Participants aged 70-79 mentioned “working to clear mortgage debts,” fueled by both “love for what they do for a living” and the desire to “stay connected with others and maintain friendship connections.”

Apart from covering their mortgage payments, which already consumes half of their monthly retirement income, participants above 80-year-old age category noted that a significant portion of their retirement pay goes towards “meeting family needs.” Upon further inquiry, an 84-year-old grandmother shared her children’s sentiment that “she no longer spends her money on material desires, having moved beyond such pursuits at this stage of life.” Another participant mentioned that “her early retirement at 70 impacted her ability to manage mortgage payments.” Additionally,

she expressed the “financial instability of her own children, including her grandchildren, who often turn to her for financial support,” further straining her resources.

Research question 2 - Characteristics of housing in the study area of Chicago

All the participants residing in rented apartments described their accommodations as “multi-floor buildings without elevators.” They mentioned the existence of another set of multi-floor buildings with elevators, albeit at a “higher cost.” These buildings without elevators are predominantly “located along major roads,” adjacent to commercial and public establishments (see Figure 6). During the researcher’s observations, it was noted that the multi-floor housing exhibited diverse architectural styles representing various historical eras (see Figures 7 & 8).



Fig 6: A picture showing multi-floor buildings on 79th street South Chicago.

Source: Google earth (<https://earth.google.com/web>)



Fig 7. Showing multi-floor buildings with stairs only
Source: Researcher's field work, 2023



Fig 8: Showing Multi-floor buildings with stairs and elevator

Furthermore, participants were questioned about the interior layout of their residences, and detailed descriptions provided by the respondents were sketched for visual confirmation (see Figure 9). The depicted sketches revealed that some participants inhabit single-bedroom apartments, while others reside in two-bedroom units. Although the specific shapes of the units may differ, they all incorporate similar elements. Each standard unit comprises a living room, kitchen, bedroom, and bathroom. Participants emphasized the presence of co-tenants, with shared usage of the living area, kitchen, and bathroom among the occupants.



Fig 9. Showing the interior layouts of participants' residences

Source: Researcher's field work, 2023

The second category of buildings highlighted by participants is single-family housing. Upon the researcher's observation, these residences are situated in tranquil surroundings, set back significantly from the road, with buffer zones both between the road and the sidewalk and between the sidewalk and the front of the house (see Figure 10 & 11). These houses are specifically designed to accommodate a single family or household, offering them an independent and self-

contained living space. Notably, within the study area, these single-unit family buildings are predominantly owned by their occupants.



Figure 10: Showing an ariel view of single-family house type on S. Prairie & S. Indiana Avenue
Source: Google earth (<https://earth.google.com/web>)



Figure 11: Showing the front view of the single-family house type on South Indiana Avenue
Chicago
Source: Researcher's field work, 2023

Participants mentioned that they made this enduring investment in a house to enjoy the freedom of personalization, considering it a reward for their dedicated efforts. Another participant expressed that they chose single-family housing due to their desire for stability and the opportunity to build enduring relationships within their desired neighborhood. Additional observations made

by the researcher regarding the participants’ housing and environment will be detailed in the subsequent sections of the report to prevent redundancy.

Research question 3 - Leisure Customs of African Immigrants in Chicago

The study further delves into the varied and active behaviors exhibited by African immigrants during their days off from work (see table 2). One prevalent behavior observed across different age groups and genders among African immigrants on their days off is cleaning. Except for individuals aged 80 years and above, sweeping the house and its surroundings is a routine practice that underscores the significance of cleanliness and orderliness in their lives.

Table 2: Thematic analysis of participants’ active behavior in their residences.

Active behavior in the house	Number of mentions by age group			
	50-59 (%)	60-69 (%)	70-79 (%)	>80 (%)
	8	13	6	3
Sweep the house and surroundings.	8	13	5	1
Doing laundering.	8	13	5	1
Arranging and stacking stuffs	8	8	4	1
Cook varieties of food stack in the fridge	8	13	5	1
Watch television series & religious events.	4	8	5	3
Take time to rest to rejuvenate	4	7	6	3

Source: Researcher’s field work, 2023

Many participants noted that due to the demands of their workdays, they often engage in brisk cleaning, which might not always meet their desired level of cleanliness. As a result, they reserve their days off for thorough cleaning, engaging in activities like diligent scrubbing and mopping. Elaborating on this, one of the participants emphasized the importance of dedicating her day off to comprehensive cleaning, as “it’s the only opportunity she has every two weeks.” According to

the participants, “Cleaning isn't just about keeping things tidy; it also shows how you were raised, and it is also a form of exercising your body.” One participant expressed that “she grew up with the habit of sweeping and mopping; it's something she learned from home (meaning from her parents).” Another participant highlighted the physical aspect, explaining that “sweeping involves bending and moving around,” making it not only a cleaning task but also an opportunity to stay active.

Engaging in laundry is another task frequently undertaken by the respondents during their days off. The participants shared the same laundering process, which was well described by one as follows: “I manually wash specific areas of my linen, such as armpits, collars, and underwear, in a bucket within the bathroom. After this, I transfer the entire load into the washing machine for a complete wash.” Several participants expressed their enjoyment in handwashing their clothes, mentioning that “it brought back memories of home and cherished moments with loved ones.” Some participants preferred manual washing, “considered it faster, due to how far laundry room is to their apartments and the available washing space.”

Additionally, some participants were reluctant to use washing machines due to “concerns about potential damage to the fabric or disruption of design patterns.” For example, one participant shared, “While the washing machine makes the work easier, it's not suitable for our fabrics. It might tear or bleach the design, and the stones on my clothes could come off. If I handwash, I can take better care of these aspects. I use the laundry machine for collared wear and handwash my ‘*o wanbe*’ attires (event attires).” Others found “pleasure in the act of handwashing,” considering it a nostalgic activity. A few participants regarded using a machine as “unnecessary modernization” and “preferred the traditional method of handwashing.”

Furthermore, cooking also emerged as participants' important activity on their days off. Many described a routine of "shopping for fresh ingredients and household necessities," and "preparing diverse and delicious meals that could last them for several days." These carefully prepared meals were "then put it in the fridge, so they don't have to worry about it and can concentrate on their other tasks during their busy workweeks." Some of the male participants in their 70s stated that "they do not know how to cook," and the women in their 80s feels "too old to do the cooking themselves." These ones mentioned that they "hired someone to assist with cooking." However, even in these situations, they 'joined in the kitchen, showing their helpers how to cook meals as they wanted it."

Participants, particularly those in their 70s and 80s, shared that they utilize their free time engaging in intellectually stimulating activities, such as "watching informative television series like legal or relationship-based shows such as Divorce Court." Additionally, they commonly 'join online prayer lines and religious events' from religious organization they belong to back in their home country." This signifies the importance of spirituality and community in the participants' lives. Besides, most of the participants in their 80s mentioned that they prioritize "rest to adhering to their doctors' advice" which could provide essential physical and mental rejuvenation needed by this population. As mentioned by the participants, the resting period involves "leisurely naps," "watching television," "tuning into prayer lines," or "being on phone talking with family members" back in their home country.

For individuals under the age of 70 years, 'socializing' constitutes a significant aspect of their leisure activities. They mentioned that they usually "look for chances to hang out with friends," often coordinating plans through social circles. However, they mentioned "feelings disappointment when it's hard to find someone because they're too busy." Consequently, they

sometimes opt to “spend their leisure time alone, which is less enjoyable.” In such cases, they resort to “relaxing at home,” filling the void left by social engagements with moments of rest and tranquility. Occasionally, one participant noted that “when her family comes over, they go for sightseeing and take boat rides in different places around the city.”

Research question 4 – Motivating and inhibiting factors to active aging in housing and environment

This study delves deeply into the motivating and inhibiting factors affecting the active aging of the participants. To mitigate any potential bias in the researcher’s understanding of the participants’ descriptions regarding housing and environment, participants were asked to clarify their points by referring to visual images from Google Earth. Here, the coding, themes derived, and the subsequent grouping after sorting are detailed.

Group 1: Housing factors

The housing analysis as noted from the responses on the participants centers on the tangible, built facets of homes and communities of the African immigrants. It delves into physical aspects, like affordability, accessibility, and interior design. Structural stability, layout efficiency, adequate lighting, and ventilation are focal stood out as factors that hinder active aging of the participants. Also, this analysis highlights the diverse housing options available, promoting choices that cater to various needs and preferences. Table 3 below provides the two emerging themes grouped under housing factors and their various codes that impact the participants active engagement in their housing environment.

Table 3: The housing environment physical factors

Group	Themes	Codes
Housing Factors	<i>Housing Choice & Diversity</i>	Affordability in housing market
		Communal dynamics
		Neighborhood identity and character
		Housing accessibility and inclusivity
	<i>Housing Interior Physical Factors</i>	Structural integrity
		Limited personal space sizes
		Inadequate lighting
		Accessibility challenges
		Residential interior layout
		Ventilation
		Laundry space location

Source: Researcher’s field work, 2023

Theme 1 - Housing Choice & Diversity

The respondents emphasize the importance of diverse housing options available in the study area, indicating that the availability of different types of residences is crucial. This diversity could range from apartment complexes to single-family homes, accommodating various lifestyles and preferences.

Affordability in Housing Market:

The participants outlined the existing housing options and the nuanced factors affecting their affordability. Their insights encompassed a range of housing types in the study area, notably emphasizing the challenges tied to multi-floor housing. While many acknowledge it as “the cheapest house available,” they highlighted the persistent hurdles posed by “different prices every year depending on who is looking for it for you (agent used) and where you want it (location).”

Also, participants noted that “they keep increasing the rent every year” and this further intensified the need to seek housing option that “won't make them spend too much.” Additionally, they noted that amenities significantly influenced costs, with the maxim, “the more facilities you look for, the more you must pay,” prevailing. The participants underscored the universal nature of this scenario, observing that “people pay for conveniences here with no exception to age, not to talk of *awa atoun rin wa* (meaning we foreigners).” This candid perspective sheds light on the pivotal role of housing location, available amenities, and adept apartment search strategies in determining affordability. Despite challenges, participants expressed resilience in their pursuit of affordable housing, exemplified by one participant’s determination to overcome obstacles, stating, “My home doesn't have an elevator, so carrying groceries up the stairs is hard, especially as I get older. Even though it's tough, I must find a place I can afford and manage these challenges on my own.”

