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"Take a walk in my shoes": A narrative account of the experiences of community mobility among older adults living with age-related vision loss (ARVL)

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences

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Abstract

This study aimed to co-construct the accounts of older adults with age-related vision loss (ARVL) regarding their community mobility experiences. The study was based on a constructivist paradigm, and the collection and analysis of data adopted the narrative methodology. Participants included four older adults with one of the following conditions: macular degeneration, glaucoma, and/or diabetic retinopathy; all were at least 60 years old. Participants were recruited from Optometry clinics in London, Ontario, with one participant recruited using snowball sampling. The collection of data comprised three narrative interviews, all of which were audio recorded. These interviews took place over the phone as per the older adults' request. This study conducted thematic and structural narrative analyses (Riesman, 2008) on participants' stories and identified six dominant themes, including: (1) *Moving from private vehicles to public transport*, (2) *Elements of the physical environment act more as barriers than facilitators to community mobility*, (3) *The use of assistive devices and compensatory strategies to support community mobility*, (4) *Social networks and their influence on community mobility*, (5) *Ableist perceptions of older adults with ARVL & its impact on community mobility*, and (6) *Community mobility barriers stemming from political factors*. The research findings expand our understanding of the community mobility experiences of older adults with ARVL and highlight the benefits of more inclusive age-friendly environment in facilitating their community mobility. The study's future directions and implications are also discussed.

Keywords: Age-related vision loss, older adults, environment, community mobility

Summary for Lay Audience

This study aimed to understand the community mobility experiences of older adults living with age-related vision loss (ARVL). Four older adults aged 60 and older were interviewed, and they shared stories about their community mobility experiences since their vision loss diagnosis. Analysis of the older adults' narrative accounts revealed six themes, including: 1) Moving from private vehicles to public transport, (2) Elements of the physical environmental physical infrastructure act more as barriers than facilitators to community mobility, (3) The use of assistive devices and compensatory strategies to support community mobility, (4) Social networks and their influence on the community mobility of older adults with ARVL, (5) Ableist perceptions of older adults with ARVL & its impact on community mobility, and (6) Community mobility barriers stemming from political factors. The research findings may inform future research, government policies, and the general public regarding inclusiveness in the environment holistically in order to meet the community mobility needs of older adults with ARVL.

Acknowledgments

Firstly, I would like to express my profound gratitude to my supervisor, Dr. Colleen McGrath, who agreed to supervise me and has seen me through these two years of my master's program. You have been very patient and understanding, consistently guiding me through the rigours of this academic journey. You will remain at the top of my list of the people who have had the most positive impact on my life. Thank you for the opportunity you gave me and for modelling what it looks like to be a successful woman in academia. Secondly, I am immensely grateful to my committee members, Dr. Debbie Laliberte Rudman and Dr. Carri Hand, who helped refine my thesis throughout the writing process. I deeply appreciate your time, expertise, and how you made me apply critical thinking during the course of this study.

I am dedicating this thesis to my late dad, Prof. Emmanuel Ejike, a distinguished university professor until his demise last year. You practically moved the heavens and the earth to see that I got to this point in life. I am deeply saddened that you didn't get to see me finish; however, I know that I have made you proud. To my mom, you have been my rock-solid support and have remained steadfast in providing me with healthy doses of love and care. To my husband, you have been the wind beneath my wings. Thank you for lending your ears when I needed to vent and your shoulders when I needed to cry. To my two beautiful boys, thank you for understanding during those times when mummy had to do her schoolwork and couldn't play with you. Thank you for loving mummy unconditionally.

I would also like to express my gratitude to the staff of the Optometry clinics in London for supporting my recruitment efforts. I am also deeply grateful to the four participants who gave me their time and shared their stories with me throughout this study. Without you, this work would not have been complete.

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Chapter 1: Introduction

Vision is an amazing sense that lets us find our way around and understand what we see by processing light, colours, shapes, movements, and quiet. Vision is important for understanding our surroundings, making friends, and enjoying beautiful things like clouds and books. What happens when this sensing ability gets worse over time, like how candlelight goes out slowly? The change from being able to see to not being able to see is not only a physical challenge but also an emotional and mental adjustment that can change how a person sees life.

Imagine being able to see and then gradually losing your vision. Not only does not being able to see change how you see things, but it also changes how you move around and connect with the world. Familiar places change into places you don't know, and busy streets become tangled webs of confusion and uncertainty, and things that used to be easy, like crossing the street or taking public transportation, become hard to do.