Alternatively, single-unit family buildings often demand a significant financial commitment. Homeownership entails initial down payments, ongoing mortgage payments, and maintenance costs, constituting a substantial, long-term investment. Many participants highlighted that “the family housing type in the south side here is cheaper than in many other areas in Chicago.” However, they underscored the requirement for stable documentation. Emphasizing the necessity of citizenship for property ownership, one of the participants stated that “you must be a citizen before you start thinking of buying a house. Without papers, you can only get low paid jobs.” The participant’s sentiment echoed a common understanding: stable employment is fundamental for changing tenure status. One participant poignantly stated, “*Ah! Eni ba ti jeun yo, ohun ni fela ke* (meaning that securing housing convenience follows addressing basic needs),” highlighting that housing ownership follows economic stability. Another participant shared their journey, “I never thought of staying, but when I got here, I saw lots of differences from where I came from. As time

went on, I got stabilized. But before I got stabled, it was hard to feed and pay bills. After so many years, I became a citizen and things turned around. I was able to go to school for training for a certified nursing assistant and I've been able to work in a health care center. That has improved my finances." With enhanced finances, they could secure a mortgage, making homeownership possible. Another participant proudly shared that "at least I have a house to call my own, even though I'm still paying the mortgage. That is what matters." Their perspective emphasized the value of having a place to call home, even amidst ongoing mortgage payments, emphasizing the significance of stability and financial progress.

Communal Dynamics:

In the study area, housing choices wield a profound influence on community dynamics. Multi-floor buildings shape a transient yet diverse community fabric. These structures magnetize a spectrum of residents, nurturing a vibrant atmosphere teeming with diverse cultural backgrounds and lifestyles. As one participant aptly noted, 'in our building, we have residents from diverse backgrounds, including Asia, South America, and various parts of Africa. Different languages are spoken in every wing.' Another emphasized the 'richness in culture' of this diversity, highlighting how it provides 'opportunities to learn from one another during interactions' in the environment.

However, 'the constant transient due to the frequent movement of residents' sow seeds of instability, disrupting the very essence of community. The rapid turnover not only impedes social cohesion but also casts a shadow on the neighborhood's overall ambiance. Respondents underlined that their 'workplace' often harbors 'stable friendship' more enduring social bonds than their homes. In the words of one participant, 'in this area, friendships are transient due to the frequent movement of residents based on their financial situations. Unlike my workplace where I have more

stable friendships, the ever-changing living situations make it challenging to establish permanent connections at home. People relocate to better or more affordable places, leading to a lack of enduring friendships in this community.’ Such frequent relocations, driven by economic factors, result in a dearth of lasting friendships, creating a community struggling for stability and connectedness. Establishing a stable, interconnected community becomes an arduous task in such areas, fostering a deficit of enduring relationships and a fragile social support network.

In contrast, residents in single-unit family buildings tend to experience a more enduring and close-knit community atmosphere. Homeowners cultivate ‘close relationships with immediate neighbors,’ fostering a profound sense of belonging and collective responsibility for the neighborhood’s welfare. A participant eloquently expressed this sentiment, stating, ‘In my neighborhood, we truly have a close-knit relationship, especially with the immediate neighbor. We know each other’s names, share meals, and help one another out. It feels like one big family. I think our stable living situations have allowed us to establish these deep connections, and it gives us a strong sense of belonging. We take care of each other, and that makes living here special.’

Neighborhood Identity and Character:

The coexistence of multi-floor buildings and single-unit family homes characterizes the diverse neighborhoods within our study area. During the researcher’s visit, regions abundant in multi-story structures showcased an undeniable urban allure, particularly evident during the summer months of the visit. In the same way, majority of the participants living in multi-floor housing ‘love the vibrant atmosphere of these neighborhoods,’ describing their neighborhoods as exhilarating due to their ‘constant activity and diverse spaces.’ One participant highlighted that ‘the mix of

residential and commercial spaces provides endless opportunities for social interactions and new experiences.’

However, some of the participants in their 70s and 80s expressed feelings of ‘being overwhelmed’ by the ‘constant hustle and bustle.’ As one participant voiced, ‘the noise from nearby commercial areas disturbs the peace I once had. It’s challenging to find moments of tranquility amidst all the activity.’ These sentiments reflect the challenges faced by older adults, making it ‘difficult to fully engage in the community and leading to a less satisfying experience of aging.’ The juxtaposition of excitement and disturbance underscores the complex dynamics at play within these neighborhoods, affecting residents differently and highlighting the need for balance in urban planning to ensure a harmonious living environment for all.

In contrast, neighborhoods predominantly consisting of single-unit family buildings emphasize the importance of ‘green spaces,’ with residents ‘taking pleasure tending to the garden.’ Homeowners are dedicated to a ‘well-maintained and visually appealing’ environment, fostering a beautifully landscaped and visually appealing neighborhood. The presence of these green havens has encouraged older adults to ‘engage in various outdoor activities’ within the serene ambiance. Residents emphasized that ‘the lawns become a lively space when visited by children and grandchildren’. These areas become where ‘they play games, run around, gather for barbecues, and create cherished memories’ within the peaceful embrace of their outdoor haven.

Housing Accessibility and Inclusivity:

In the context of the immigrant population, a prevalent observation emerged among the participants. Many were convinced that ‘a significant number of Chicago residents, or those who have previously lived in the city before relocating elsewhere, initially resided in the south side of

Chicago.’ The respondents emphasized that the south side offers an accessible entry point to the city’s housing market due to its affordability, allowing individuals, especially immigrants, to find housing that ‘fits their pocket size.’ Multi-floor buildings in the area cater to those not yet prepared for or financially able to pursue homeownership. Participants noted a common trend: people often relocate from the south side when they ‘acquire a car,’ enhancing their mobility, or when they ‘secure a better job,’ enabling them to afford housing in other areas. Reflecting on the area’s inclusivity, one participant highlighted that ‘people go from south side here to other parts of Chicago to work,’ ensuring that the study area remains accessible to people from diverse socioeconomic backgrounds.

For homeowners, the ‘opportunity to personalize both the interior and exterior of their houses’ serves as a compelling motivation for property ownership. Additionally, participants highlighted that ‘having a yard’ and ‘permanent neighbors’ fosters familiarity, nurturing social inclusivity within single-family housing communities. Although homeownership in these areas demands ‘servicing mortgage,’ the accompanying sense of belonging proves immensely rewarding. It cultivates a profound community spirit and pride among residents. In comparing their experiences between multi-floor housing and single-family housing, a participant shared, ‘My neighbor next door is Hispanic, and every evening they always have something to do in their yard. I also do sit out there because I know I will see them outside to talk to them, especially during summertime. It was not like that when I was in my rented apartment. When I was still living in the rented apartment, the next neighbor and I may not see each other for more than a month.’

Theme 2: Housing Interior Physical Factors

This section delves into the participants' responses to physical characteristics of their interior housing that hinders their participation in crucial physical activities. These are: the doubt of structural integrity, limited personal space sizes, inadequate lighting and ventilation, interior layout, and laundry space location.

Doubtful structural integrity

A prevalent concern among residents in multi-story buildings is the 'doubt about the structural integrity' of their housing. 'Except for the kitchen and toilet with floor tiles,' the participants shared that they 'hear different cracking sound when walking through different spaces in their apartment.' Many fear that 'the floors might not support vigorous activities,' leading to anxiety that discourages indoor physical exercise.

Limited room space

Moreover, a majority reside in 'shared apartments' with 'small room sizes,' resulting in 'limited living space for each occupant.' This cramped environment leaves them with 'insufficient room for exercise or exercise equipment.' One participant lamented, 'spatial constraints due to room size restrict free movements, making activities like house cleaning difficult.' Homeowners in their 80s, while not facing the same space challenges, expressed 'struggling with personal hygiene,' necessitating 'the expense of hiring house cleaners, adding to their financial burdens in old age.'

Insufficient lighting

Furthermore, another significant concern raised by most participants residing in multi-floor housing revolves around ‘insufficient natural lighting in the interior spaces,’ rendering certain areas not well illuminated. Participants noted that spaces like the ‘kitchen, laundry, and toilet often rely solely on artificial lighting,’ as ‘they lack exterior-facing windows.’ In single-family buildings, ‘natural light primarily enters through front windows and kitchen openings leading to terraces at the back.’ Participants explained that ‘the living room windows, facing the main road, necessitate covering for privacy,’ diminishing light intake. Similarly, the researcher observed that the kitchen terraces are covered, reducing light penetration. Both housing designs compromise interior natural light quality. According to respondents, the resulting ‘low illumination levels’ create a ‘fear of falls,’ making them ‘hesitant to engage in indoor physical activities due to unclear surroundings.’ The lack of well-lit spaces erodes their confidence, posing a significant barrier to exercise.

Perception of Interior layout & Poor ventilation

Furthermore, most of the participants mentioned that the interior layout of their residences hampers adequate airflow within the building. Respondents pointed out that areas like the ‘kitchen often become excessively hot and smoky, particularly during the preparation of African dishes involving extensive frying.’ Despite the presence of air conditioning, participants indicated that they ‘limit its use to prevent higher electrical bills, using it only when the interior heat becomes unbearable.’ The ‘open-plan kitchen design’ prevalent in the study area’ lacks access to external walls for natural ventilation,’ worsening the situation. The participants explained, ‘fumes from cooking rapidly spread to other areas, overpowering the limited capacity of the heat extractor to effectively

remove them.’ As a result, ‘the kitchen retains heat during cooking, causing discomfort and discouraging culinary process.’ The heightened ‘indoor temperature’ also compromises air quality due to ‘insufficient natural ventilation,’ discouraging active engagement in daily activities. This issue is particularly significant for older adults in their 80s, leading to a more sedentary lifestyle.

Poor accessibility

The participants living in multi-floor housing highlighted the significant challenge of ‘accessibility,’ particularly the ‘absence of elevators in their buildings.’ They explained that ‘securing a ground-floor apartment is challenging,’ forcing many to settle for whatever is available. Consequently, ‘the absence of elevators limits their outings to essential activities due to the exhaustion caused by climbing stairs,’ making stairs a considerable obstacle. This challenge is especially poignant for elderly women in their 70s who face ‘difficulties transporting groceries’ to their apartments. These difficulties underscore the urgent need for enhanced accessibility solutions in their living environments.’ Even in single-family housing with multiple interior level changes, ‘the need to climb right from the stairs outside due to raised floor level, stairs down to basement and stairs to the master bedroom upstairs all impedes their engagement in physical activities. Consequently, limited mobility restricts their movement, hindering an environment conducive to active aging. Addressing these physical constraints is crucial to enabling older adults to lead healthier, more fulfilling lives.

Laundry location

The placement of the laundry facilities in the basement presents substantial challenges for older adults. Firstly, the ‘fear of potential threats’ in the basement creates an overarching sense of insecurity, dissuading older adults from utilizing the laundry area. Secondly, ‘the physical effort

required to carry laundry up and down the stairs’ acts as a significant obstacle, making the process arduous and exhausting. Participants emphasized that not only is ‘doing laundry stressful’ due to these factors, but it also leaves them ‘feeling exhausted.’ Additionally, participants noted that ‘the time’ it takes for the machines to complete the laundering process is considerable, and ‘there is no seating available’ while waiting. Returning to their apartments during this time, ‘climbing stairs back and forth, is discouraging, making laundering particularly challenging’ for those residing in multi-floor housing.

Group 2: Social factors

The participant responses concentrate on social dynamics within the community, emphasizing communal interactions, relationships, and social networks. It also reveals their deals with community engagement, shared spaces, interfaith interactions, and inter-generational relationships. They shared the need to address how the community environment impacts social interactions, social isolation, and limits social networks. Their comments primarily focus on the intangible aspects of community life that can foster social cohesion.

Table 4: The housing environment social factors

Group	Themes	Codes
Social Factors	<i>Community Engagement</i>	Shared living spaces Religious activities and interfaith interactions Inter-generational dependency
	<i>Social Isolation and Limited Social Networks</i>	Fear of violence and horror experiences High crime rate in the area Limited social networks Street quietness and darkness
	<i>Work and Financial Constraints</i>	Limited leisure time due to financial needs

Theme 3: Community engagement

Community engagement emphasizes the active involvement of residents within their neighborhood. This includes participating in communal activities, utilizing shared spaces, and engaging in events that foster a sense of community belonging.

Shared Living Spaces:

All participants residing in multi-floor apartments mentioned ‘sharing their living space with someone to reduce rent costs.’ They emphasized the advantages of this practice, citing benefits such as ‘companionship’ and ‘social interaction,’ which they deemed ‘crucial, particularly in a foreign environment away from their own families.’ They pointed out that ‘living with others encouraged joint activities and leisure’ pursuits, serving as a remedy for ‘loneliness’ and offering mutual ‘motivation’ to stay active. Moreover, participants highlighted the emotional support derived from cohabiting with fellow Africans, emphasizing ‘the assistance available, especially when facing challenges relating to aging or adapting to the new environment.’

Religious Activities and Interfaith Interactions:

Additionally, cohabitation facilitated ‘interfaith interactions’ among the respondents. Many participants revealed living with individuals of the ‘same religion,’ ‘same denomination,’ or ‘different religion,’ enabling their participation in various religious events and services they were invited to. Accepting these invitations allowed them to ‘connect with other Africans,’ fostering a sense of community and expanding their ‘social networks.’ These events often ‘involved physical activities like standing, sitting, dancing, and singing,’ providing a sense of ‘feeling alive and

helping stretch out joints,’ promoting joint flexibility. Participants also ‘shared local meals’ after these events, ‘strengthening relationships’ and possibly fostering a stronger sense of community.

Inter-generational Dependency:

In South Chicago, the practice of inter-generational dependency is widespread among African immigrant older adults, especially those who own homes. As explained by one participant, newcomers are often directed to ‘available accommodations, particularly within the homes of house owners or those with extra living space.’ This arrangement proves mutually beneficial. An 80-year-old homeowner highlighted that ‘providing accommodation reduces housing costs for new arrivals, allowing them to pay less than they would for their own apartments.’ For the homeowners, this symbiotic relationship enables them to ‘utilize the rent fees to offset their housing mortgages.’

Furthermore, participants shared that having additional company, often younger individuals accommodated in their homes, contributes to ‘a sense of companionship.’ Additionally, these younger residents ‘assist with household tasks’ such as cleaning, cooking, and grocery shopping. One participant recounted his experience, mentioning that ‘the person who accommodated him not only provided housing but also connected him to job opportunities, helping him acclimate to the new environment.’ This inter-generational support network plays a crucial role in fostering active aging within the community.

Theme 4 - Social Isolation and Limited Social Networks

Fear of violence and horror experiences

Among the concerns frequently raised by participants is the prevalent ‘fear of violence’ and ‘horror experiences.’ One participant shared that ‘instances of violence occur unpredictably in the environment,’ making it a constant concern. Another participant emphasized ‘some major streets such as 79th street is known danger areas, and it is mostly unlikely for an individual not to pass one of these areas.’ A participant recounted a harrowing incident where ‘her friend’s son was struck by a stray bullet during a street disturbance on his way home.’ This prevailing atmosphere of ‘fear and anxiety’ has created a hostile environment, where older adults ‘worry about their safety’ even within the confines of their homes.

Limited social networks

A prevailing sentiment shared by the majority is the feeling that ‘nowhere is truly safe here.’ One participant shared, ‘when they begin their trouble in this environment, you may either be coming back from work, or other social outing. You will likely need to pass through the troubling area to get to your houses or they have already brought the fight to your doorsteps. So, the safest way is for such day to meet you at home.’ Participants expressed this pervasive fear, which has led them to prioritize ‘only essential outings.’ This heightened ‘sense of insecurity’ has significantly ‘limited their mobility’ and ‘social interactions,’ impacting their overall quality of life.

Street quietness & Darkness

Similarly, participants noted that ‘the streets are quiet in the evening and dark,’ providing an opportunity for various ‘crimes such as theft, assault, and property crimes’ to occur. Many

‘recounted incidents’ where ‘friends had been robbed while walking on the streets or trying to park their vehicles.’ As a watch measure, one participant mentioned that ‘his friend always waited for him to enter and close his apartment door when dropping him off, while he watched through the window to ensure his friend drove off safely.’

High crime rate in the study area

The persistent high crime rate in the area has become a formidable obstacle for the residents. Most respondents prioritize ‘safety first,’ often ‘declining social activities that involve returning home after dark’ due to these concerns and leading to ‘limited social networking.’

Theme 5 - Work and Financial Constraints

Limited leisure time

Navigating leisure activities proves challenging to most of the participants due to significant financial constraints. Most of the participants prioritize ‘covering essential expenses’ and ‘financially supporting their family back home.’ To some participants, ‘balancing two jobs is exhausting,’ while this is compounded by ‘limited income’ for others. Some of the participants expressed their ‘commitment in covering the gap of scarcity of skilled workers in their profession cause by post-COVID-19 effect.’ Another participant explained that ‘grapple with a car loan necessitating extra work.’ In the light of positive feedback, one participant posits: my workdays offer interactions with diverse people,’ a small reprieve amid financial pressures.

Group 3 – Environmental factors

This group explores the environmental factors that influence the overall livability and safety of a neighborhood. It encompasses various aspects that significantly impact residents' quality of life and their perception of their neighborhood.

Table 5: The housing environmental factors

Group	Themes	Codes
Environmental Factors	<i>Neighborhood Environment</i>	Permeability of the street
		Absence of resting spots
		Safety and security concerns
		High-speed traffic
		Lack of proximity to parks
		Automobile-focused transportation
		Unsafe sidewalks
		Lack of street Interconnectivity
		Streetlights spacing and street darkness
		Unkept environment

Source: Researcher's field work, 2023

Theme 6: Neighborhood environment

In this coherent narrative, the codes under neighborhood environment acts as a foundational element, influencing street design, resting spots, safety measures, traffic patterns, and the overall appearance of the community. Safety and well-being concerns are central, affecting transportation choices, recreational opportunities, and the overall identity of the neighborhood. The focus of the participants was on the broader environmental context of the community, including the physical layout of streets, presence of green spaces, safety concerns, and street lighting. They mentioned

concerns with the permeability of streets, presence of resting spots, safety and security, transportation patterns, and overall environmental upkeep.

During the interview, several participants openly shared their addresses within the study area, which was viewed using google earth, offering insights into the factors hindering their active engagement with the environment. Residents in rented apartments frequently described their homes as ‘facing or adjacent to major roads’ characterized by ‘high-speed and reckless traffic,’ making ‘sidewalks feel dangerously close to the road’ (see figure 12). Many participants, both renters and homeowners, highlighted the ‘area’s automobile-centric design,’ with ‘streets connecting directly to major roads,’ making ‘walking challenging, especially for older adults.’



Figure 12: Showing the closeness of the sidewalk to the road.

Source: Google Earth picture

Homeowners, while ‘having buffer zones,’ expressed concerns about ‘the permeability of their streets’ during major ‘road violence,’ making their ‘areas potentially unsafe.’

One participant mentioned her ‘desire to walk’ in the cool evenings but faced ‘challenges due to fatigue’ and ‘lack of resting points.’ Even though ‘available lawns,’ sometimes is an option, yet

presented ‘difficulties when getting back up.’ Some participants refrained from being outdoors after dark due to ‘poorly trimmed trees obscuring streetlights,’ ‘fearing potential robberies’ amid the ‘prevalent crime’ in their area (see figure 13). Moreover, ‘littering in their neighborhood’ created ‘hazards,’ making the ‘sidewalk potentially dangerous.’ Participants also lamented the ‘absence of nearby parks,’ with ‘interesting ones located closer to the city downtown.’ However, ‘coordinating schedules’ to find ‘company for outings proved challenging,’ further limiting their recreational opportunities. These concerns collectively underscore the multifaceted challenges faced by residents, affecting their safety and leisure activities in the community.



Figure 13: Showing the night view of streets.
Source: Researcher’s field work, 2023

Group 4 - Individual experiences

This part focuses on the individual perspective, which addresses the reasons behind their individual housing preferences, cultural influences, health-related limitations, and emotional aspects of

living. The emphasis is on the diverse needs and experiences of individuals within the community. Primarily concerned with the subjective, personal experiences and perceptions of community life.

Table 6: The individual experience factors.

Group	Themes	Codes
Individual Experiences	<i>Perceptions and Preferences</i>	Housing preferences (e.g., multi-floor buildings vs. single-unit family buildings) Cultural backgrounds and traditions Health perceptions and limitations Emotional well-being and mental health

Source: Researcher’s field work, 2023

Theme 7: Perceptions and preferences

In this coherent narrative, individual experiences form the core, influencing housing preferences, health considerations, emotional well-being, and the preservation of cultural traditions. Housing choices and community interactions, in turn, reciprocally impact individual experiences, creating a dynamic interplay between personal preferences, cultural backgrounds, health, and mental well-being.