When someone goes from being able to see to losing their vision, they feel like they've lost something, but also like they've learned something new. They have to learn new ways to connect with their surroundings and use senses they may not have used much before. This trip isn't just about missing a sense; it's also about finding new ways to feel, understand, and move through the world. As we learn about this big change and how it affects people's ability to move around in their communities, we will look into stories of loss, struggle, success, and adjusting. Together, we'll find our way through this maze and shed light on a trip that happens in the dark.

1.1 Problem Statement, Significance, Rationale

According to the World Health Organization (2021), projections indicate that the global populace of individuals aged 60 years and above will increase twofold by 2050, accounting for 2.1 billion of the world's inhabitants. In the context of industrialized nations, such as Canada, there has been a reported increase in the incidence of vision loss with advancing age. Specifically, statistics indicate that approximately 21% of Canadians aged 85 years and above have been diagnosed with age-related vision loss (ARVL) (Deloitte, 2021). In addition, the Canadian Association of Optometrists (2020) has reported that the incidence of vision loss among older adults in Canada is projected to increase twofold over the next 25 years. Therefore, it is imperative that forthcoming research initiatives prioritize the exploration of how older adults are coping with the challenges associated with ageing in the context of vision loss.

The term ARVL pertains to a group of medical conditions that are typified by vision loss. These conditions are such that even with the use of corrective lenses or contact lenses, the visual acuity, changes to the visual field, and peripheral vision cannot be restored to the optimal level of 20/20 (McGrath & Corrado, 2019). According to Watson (2001), the etiology of ARVL is frequently associated with diseases such as glaucoma, diabetic retinopathy, and macular degeneration. From an occupational science perspective, previous research has demonstrated that ARVL has a significant negative impact on older adults' occupational engagement and social interaction (Laliberte Rudman and Durdle, 2008; Laliberte Rudman et al., 2016; McGrath et al., 2017; McMullan & Butler, 2019). The term "occupation" lacks a universally agreed-upon definition. However, it is frequently characterized as the routine actions that individuals,

families, and communities engage in to fill their time and imbue their lives with significance and direction (Farias Vera, 2017). The realm of occupations encompasses a variety of activities that individuals are compelled to engage in, desire to pursue, or are culturally obligated to undertake (Farias Vera, 2017). According to Townsend & Polatajko (2007), occupation is comprised of three basic elements, including productivity, leisure, and self-care. Some studies (Berger & Porell, 2008; Crews & Campbell, 2004; Grue et al., 2008) have described the self-care challenges that older adults with ARVL have to face, such as preparing their meals and managing their financial resources. According to Boerner and Wang (2012), Crews and Campbell (2004), and Desrosiers et al. (2009), older adults with ARVL also experience limitations in their ability to participate in leisure activities, including community social events. Although the impact of ARVL on the occupational engagement of older adults varies, documented negative outcomes include an elevated risk of falls, depression, social isolation, and a compromise in their quality of life (Laliberte Rudman & Durdle, 2008; Markowitz, 2006). In a study by Laliberte Rudman et al. (2016), it was demonstrated that environmental characteristics play a significant role in limiting the social engagement of older individuals with ARVL. These characteristics act as obstacles, both physically and socially, to their navigation around their neighbourhoods and interaction within the community. Some of these obstacles may include traffic signals, alterations made to the surroundings, difficulty in recognizing faces, and feelings of insecurity resulting from society's perception of vision loss (Laliberte Rudman et al., 2016).

ARVL has also been associated with a decline in older adults' participation in occupations that require movement around the neighbourhood, otherwise known as

community mobility, such as visits to the physician, shopping, and outdoor exercises (Burton, Clancy & Cowap, 2018). Community mobility is more aptly defined as using any form of transportation system, including walking, bicycling, taxis, and cabs, to get around the community (American Occupational Therapy Association, 2020). Older adults living with age-related vision loss often have to depend on assistive devices, caregivers, and family to move around their neighbourhoods and communities (McGrath & Astell, 2016; Lord, Despres, & Ramadier, 2011; Teitelman & Copolillo, 2005; Burton, Clancy & Cowap, 2018; European Blind Union, 2019).

The limited number of studies that have explored the personal experiences of community mobility among older adults with vision loss (Berger, 2012; Laliberte Rudman and Durdle, 2008) have indicated that older adults with ARVL assess the potential risks associated with community mobility by avoiding certain locations, modifying their daily routines based on environmental factors such as a preference for daytime outings, and engaging in more outdoor activities during summer months to mitigate the risk of falls, injury, and premature mortality. However, Laliberte Rudman and Durdle (2008) recommended that future research should focus on how neighbourhoods can be built and improved to support the community mobility of older adults with ARVL. Therefore, current research efforts must focus on community mobility from the perspective of stories from older adults living with ARVL to better understand their community mobility experiences and advocate for strategies to support their successful navigation through their communities.