Housing preference

The study explores the factors influencing the participants’ housing choices, including lifestyle preferences, financial considerations, and individual circumstances. A common desire mentioned by all participants living in rented apartment is to ‘have their own house;’ however, some participants stated that ‘financial constraints’ have led them to reside in rented apartments. Additionally, some participants are drawn to ‘vibrant areas bustling with various activities,’ while others remain in their current residences due to ‘ongoing immigration paperwork processes.’

Cultural background and traditions

The participants' comments regarding their housing choices and activities provide insights into their cultural background and traditions from their home country. Some participants mentioned being welcomed by their extended family, leading them to reside in areas where they can 'stay close to relatives' who 'share their language and cultural heritage.' One participant shared, 'In Chicago, immigrants often seek housing in areas where people from their country reside.' Many times, their extended family members assist them in finding suitable apartments, fostering a communal lifestyle.

Religion also plays a significant role in defining the participants' choice of locations. Several participants noted that religious activities serve as their primary 'social engagements.' With their religious institutions situated in the south side, many participants choose 'housing in proximity' to these areas to maintain a 'closer connection to their faith community.'

Emotional wellbeing & mental health

Living alone in a foreign land presents significant emotional challenges, and the participants employ various strategies noted in their responses to maintain emotional well-being and mental health. 'Staying amidst familiar people' becomes a crucial coping mechanism; the participants mentioned that it provides a 'sense of belonging' and helps prevent 'feelings of isolation.' Given the 'discrimination' faced in the new environment as mentioned by some of the participants, remaining 'connected with their own community' acts as a buffer against 'frustration' and helps combat the 'sense of isolation.' Keeping in touch with fellow countrymen not only offers 'emotional support' but also 'practical connections,' enabling them to 'send gifts and maintain ties with their families back home.' These connections serve as a lifeline, allowing them to share their

struggles and navigate the complexities of life in a foreign culture, thereby promoting their emotional resilience and mental well-being.

Health perception and limitation

The homeowners and some still living in the rented apartment mentioned that they are working hard to secure their own house to ‘maintaining their health,’ providing them with a haven away from the ‘harmful environments of rented apartments’ where others engage in ‘unhealthy habits.’ Their determination to invest in housing illustrates a strategic move to access a healthier living space. Additionally, some noted that they utilize connections with fellow community members traveling back home, leveraging these ties to ‘obtain local remedies and medications’ for their health issues. These show their beliefs in their traditional approach to health issues.

Chapter 5 - Discussion of findings

The purpose of this study was to explore the living experience of African immigrants in their housing and environment, and to understand the influence of this experience on participation in physical activity (active aging). This chapter discusses the findings of the study, outlines the practical application of the developed theoretical model, and provides a set of recommendations for future research.

The barriers to participants' active aging

The findings of this study reveal that housing stands as a crucial determinant for active aging within the context of African immigrant older adults. The overall well-being for this population is inextricable from cultural identity, social support, economic stability, and housing. The physical limitations of their housing environment are a barrier to the pursuit of the health benefits of active aging (figure 14). The economic, environmental, social, and housing challenges will be elaborated on below, as will the strategies these citizens use to ameliorate them.

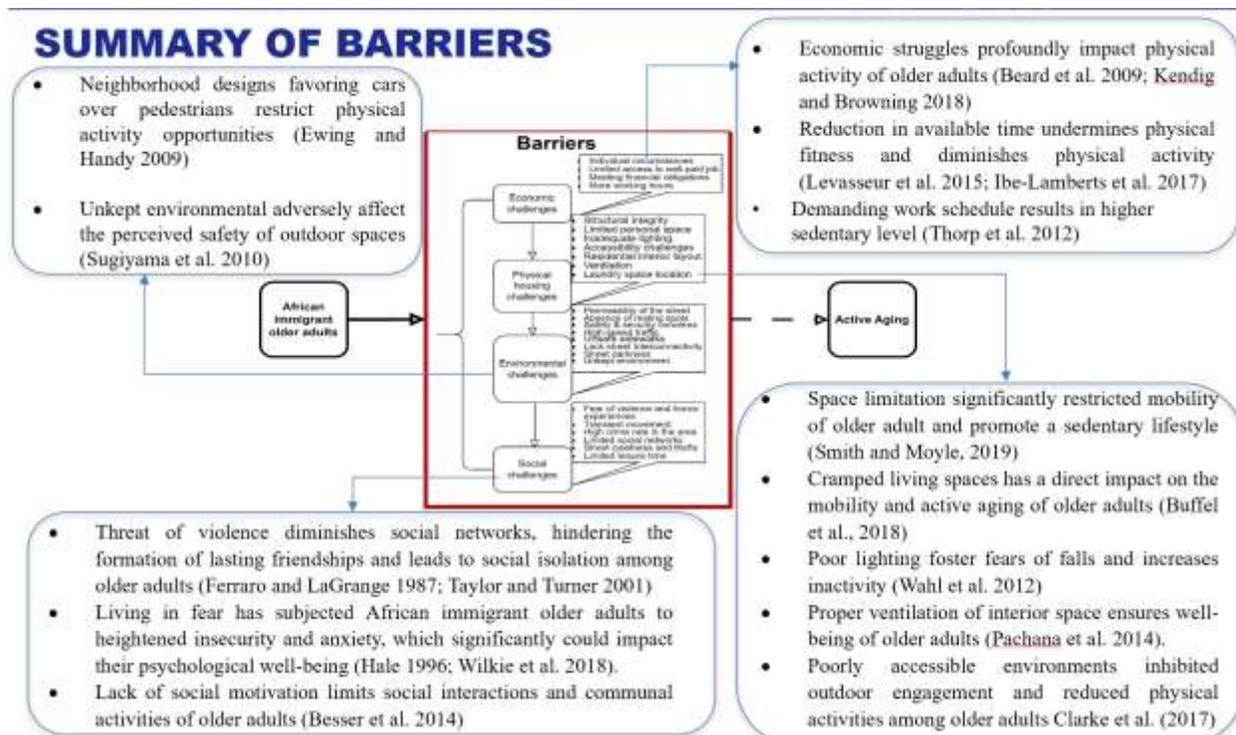


Figure 14: showing the barriers to active aging of participants and supporting literature.

Economic challenges

The delicate balance between affordability and accessibility becomes a pivotal challenge that shaped the housing decisions of the African immigrant older adult. Financial constraints result in their choice of housing options which lack essential amenities vital for promoting an active and healthy aging process. Extensive research, such as studies by Scharlach and Lehning (2013) and Hossen & Mohd Pauzi (2023), underscores the crucial role of accessible housing in fostering active aging. Smith's (et al. 2017) finding emphasized that marginalized communities do experience disparities in accessing essential resources for active aging. These amenities pose a significant financial burden for immigrants whose employment opportunities are restricted due to immigration constraints (Danso & Grant 2000). Beard et al.'s (2009) found that older adults with such financial

constraints as African immigrants in this study face economic struggles, profoundly impacting their overall health outcomes.

Also, the necessity to extend working hours to meet financial obligations directly impedes the ability of African immigrant older adults to partake in physical and social activities crucial for their health and overall well-being. This reduction in available time for recreational pursuits not only undermines their physical fitness but also restricts opportunities for social engagement, a pivotal element in promoting active aging (Levasseur et al. 2015). This challenge intensifies for older adults, particularly those who continue working beyond the conventional retirement age. Many of the retirees in this study find themselves burdened with debts and the responsibility of financially supporting their families, leaving them with scant resources and time for activities conducive to active aging. These struggles echo findings from research conducted by Kendig and Browning (2018), underscoring the financial pressures experienced by older adults and its profound impact on their overall well-being. This trend emphasizes the urgency of addressing these challenges to ensure equitable opportunities for active aging among African immigrant older adults.

Physical housing challenges

The study participants emphasized that various physical housing characteristics significantly impede their engagement in physical activities within their residential interiors. Concerns about structural integrity, inadequate natural lighting, poor access to fresh air and limited personal living spaces were cited as key obstacles. For African immigrants, the contrast between the familiar solid mass concrete housing, known for its stability and lack of detectable compression effects under load (Odeyemi et al. 2018), and the frame structure housing prevalent in the study area, which

often includes wood partitioning, caused apprehension. The study participants exhibited a pervasive distrust in the structural integrity of their buildings due to the sound produced by wood under external pressure. Additionally, many participants shared living spaces with partners to cut housing costs, resulting in cramped conditions. This limitation in space has significantly restricted their mobility, promoting a sedentary lifestyle that compromises their physical health (Smith and Moyle, 2019). The combination of structural integrity concerns and cramped living spaces has a direct impact on the mobility and active aging of older adults (Buffel et al., 2018)

Likewise, economic constraints of the study participants influence the limited use of natural lighting and fresh air to reduce housing-related costs, resulting in inadequate lighting and ventilation due to interior layouts. These conditions foster fears of falls and increases inactivity, which underlines the pivotal role of well-lit spaces and proper ventilation in ensuring the safety and well-being of older adults, along with their positive impact on active aging (Wahl et al. 2012; Pachana et al. 2014).

The absence of elevators further exacerbates mobility challenges in the study area, discouraging outdoor activities. This issue aligns with research by Clarke et al. (2017), highlighting the significance of poorly accessible environments that often result in inhibited outdoor engagement and reduced physical activities among older adults. Therefore, the interplay of all the mentioned physical challenges significantly hampers the active aging pursuits of African immigrant older adults.

Social challenges

In a vibrant yet volatile community marked by frequent relocations, the pervasive fear and anxiety experienced by African immigrant older adults profoundly shape their active aging experiences. Participants' narratives vividly illustrate the grim reality of their daily lives, characterized by an overwhelming fear of violence. The prevalent sentiment that "nowhere is truly safe here" significantly impedes the active aging pursuits of older adults. Research, such as the study by Ferraro and LaGrange (1987), has elucidated how constant threat of violence diminishes social networks, hindering the formation of lasting friendships and leading to social isolation among older adults. In response, African immigrant seniors limit their outdoor activities, a coping mechanism that further restricts their mobility and active engagement within the community (Hale 1996; Wilkie et al. 2018). Living in fear has subjected African immigrant older adults to heightened insecurity and anxiety, which significantly could impact their psychological well-being (Taylor and Turner 2001). As coordinating outings becomes challenging, it results in limiting social interactions and communal activities crucial for the well-being of older adults (Besser et al. 2014). Despite these challenges, finding ways to facilitate safe social engagements and promote mobility remains crucial for enhancing the overall quality of life for older adults in this fearful environment.

Environmental challenges

The study delves into the influential role of neighborhood environments in shaping the active aging experiences of residents, unveiling a series of challenges that hinder residents, especially older adults, from engaging in outdoor activities. Streets in the study area are auto centric, making walking hazardous for elderly pedestrians. The hazardous conditions are exacerbated by issues

such as littering which diminishes the safety of sidewalks, and the scarcity of resting spots which intensify fatigue among residents trying to participate in outdoor activities. The lack of nearby parks interesting to the study participants, combined with the difficulty in organizing outings, limits recreational opportunities, further hindering active aging pursuits. Additionally, poorly trimmed trees obstructing streetlights heighten safety concerns, discouraging nighttime outdoor ventures.

Research by Van Cauwenberg et al. (2016) emphasizes the importance of accessible public spaces in bolstering physical activity among older adults, aligning with the present findings. Studies by Ewing and Handy (2009) and Foster and Giles-Corti (2008) shed light on how neighborhood designs favoring cars over pedestrians restrict physical activity opportunities, corroborating the challenges identified in this study. Furthermore, Sugiyama et al.'s (2010) research found that environmental hazards, like litter, adversely affect the perceived safety of outdoor spaces, dissuading older adults from participating in physical activities. In conclusion, rectifying the challenges posed by an automobile-centric design, lack of resting spots, obscured streetlights, and prevalent crime is essential for promoting active aging among residents, calling for thoughtful urban planning interventions to create safer, more inviting spaces conducive to outdoor activities and healthy aging.

The implication of the participant general characteristics on Active aging

A consistent theme that emerges across these age groups is the essential role of familial support. Participants consistently express the significance of meeting the needs of their family members, often prioritizing family requirements over their personal ones. This dedication to family becomes

even more pronounced as participants transition into older age groups. This pattern underscores the importance of familial ties and the responsibility they feel towards their kin.

However, the challenging work environment, characterized by prolonged working hours and extensive commitments, has emerged as a significant concern in the context of the well-being of the participants in the study area. Several studies have delved into the implications of such a demanding work ethic, shedding light on its multifaceted effects on the individuals' stress levels, physical activity engagement, and overall well-being. Research conducted by Loibl (2017) illuminates the immense stress of immigrants due to their demanding work schedules. The pressure to meet financial obligations and provide for their families in a high-cost living environment amplifies their stress levels. This study emphasizes the burden of additional responsibilities and excessive bills, leading to heightened stress among participants. As established by Castelli (2018), the pursuit of financial stability and fear-free living often motivates immigrant relocation. However, the reality in the U.S. shows to have increased the stress, challenging the mental well-being of the older adult population.

Also, the demanding nature of work has a direct impact on the physical activity levels of African immigrant older adults. The relationship between demanding work schedules and diminished physical activity levels among the older adult population has garnered significant attention in literature. Several studies have explored this connection, shedding light on the complex interplay between work commitments, time constraints, and the ability to engage in regular physical activities. Ibe-Lamberts et al. (2017) corroborates these findings, indicating that the lack of time due to work commitments hampers the active engagement of African immigrants in physical activities. Limited physical activity not only affects their physical health but also contributes to stress accumulation, creating a cyclical effect on their overall well-being. Also, Research by Thorp

and colleagues (2012) delved into examine sedentary time, prolonged sedentary bouts, and physical activity in Australian employees from different workplace settings, within work and non-work contexts. Their findings highlighted that individuals with demanding work schedules tend to have significantly higher sedentary periods, reducing opportunities for physical activity. They concluded that the workplace is a key setting for prolonged sedentary time, especially for some occupational groups, and the potential health risk burden attached requires investigation. Similarly, a study by Toker & Biron (2012) investigated job burnout–depression association and factors that may influence it. The research revealed that the increase in job burnout and depression was strongest among employees who did not engage in physical activity and weakest to the point of no significance among those engaging in high physical activity. The physical exhaustion resulting from work significantly could impact the motivation and energy levels required for physical activities outside of work hours. Furthermore, work-related stress has been identified as a key barrier to physical activity engagement. Research by Klaperski (2018) explored the stress-buffering effect of exercise behaviors. The study found a direct correlation between high-stress work environments and reduced physical activity levels. Stress-induced fatigue and lack of motivation were cited as major impediments to engaging in physical activities after work. Equally, shift work, common in demanding professions, can disrupt the circadian rhythms and sleep patterns of individuals. A study by Atkinson et al. (2008) specifically examined the exercise patterns of shift workers. The findings indicated that irregular work schedules significantly hindered the establishment of consistent exercise routines, leading to reduced overall physical activity levels among shift workers, including older adults.

Consequently, the demanding nature of work, characterized by long hours and extensive commitments, significantly has a great impact on the well-being of the African immigrant older

adult population. The stress emanating from work pressure, coupled with limited time for relaxation and physical activities, poses a substantial challenge to their overall health and quality of life.

The participants' coping strategies.

The process of aging is a complex interplay of biological, psychological, and environmental factors (Wahl et al., 2012). Contemporary research by prominent human development theorists such as Carstensen (2006) and Kunzmann et al. (2019) emphasizes that older adults are not passive recipients of their circumstances. Instead, they actively engage in managing their experiences and adapting to the multifaceted challenges posed by aging and residential environment circumstances. Golant's (2011) insightful analysis illuminates the behavioral responses of older adults, particularly when their living conditions do not align with their needs. Golant elucidates that in challenging environments, individuals initiate either accommodative coping strategy involving emotional regulation and defensive reappraisals (Charles & Carstensen, 2010), or/and assimilative coping involving action-oriented modifications and alternative activities (Pinquart & Schindler, 2007). Empirical studies, including those by Johnson and Johnson (2018), underscored that resilience and adaptability is inherent in older immigrant populations. Building upon this literature, finding about the coping strategies employed by African immigrant older adults in this study reveal valuable insights into their active engagement and adaptation processes in aging actively within their living environment despite many challenges (see figure 15).

Accommodative Strategy
(Emotional-focused)

- Living with individuals of the same or different religions
- Staying amidst familiar people
- Inter-generational dependency
- Interfaith interactions
- Maintaining ties with families back home
- Engage in work that involves interactions with diverse people.



Assimilative Strategy
(Problem-focused)

- Leveraging community ties
- Cooking their own meal in large quantity
- Proximity to religious institutions
- Shared living space with fellow Africans
- Prioritize essential outings.
- Invest in securing their own houses.

Figure 15: Showing the coping strategies employed by participant to ameliorate challenges.

Accommodative form of coping strategy

The study findings showed that the African immigrant older adults find solace and social connections by engaging in religious activities, addressing emotional well-being, and mitigating feelings of loneliness. This emotion-focused coping strategy observed has been widely studied in the context of aging. Research by Carver, Scheier, and Weintraub (1989) highlights the significance of emotion-focused coping in managing emotional distress, emphasizing the importance of seeking emotional support and expressing emotions as effective coping mechanisms.

For African immigrant older adults, residing near their religious institutions creates a tightly knit community of individuals with shared needs and beliefs. This close-knit circle not only offers them emotional support but also fosters a profound sense of belonging (Wahl and Gerstorf, 2018). Many participants highlighted that their primary social engagements revolve around their religious

activities. Opting for housing near the south side, where their religious institutions are located, allows them to maintain a direct connection to their faith community. This proximity enables them to interact closely with fellow believers, sharing their thoughts and supporting one another in times of difficulty, reinforcing the strong bonds within their community. Studies by Koenig and Büssing (2010) emphasize the positive impact of religious involvement on emotional well-being among older adults, affirming the findings of the coping mechanisms observed in this study. Chatters (1998) also found that religious involvement significantly reduces emotional distress among older adults. Additionally, findings from the research conducted by Krause (2006) emphasized the role of religious support networks in promoting emotional well-being and resilience among older adults, aligning with the emotional support derived from religious gatherings mentioned in the study.

Also, the accommodation of new younger immigrants in their homes echoes the concept of intergenerational support that has been associated with improved emotional well-being and practical assistance for older adults (Silverstein et al., 2002). The symbiotic relationship not only reduces housing costs for newcomers but also offers invaluable companionship to the older adults. Navigating life alone in a foreign land can be emotionally daunting, making the intergenerational support employed by the participants essential for maintaining emotional well-being and mental health, thereby preventing feelings of loneliness. The practical assistance provided by the younger generation serves as a buffer against frustration stemming from physical limitations and effectively combats the profound sense of isolation experienced by the older adults. This mutually beneficial arrangement not only eases financial burdens but also fosters a supportive social environment, contributing significantly to the overall well-being of both generations involved. Silverstein and Giarrusso (2010) explored the dynamics of intergenerational support among diverse racial and

ethnic groups, emphasizing its positive impact on the emotional well-being of older adults. The emotional and practical assistance derived from intergenerational relationships corresponds with the support system created by African immigrant older adults through accommodating younger individuals in their homes. It not only aids in daily tasks but could also foster a sense of control over their living situations, promoting active aging (Bengtson and Roberts 1991). This corroborates the concept of primary control strategies presented by Heckhausen and colleagues (2010), modifying their social environment to maintain control over their living conditions and daily activities.

Additionally, despite safety concerns, these older adults actively engage in communal activities within their neighborhoods, demonstrating a defensive reappraisal of their environment. Defensive reappraisal involves finding value and safety in community interactions despite existing challenges (Baltes & Carstensen, 1999), underlining the significance of adaptability in enhancing social engagement among older adults. Engaging in collective vigilance during nighttime activities helps the participants reevaluate their fear of the environment. One participant described how his friend consistently waited until he entered his apartment and closed the door, ensuring his safety before driving away. Research by Wahl and Oswald (2010) underscores the significance of community engagement for older adults, emphasizing its impact on enhancing social integration, reducing loneliness, and promoting overall well-being. This mutual watchfulness not only fosters a sense of security but also highlights the interconnectedness within the community, reinforcing the importance of such shared experiences in the lives of older adults. The study demonstrated that older adults engage in community activities as a strategy to enhance their sense of belonging and security. This aligns with the work of Buffel (et al. 2012) whose findings emphasized the role of

community engagement in creating social cohesion and fostering a sense of collective belonging among older adults.