This study aims to elaborate on the identified gaps in the literature by expounding on the community mobility experiences of older adults with ARVL and the ways the environment supports or restricts their movement.

1.2 Research Purpose and Question

This narrative study aimed to understand the community mobility experiences of older adults living with age-related vision loss. More specifically, I was interested in understanding the role the environment plays in supporting as well as restricting their community mobility. To achieve that aim, the primary research question that guided the study was: “How do older adults living with age-related vision loss (ARVL) narrate the role of the environment in supporting as well as limiting their community mobility?”

1.3. Defining the Language Used in This Study

It is essential that I ensure the reader has an understanding of the terms used within this study. Therefore, I have defined those terms considered integral to the purpose of this study, including age-related vision loss (ARVL), community mobility, older adults, and environment.

1.3.1. Age-related vision loss (ARVL)

ARVL is an umbrella term used to describe a condition that results from common debilitating eye diseases prevalent in older adulthood, including glaucoma, macular degeneration, and diabetic retinopathy (McGrath & Rudman, 2013; National Eye Institute, 2019a, 2019b; World Health Organization, 2018; Quillen, 1999). Depending on the severity of the condition, each of these diseases can cause varying degrees of visual

impairment (Leat et al., 1999). According to CNIB's (2019) report, age-related eye conditions are the primary causes of blindness and partial sight in Canada. The report also indicates that around 3.43 million Canadians have different forms of glaucoma, age-related macular degeneration (AMD), diabetic retinopathy, and cataracts. Moreover, experts predict that this number will increase twofold by 2031, as per reports by Breslin (2007).

Glaucoma. According to the latest findings of the Canadian National Institute for the Blind (CNIB) in 2022, glaucoma has emerged as the second most prevalent cause of blindness in the elderly population of Canada. Over 250,000 Canadians currently have chronic open-angle glaucoma. In a study by Schuster et al. (2020), glaucoma is defined as a cluster of disorders that share the common characteristic of a gradual decline in the optic nerve, resulting in the loss of retinal ganglion cells, thinning of the retinal nerve fibre layer, and increasing excavation of the optic disc. Glaucoma is frequently described as the covert thief of vision because the primary characteristic of the most prevalent form of the disease is the absence of obvious symptoms, and its damaging impact on the eye is permanent. Consequently, timely identification is advised to avert significant impairment of vision (Lee & Higginbotham, 2005). Glaucoma is categorized into different types based on the pathophysiology of the disease. The classification of glaucoma is based on two main types, namely, primary open-angle and closed-angle glaucoma. Primary open-angle glaucoma (POAG) is the most prevalent form of glaucoma, and it affects 90% of Canadians with the disease (Lee & Higginbotham, 2005).

Figure 1

The picture presented on the right portrays the reduction in peripheral vision that is instigated by the medical condition of glaucoma, as opposed to the picture on the left, which showcases the standard and unimpaired state of vision.



Note. Effects of glaucoma on the visual field, from American Optometric Association website, 2022, <https://www.aoa.org/healthy-eyes/eye-and-vision-conditions/glaucoma?sso=y>

Age-related Macular degeneration (AMD). AMD ranks as the primary cause of blindness and low vision in Canada, affecting approximately one million Canadians, as reported by CNIB (2019). The disease impacts the macula, located at the center of the retina, which is responsible for tasks that require sharp visual acuity, such as recognizing faces and reading (CNIB, 2019; The National Coalition for Vision Health, 2009). Mitchell et al. (2018) provided a comprehensive description of age-related macular degeneration, which is a medical condition characterized by a gradual decline in central vision due to the degeneration of the macula. The disease is classified into two categories, namely, wet and dry AMD. In dry AMD, the retinal cells are thinned out and there is an

accumulation of drusen deposits; it is known for having a remarkably slow progression but, in some cases, deteriorates into wet AMD (CNIB, 2019). Wet AMD is characterized by retinal hemorrhage from leakage of vessels due to abnormal blood vessel growth below the retina resulting in blurred vision and central vision loss (CNIB, 2019). Symptoms associated with AMD include “central distortion while reading, and reduced reading ability under low luminance” (Mitchell, et al. 2018, p. 1148), loss of colour perception, light sensitivity, difficulty recognizing faces, and central vision loss (CNIB, 2007). Figure 2 depicts how AMD affects vision.

Figure 2

The picture on the right depicts the loss of central vision as described in AMD cases while the picture on the left shows normal vision.