Furthermore, living close to relatives who share language and cultural heritage serves as a secondary control strategy, enabling the older adults to maintain their cultural identity. Maintaining a strong connection with their own community serves as a valuable buffer against frustration and counters the sense of isolation experienced by these individuals. Staying in touch with fellow countrymen provides not just emotional support but also essential practical connections, enabling them to send gifts and maintain ties with their families back home. These connections act as a lifeline, offering a platform to share their challenges and navigate the intricacies of life in a foreign culture. By fostering these connections, individuals enhance their emotional resilience and promote their mental well-being, underscoring the vital role of community ties in their overall adaptation and happiness. Maintaining cultural identity and continuity significantly impact the well-being of older immigrants. The study by Nesteruk and Marks (2011) explored the influence of acculturation on the psychological well-being of older immigrants, emphasizing the importance of preserving cultural heritage. Similarly, findings from the research conducted by Berry (2003) highlighted the positive outcomes associated with cultural continuity, including enhanced self-esteem and overall life satisfaction among immigrants in a new cultural context. Research by Choi, Miller, and Wilbur (2009) emphasizes the significance of cultural identity in promoting a sense of belonging and well-being among older immigrants. The proximity to familiar cultural contexts and languages aids in mitigating feelings of displacement, thereby enhancing their overall active aging experience.

Assimilative coping strategy

The aspiration for homeownership among African immigrant older adults, despite financial constraints, resonates with findings from studies in gerontology. Research by Wahl and Gerstorf (2018) emphasizes the importance of problem-focused coping in older adults, where individuals actively seek to change their environment to gain stability. Despite financial constraints, the dream of homeownership becomes a beacon of hope, symbolizing stability, and a sense of belonging. Approximately 30% of participants, aged above 70 years, identified themselves as homeowners, highlighting the advantages of owning a home. Homeownership provided them with a secure sanctuary, shielding them from environments marked by neglect and unhealthy practices. Moreover, owning a house facilitated enduring friendships and close connections with neighbors, enriching their social interactions. The study participants take pride in personalizing their home environment, ensuring it is well-kept and visually appealing. This dedication translates into a beautifully landscaped environment that has also motivated older adults to participate in a range of outdoor activities, all within the serene and inviting ambiance of their community. For these participants, homeownership became an integral aspect of their coping strategy, imparting a sense of ownership and stability that resonated with their aspirations for a fulfilling living experience. This finding underscores the pivotal role of homeownership in promoting a sense of security and social well-being among older adults, aligning with their fundamental desires for a safe and socially enriched environment.

In the realm of social interactions, African immigrant older adults engaged in interfaith religious activities to compensate for other areas of limitation. This coping method mirrors the concept of selective optimization with compensation (Baltes & Baltes, 1990) which involves the ability to find solace and connection even in challenging circumstances. The active involvement of

participants in interfaith activities serves as a valuable compensation for their restricted mobility. These interfaith events encompass a variety of engaging activities, including standing, sitting, dancing, and singing, fostering physical movement and interaction. Engaging in such activities not only creates a sense of community but also enhances joint flexibility, making participants feel more vibrant and interconnected. These social connections have a positive impact on their psychological well-being. This observation aligns with the research of Baltes and Carstensen (1999), emphasizing how optimization and compensation strategies enhance social engagement among older adults, reinforcing the significance of these practices in promoting active aging.

Inter-generational dependency emerges as a cornerstone of their coping strategies. By fostering bonds with younger individuals, the study participants modify their social environment and maintain control over their lives. However, this is a symbiotic relationship, with the older generation also guiding newer residents in how to navigate their community. As older adult homeowners, they extend their homes to accommodate the younger generation, easing the burden of housing costs for these new immigrants. In return, the younger residents actively contribute by assisting with household tasks, providing valuable practical support to the older adults. This reciprocal arrangement reflects a harmonious intergenerational cooperation within the community. This coping strategy aligns seamlessly with primary control strategies, where older adults adapt their social dynamics to preserve independence (Heckhausen et al., 2010). Involving younger individuals not only provides companionship but also aids in daily tasks, empowering older adults to maintain independence. This approach aligns with findings by Pearlin et al. (2005), emphasizing the significance of social engagement and support in promoting a sense of control and well-being.

Leveraging cultural connections for healthcare illustrates adaptive coping strategies (Folkman & Moskowitz, 2004). The study participants maintain access to their traditional cuisine by relying on

friends and acquaintances who visit their homeland and bring back local foods. This approach allows them to enjoy homemade meals, avoiding potentially unhealthy processed foods. Additionally, they obtain essential local herbs from their homeland, ensuring their continued well-being and health. This coping method aligns with the cultural adaptation model, emphasizing the importance of cultural practices in maintaining health (Kirmayer et al., 2011) in a deprived neighborhood. This adaptation showcases the study participants' resourcefulness and ability to modify their healthcare approaches to suit their environment.

The summary of findings

The study aimed to investigate how the living experiences of African immigrants in housing and environment influenced their participation in physical activity (active aging). The findings highlighted several barriers impacting active aging, particularly economic, physical housing, social, and environmental challenges. Economic constraints affected housing choices, leading to inadequate amenities crucial for promoting active aging. Additionally, economic pressures, including extended work hours, limited time for physical and social activities. Physical housing challenges such as structural concerns, limited space, and poor lighting restricted mobility, promoting a sedentary lifestyle. Social challenges like fear of violence limited outdoor activities and hindered social engagements. Environmental issues like unsafe streets and lack of recreational spaces also hindered outdoor activities.

The study highlighted the influence of participants' general characteristics on active aging. Family support was crucial, but demanding work environments, stress, and limited time impacted physical activity levels. Coping strategies employed by participants included accommodation through religious engagement, intergenerational support, and maintaining cultural ties, aiding emotional

resilience and community involvement. Homeownership served as a stability symbol, enhancing social connections, and fostering outdoor activities. Interfaith engagements compensated for mobility limitations, promoting physical movements, and enhancing psychological well-being. Intergenerational dependency provided practical support, fostering independence for older adults. Leveraging cultural connections for healthcare showcased adaptability and resourcefulness.

Active aging often relies on a robust social support network, which includes stable friendships (Baeriswyl & Oris 2023; O'Dare et al. 2019). Homeownership has been linked to a more fulfilling life in later years (Druta et al., 2023) and fosters increased social ties and access to social capital (Manturuk, Lindblad, & Quercia, 2010). Yung and colleagues (2016) underscore the importance of a pleasant environment for engaging activities among older adults. Conversely, studies have indicated that discomfort and frustration within an environment can lead to social withdrawal, limiting activities and potentially causing depression (Heinrich et al., 2016). Giraldez-Garcia and colleagues (2013), in a study examining older individuals' perceptions of their local community environment and health, found that these perceptions were intricately connected to health outcomes in older adults. The study found that areas with single-family housing are associated with pleasant environments, and many participants aspire to become homeowners. However, the number of homeowners is low among the participants. In fact, achieving homeownership is a long task for this demographic group as those that have achieved it still carries the financial strain into retirement.

The prevalence of rented apartments as the housing choice for many is marked by a constant influx and outflow of residents, posing a challenge to forming stable social connections and leading to social isolation. Structural issues within these homes induce anxiety and impede movement, while inadequate lighting diminishes confidence in indoor exercises. Limited accessibility indoors and

outdoors confines mobility, discouraging physical activities. Difficulties arising from poor street conditions, lack of resting spots, and fear of crime further hinder walking, intensifying social isolation. These challenges, intricately connected and multifaceted, severely compromise the physical and mental well-being of African immigrant older adults in the community. Previous studies (Henderson & Ainsworth 2003; Belza et al. 2004; Van Duyn et al. 2007) have affirmed these struggles. Despite the emotional support derived from shared living spaces, interfaith interactions, and intergenerational dependencies, pervasive fear of violence and high crime rates perpetuate constant anxiety, limiting outdoor activities and interactions. Consequently, these limitations result in restricted social networks, contributing to feelings of loneliness and vulnerability, thereby impeding active aging efforts.

Overall, the findings of this study outlined how economic, physical, social, and environmental challenges significantly impacted active aging among African immigrant older adults. Participants employed a range of coping strategies, emphasizing the importance of community ties, cultural connections, and adaptive behaviors in enhancing their active aging experiences despite numerous challenges (see figure 16).

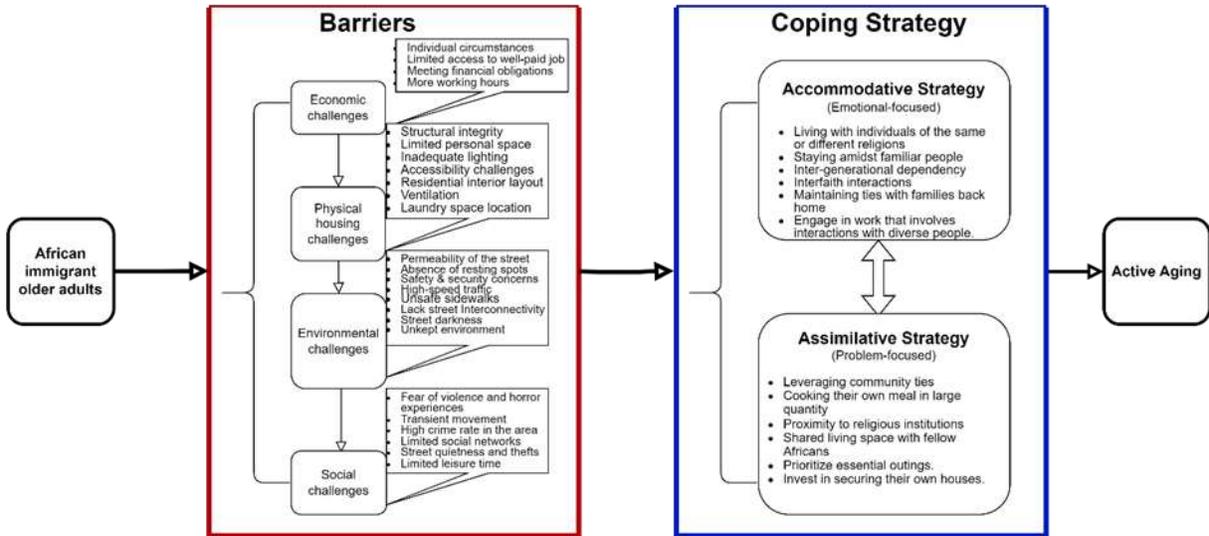


Figure 16: Showing the participants’ process of aging actively in their residential environment.

The design recommendations

The coping strategies adopted by African immigrant older adults to overcome the challenges of active aging not only empower them to maintain a sense of control and emotional well-being but also foster social engagement and a sense of community, as evidenced by several studies earlier mentioned. However, enhancing their housing and living environment can mitigate the negative impact on their ability to age actively and further enrich their social interactions within the community. One effective approach that could promote active aging among older adults involves establishing deliberately the concept of intergenerational contact zones (Thang 2015) within residential complexes. These zones, comprising communal spaces, gardens, or shared activity areas, encourage regular interactions among older adults, families, and younger individuals residing in the same community (Molina-Garcia & Queralt, 2017). Integrating such spaces fosters a vibrant sense of community and enhances the overall active aging experience for older residents.

In multi-floor residences, several underutilized spaces, including corridors, stairwells, rooftop terraces, basements, laundry rooms, and courtyards, hold the potential to serve as intergenerational contact zones within residential areas. Thoughtful design strategies can transform these spaces into vibrant hubs for social interaction and community engagement. Corridors can be reimagined with strategic seating, artwork, and interactive displays, encouraging informal meetings which could make the older adults feel safe and fostering a sense of social bonds among residents (See figure 17). Addressing the mobility concerns related to stairs, implementing designs that prioritize wall ornamentation, safety, visibility, and aesthetics by introducing ergonomic elements such as handrails and stair lift can ameliorate older adults' accessibility challenges (see figure 18).



Fig 17: Sample of an interactive corridor

Fig 18: Sample of a supportive stairs

Additionally, rooftop terraces and balconies can be transformed into communal areas, featuring comfortable seating, greenery, and recreational elements, making them popular gathering spots that enhance social connections and active aging experiences among residents (see figure 19). These design interventions not only optimize underutilized spaces but also contribute significantly

to promoting social interactions and physical activity within multi-floor residential communities (Dines et al. 2006).



Fig 19: Sample of a roof garden exploited for social interactions.

In residential buildings, the basements used for laundry rooms and storage purposes hold untapped potential as vibrant communal areas. Marcus and Francis (1997) delve into this potential, suggesting the transformation of basements into communal lounges or hobby rooms. By incorporating essential elements such as proper lighting, ventilation, and comfortable furnishings, basements can evolve into inviting spaces for a variety of social activities, from children's play areas to hosting social events, exercises, and games (Chang & Kim 2021). Similarly, laundry rooms can be reimagined as social hubs by integrating elements like benches, picnic tables, interactive play structures, reading nooks, or small coffee corners. These additions create spaces

where residents can engage in conversations, read, or work on laptops while waiting for their laundry, significantly enhancing the overall living experience within residential communities.

Research conducted by Douglas, Lennon, and Scott (2017) emphasizes the positive impact of accessible green spaces within residential areas, highlighting their ability to encourage social engagement, reduce stress, and promote physical well-being. While many multi-floor residences utilize central courtyards for natural lighting and ventilation purposes, these spaces can be further optimized as accessible green areas (see figure 20). Courtyards and patios, beyond their functional roles, can serve as hubs for social activities, fostering a sense of community. Entrance areas, when enhanced with small art exhibitions or music performances, create welcoming environments that facilitate social interactions. These spaces offer ideal settings for gardening, outdoor games, picnics, and various social gatherings.



Fig 20: Sample of a courtyard exploited to support social interactions.

Aligning with the principles of intergenerational contact zones, incorporating these activities encourages relationships and collaboration among different age groups. By tailoring these spaces

to meet the needs and preferences of older adults, they can be transformed into vibrant, inclusive areas that promote active aging, social connections, and overall well-being.

The study limitations

This study is subject to several limitations that necessitate careful consideration. One significant limitation lies in our participants, individuals hailing from various African countries who predominantly communicate in their native languages for enhanced expression and understanding within their community. Translating these languages into English, while preserving their nuances, proved challenging due to inherent disparities between the languages.

Furthermore, the sampling methods employed, namely snowball and convenience sampling, lack the randomness inherent in systematically generated samples, making them inherently biased. The necessity of utilizing these methods stems from the categorization of African immigrants alongside African Americans and Caribbeans as part of the broader ‘black’ demographic in the United States. This classification obscures the distinct size of the African immigrant population, making accurate differentiation challenging.

Additionally, the unique challenges faced by this immigrant group, such as immigration-related difficulties, compel many to adopt a low-profile lifestyle, limiting their visibility and complicating the identification process. Consequently, the snowball sampling method used, while practical, is inherently biased and lacks the rigor necessary for broad generalizations to a larger population. Given these limitations, it is imperative to acknowledge these constraints when interpreting the study’s findings. Addressing these challenges in future research endeavors could enhance the accuracy and applicability of the results to a wider context.

Chapter 6 - Conclusion

In the realm of gerontology and urban planning, the significance of understanding the intricate dynamics between housing environments and active aging cannot be overstated. This comprehensive study, focused on African immigrant older adults residing in the south side of Chicago, has illuminated critical insights into this relationship. As we conclude this exploration, it becomes evident that addressing the housing challenges faced by this demographic group is pivotal in promoting active aging and enhancing their overall quality of life.

A central concern that emerged from this research is the affordability of housing. For African immigrant older adults, housing affordability significantly influences their choices, opportunities, and overall well-being. The study underscores the pressing need for diverse and innovative housing options that cater to varying income levels. Integrating age-friendly features and universal design principles is essential, ensuring that housing environments are not just spaces to inhabit but empowering hubs that facilitate active, independent living.

Adequate, affordable, and safe mobility options are paramount for active aging. Public transportation systems must be not only suitable but also well-connected, fostering a sense of independence and accessibility. The study emphasizes the importance of connectivity between residential areas and key destinations such as retail centers, healthcare facilities, and recreational spaces. Seamless mobility ensures that older adults can engage with their communities, participate in social activities, and access essential services.

Beyond physical infrastructure, the social fabric of communities plays a vital role in active aging. Social inclusion, intergenerational interactions, and opportunities for participation and employment are integral components of this tapestry. Community activities, volunteering

initiatives, and civic participation not only create social capital but also combat social exclusion, nurturing a sense of belonging and purpose among African immigrant older adults.

One of the standout revelations from this study is the necessity for culturally sensitive interventions. Understanding the unique cultural backgrounds, traditions, and aspirations of African immigrant communities is essential in crafting housing solutions that resonate. Policymakers, urban planners, and community developers must collaborate to create initiatives that respect cultural diversity and empower older immigrants to age actively while preserving their cultural heritage.

As we move forward, it is imperative that the findings of this research translate into actionable initiatives. Public policies need to be crafted with a keen understanding of the challenges faced by African immigrant older adults, ensuring that these policies are inclusive, empathetic, and responsive. Community engagement becomes central; involving older adults in the decision-making processes empowers them and ensures that their voices are heard.

In conclusion, this study serves as a clarion call for transformative change. By addressing housing affordability, enhancing mobility options, and fostering social connections in culturally sensitive ways, we can create communities where African immigrant older adults not only age actively but also thrive. Active aging is not merely a concept; it is a right that every individual, regardless of their cultural background, should enjoy. It is through collective efforts, informed policies, and compassionate initiatives that we can turn this vision into a tangible reality, fostering vibrant, inclusive communities where active aging knows no cultural bounds.

Future Research

Building upon the rich tapestry of insights garnered from the present study, there are several promising avenues for future research that can further illuminate the nuanced dynamics of housing, active aging, and overall well-being among African immigrant older adults in Chicago.

1. Longitudinal Studies: Conducting longitudinal studies tracking the housing experiences and lifestyles of African immigrant older adults over an extended period could provide invaluable data. Long-term observations would enable researchers to discern patterns, trajectories, and evolving needs, allowing for more nuanced policy recommendations.

2. Intersectionality and Health Disparities: Exploring the intersectionality of race, ethnicity, gender, socioeconomic status, and health in the context of housing and active aging is essential. Research that delves deeper into health disparities among different African immigrant communities can shed light on specific health challenges and inform targeted interventions.

3. Culturally Tailored Interventions: Future studies should focus on the efficacy of culturally tailored housing and healthcare interventions. Understanding how interventions rooted in cultural competence impact the active aging experiences of African immigrants can guide the development of more effective and sensitive programs.

4. Intergenerational Dynamics: Investigating the intergenerational dynamics within African immigrant families and communities is vital. Understanding how older adults' housing situations influence the well-being of their children and grandchildren can provide holistic insights into the family structures, societal bonds, and support systems that foster active aging.

5. Technological Integration: Exploring the integration of technology in housing environments could be a transformative area of research. Studying how smart home technologies, telemedicine,

and digital connectivity impact the active aging experiences of African immigrant older adults can pave the way for innovative solutions that enhance independence and social engagement.

6. Policy and Advocacy Research: Research focusing on policy analysis and advocacy strategies is crucial. Assessing existing policies related to housing, healthcare, and social services and identifying gaps or areas for improvement can inform evidence-based policy recommendations. Additionally, advocacy research can empower African immigrant communities to voice their needs and influence policy decisions directly.

7. Comparative International Studies: Comparative studies with African immigrant communities in other global cities could offer cross-cultural perspectives. Understanding how housing policies and social support systems differ globally and their impact on active aging can provide valuable insights for Chicago and similar urban centers.

8. Community-Engaged Research: Emphasizing community-engaged research methodologies is essential for future studies. Collaborating closely with African immigrant communities ensures that research questions, methodologies, and outcomes resonate with the lived experiences and aspirations of the older adults. Community partnerships can also facilitate the implementation of research findings into actionable community programs.

In summation, future research endeavors should embrace a holistic and interdisciplinary approach. By delving into the multifaceted intersections of culture, housing, health, and social dynamics, researchers can contribute significantly to the creation of inclusive, supportive environments where African immigrant older adults not only age actively but also thrive emotionally, socially, and physically.

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Appendices

Appendix A - Age-friendly communities features of Active Aging

Physical element	features	Key studies
Spatial Planning	<ul style="list-style-type: none"> • Holistic planning for the entire life course • Diverse land use zoning • Higher density and adaptive re-use • Community participation • Cross-sectoral collaboration 	<ul style="list-style-type: none"> • Beard & Petitot, 2010; Colangeli, 2010; Lui et al., 2009; Rosenthal, 2009 • Ball, 2012; Golant, 2014; Greenfield, Oberlink, Scharlach, Neal & Stafford, 2015; Rosenberg & Everitt, 2001 • Fitzgerald & Caro, 2014; Menec, Means, Keating, Parkhurst & Eales, 2011; Plouffe & Kalache, 2010 • Buffel et al., 2014; Gonyea & Hudson, 2015; World Health Organization, 2002 • Lehning et al., 2012; Steels, 2015; World Health Organization, 2007
Housing	<ul style="list-style-type: none"> • Diverse and innovative options across income levels. • High integration (mixed use development) • Density, walkability • Universal design principles – adaptive housing 	<ul style="list-style-type: none"> • Age-friendly housing and neighborhoods: (Burton et al., 2011; Pynoos, Caraviello & Cicero, 2009b) • Ageing in place: (Andrews & Phillips, 2005; Hanson, 2005; Iecovich, 2014; Liu & Easthope, 2012; Matlo, 2013; Olsberg & Winters, 2005) • Housing Design:(Hwang, Cummings, Sixsmith & Sixsmith, 2011; Jones et al., 2008; Rosenfeld & Chipman, 2008) • Housing Affordability: (Beer, Kearins & Pieters, 2007; Costa-Font, 2013; Lux & Sunega, 2014) • Housing transitions: (Beer & Faulkner, 2011; Easthope, 2004; Mulder & Lauster, 2010; Pinnegar et al., 2012)
Mobility	<ul style="list-style-type: none"> • Public transport: suitable, affordable, frequent service and safe • Various transport options (public transport, walking, cycling) • Connectivity with key destinations: housing, retail, services, recreation 	<ul style="list-style-type: none"> • Mobility: (Davey, 2007; Engels & Liu, 2012; Mackett, 2015; Murray, 2015; Musselwhite et al., 2015; Nordbakke & Schwanen, 2013; Satariano, Guralnik, Jackson, Marottoli & Phelan, 2012; Schwanen, Banister & Bowling, 2012; Webber, Porter & Menec, 2010) • (McCormack, Giles-Corti & Bulsara, 2008; O'Hern & Oxley, 2015; Rosenbloom, 2009) • Connectivity: (Lee, Zegras & Ben-Joseph, 2013; McCormack et al., 2008; Quastel, Moos & Lynch, 2012)

Physical environment	<ul style="list-style-type: none"> The environment conducive to active transport (walking, cycling) taking into account the needs of older adults. Integrated planning for natural, built, and social environments 	<ul style="list-style-type: none"> Health: (Burton et al., 2011; Giles-Corti & Donovan, 2002; Kinsella et al., 2013) Environment: (Phillips, Siu, Yeh & Cheng, 2005) (Giles-Corti & Donovan, 2002)
Social elements		
Social environment	<ul style="list-style-type: none"> Social inclusion Non-ageist society Intergenerational and family interactions 	<ul style="list-style-type: none"> Social capital: (Hodgkin, 2012; Rossi, Boccacin, Bramanti & Meda, 2014; Scharf & Keating, 2012) Social exclusion: (Cann & Dean, 2009; Grenade & Boldy, 2008; Smith, 2009)
Opportunities for participation and employment	<ul style="list-style-type: none"> Employment and volunteering options Civic participation 	<ul style="list-style-type: none"> Employment: (Appannah & Biggs, 2015; Serban, 2012; Taylor, Pilkington, Feist, Dal Grande & Hugo, 2014) Volunteering: (Gonzales & MorrowHowell, 2009; Greenfield, Scharlach & Davitt, 2016) Community participation: (T. Buffel et al., 2012; Everingham, Warburton, Cuthill & Bartlett, 2011; Warburton, Everingham, Cuthill, Bartlett & Underwood, 2011) Civic participation: (Tine Buffel et al., 2012)
Informal and formal community supports and health services	<ul style="list-style-type: none"> Access to appropriate services 	<ul style="list-style-type: none"> (Gilroy, 2008; Joseph Rowntree Foundation, 2004) Health: (Jeste et al., 2016; Stephens, Breheny & Mansvelt, 2015)
Communication and information	<ul style="list-style-type: none"> Access to information communicated in an appropriate way. Support with learning and new media 	<ul style="list-style-type: none"> (Yoon, Cole & Lee, 2009) Learning: (Mark, Bissland & Hart, 2016; Neal, DeLaTorre & Carder, 2014; Pstross et al., 2016; Talmage, Mark, Slowey & Knopf, 2016)

Table 1: Physical and Social element in Active Aging

Source: Berhanemeskel, 2017

Appendix B - Interview guide

The questions are based on the eight (8) measures of accessing active living of an individual.

1. Housing

Can you walk me through a typical day at home and tell me what activities and tasks you usually engage in?

2. Interaction with outdoor spaces

Can you describe how you interact with your immediate surroundings on a daily basis? For example, do you enjoy spending time outdoors or indoors? Do you have any favorite spots in your home or neighborhood that you like to visit? How do you make the most of the space around you to relax or recharge?

3. Social participation

Can you tell me about your social lifestyle and how often you usually go out to socialize with friends or meet new people? What are some of the activities or places that you enjoy when you go out with others?

4. Transportation

How do you typically get around your daily activities, such as work or running errands? Do you use any mode of transportation, such as driving, biking, walking, or taking public transportation?

5. Respect and social inclusion

Do you engage in community activities or get to know your neighbors? How do you handle differences among those around you?

6. Communication and Information

How do you stay informed and communicate with others in your living environment? Do you use local news sources or social media, and how do you connect with neighbors to share information or updates?

7. Community support and health services

Have you ever needed to access community or health services in your living environment? If so, can you describe your experience in finding and receiving support? Were there any particular resources or organizations that were helpful to you, and how did you go about connecting with them?

8. Civic participation and employment

Have you participated in any community activities or held a job in your local area? What was your experience like, and how did you get involved?

Appendix C - Solicitation for participation

Dear [Recipient],

I am writing to request your participation in an important study that aims to evaluate the perspectives of African immigrants on their housing environment and how it affects their participation in physical activity throughout their lifetime. The ultimate goal of this study is to promote active aging and enhance the quality of life of African immigrants living in the south side of Chicago.

To qualify for participation, you must be an African immigrant aged 50 years or above, living in the south side of Chicago, able to communicate fluently in English, and comfortable expressing yourself.

Your participation in this study is entirely voluntary, and it will involve a one-time meeting where you will be asked about your housing experiences. The meeting will take place at a location of your choice, preferably your residence or anywhere else you feel safe and secure. The interview will last for a maximum of one and a half hours and will be recorded. Please note that your identity will remain anonymous, and all information provided will be handled ethically and with strict confidentiality.

If you are interested in participating, please contact Omotayo Onanuga either by replying to this email or by phone at 785-###-####.

Thank you for considering participating in this vital study.

Sincerely,

Omotayo Onanuga

Appendix D - Study debrief.

The aim of this study is to collect information from African immigrant adults aged 50 and over who have lived in housing environments in the United States. The information gathered will be used to develop a theory that explains the underlying processes and social structures that shape their experiences. The study seeks to understand the relationship between the structure of their housing environments and their health decline, which has been previously identified in research. The ultimate goal is to promote active aging and enhance the quality of life of African immigrants residing in the south side of Chicago. To be eligible for participation, you must be an adult African immigrant who is 50 years or older, have lived in the neighborhood for at least five years, be able to communicate fluently and feel comfortable expressing yourself.

Please be informed that your participation in this study is entirely voluntary, and it will entail a single meeting where you will be requested to provide information about your experiences with housing and neighborhood environments. The interview is expected to last for a maximum of one and a half hours, during which time audio recording and note-taking will take place. It is important to note that your identity will remain anonymous, and all information provided will be treated with the utmost ethical standards and strict confidentiality. Please be aware that there is no financial compensation for participating in this study, but the results will contribute to the development of policies and designs for homes and communities aimed at improving the living conditions of African immigrant populations.

It is important to note that at any point during the interview, should you feel uncomfortable or decide to withdraw from the study, you have the right to do so without incurring any penalty or loss. To participate in the study, you will need to sign a consent form indicating that you understand the purpose of the study and are voluntarily agreeing to participate.

Appendix E - Informed Consent Form

PROJECT TITLE: Active Aging: Retrofitting Housing Environment for African Immigrants
Older Adults in America

PRINCIPAL INVESTIGATOR: R. Todd Gabbard

CO-INVESTIGATOR(S): Omotayo Onanuga

CONTACT NAME AND EMAIL FOR ANY PROBLEMS/QUESTIONS: Omotayo Onanuga
oaonanuga@ksu.edu

IRB CHAIR CONTACT INFORMATION: *(This information is for the subject in case he/she has questions, or needs or wants to discuss any aspect of the research with an official of the university or the IRB)*

- Lisa Rubin, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.
- Brad Woods, Associate Vice President for Research Compliance, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

PROJECT SPONSOR: Department of Architecture, College of AP & Design

PURPOSE OF THE RESEARCH: This study aims to understand the perspective of African immigrants to active aging and its influence on their participation in physical activity throughout their lifetime. By understanding the perspectives of African immigrant older adults, we can better design interventions to promote active aging and reduce the risk of a sedentary lifestyle.

PROCEDURES OR METHODS TO BE USED: There will be a set of interview questions to answer and audio recording. Observations of the housing and environment in the study area will be conducted by taking pictures of the surrounding environment and social facilities mentioned by respondents.

LENGTH OF STUDY: One and half hour maximum

RISKS OR DISCOMFORTS ANTICIPATED: No known risk.

BENEFITS ANTICIPATED: The local officials will be provided information on the process of retrofitting the housing environment to facilitate community planning and design for healthy living.

EXTENT OF CONFIDENTIALITY: Confidentiality will be maintained, and pseudonyms will be assigned for all participants in the study. All data and information gathered will be stored in a password protected workstation, and devices will be housed in a locked cabinet.

TERMS OF PARTICIPATION: I am aware that the project I am about to participate in is a research study, and that my participation is completely voluntary. Moreover, I understand that I have the right to withdraw my consent and cease participation at any time during the study without facing any penalty, loss of benefits, or academic standing to which I may otherwise be entitled. By signing below, I confirm that I have carefully read and comprehended this consent form and agree to participate in the study under the described terms. My signature also indicates that I have received a signed and dated copy of this consent form.

Participant: _____

Name: _____

Participant: _____

Signature: _____

Witness to Signature: _____

(project staff): _____