Note. Effects of macular degeneration on the visual field, from Mayo Clinic, 2022,

<https://www.mayoclinic.org/diseases-conditions/dry-macular-degeneration/symptoms-causes/syc-20350375>

Diabetic Retinopathy. According to reports by the Canadian Council on Blindness (CCB), the number of individuals in Canada who reported being affected by diabetic retinopathy in 2019 was 116,198 (CCB 2021). Diabetic retinopathy is the most

common complication of diabetes characterized by retinal blood vessel hemorrhage due to swelling and rapid growth of new blood vessels (CCB, 2021). There are two broad stages of diabetic retinopathy namely, non-proliferative retinopathy and proliferative retinopathy (Wang & Lo, 2018). The condition starts with no symptoms in the early stages and progresses to loss of central vision as a result of the marked edema of the macula due to the leakage of the swollen retinal blood vessels (CCB, 2021). In the later stages of the disease, symptoms may include diplopia (double vision), dark spots in the visual field, and floaters (CCB, 2021). Diabetic retinopathy cannot be cured, so treatment involves preserving the vision that is left by using anti-VEGF drugs and laser therapy (CCB, 2021).

Figure 3

The picture on the right depicts the loss of vision that presents with diabetic retinopathy, while the picture on the left indicates normal vision.



Note. Effects of diabetic retinopathy on the visual field from West Hollywood Optometry website, 2023, <https://www.positiveeyeons.com/diabetic-retinopathy.html>

1.3.2. Community Mobility

Community mobility refers to the use of transportation, including walking, bicycling, taxis, wheelchairs, scooters, and cabs, to get around the community (American Occupational Therapy Association, 2023). Community mobility is associated with improved cognitive ability, reduced cardiovascular disease, and an enhanced quality of life in older adults; therefore, it is imperative to look into strategies that will maintain and improve community mobility among older adults (Webber et al., 2010). Zeitler & Buys (2015) highlighted that a major factor that restricts the community mobility of older adults stems from their inability to adopt alternative transportation options due to declining health, psychological difficulty in changing lifelong travel habits, and limited income.

Some studies have documented strategies to support the community mobility of older adults, including providing access to public transit services (trains, buses, taxis) that are accessible and affordable for older adults dwelling in rural communities (Lamana, Klinger & Mirza, 2020). Shuttle buses are a means of community mobility that can be designed as city transportation services that move people from urban centers to rural communities. Older adults will benefit from this option as it will allow them to access medical facilities as well as participate in their desired recreational activities (Rahman, et al. 2016). The utilization of ride-share services is an exemplification of a strategy aimed at facilitating convenient access to amenities, such as shopping facilities, for older adults, consequently enhancing communal mobility (Marriot, 2010). According to Freund et al. (2020), these services enable older adults to collaboratively accomplish their routine tasks and cultivate social connections with fellow members of the community. According to

Choi et al. (2019), Kim (2011), Lehning (2014), and Womack, Isaksson, and Lilja (2016), the provision of paratransit services caters to the community mobility requirements of older adults by offering customized curb-to-curb and door-to-door transportation services. Mulry et al. (2017) demonstrated the importance of faith-based transit services in their study. They highlighted that social participation, improved outdoor autonomy, and increased engagement in leisurely activities were some of the advantages of faith-based transit services. The study noted that there was a positive shift from fear to confidence, a decrease in social isolation, and enhanced levels of peer support (Mulry et al. 2017).

1.3.3. Older Adults

There have been a lot of controversies as to how to define people in the older adult demographic. According to the United Nations, an older adult is a person who is 60+ years of age (United Nations Refugee Agency, 2018). Going by some of the existing literature related to older adults and vision loss, I decided to use some of the commonly used terms to address older adults. These terms include older people (Abdi et al. 2019; Marston et al. 2019; Hatcher et al. 2019; Fjell et al. 2021), older adults (Zhang et al. 2022), and seniors (Clarke et al. 2010). The terms will be used interchangeably throughout this thesis to portray older adults with ARVL as significant members of the populace.

1.3.4. Environment

According to a study by Wahl and Weisman (2003), the environment is a composite of various influences, including physical, social, organizational, and cultural

factors. The capacity of older adults to regulate the physical characteristics of their surroundings has been found to exert a substantial impact on their participation in social and physical activities (Shumway-Cook et al., 2002; Rantakokko et al., 2015). According to Rantakokko et al. (2015), the determinants of outdoor mobility among older individuals include street conditions, traffic, and distance to services. Additionally, weather conditions were found to impact both the willingness and feasibility of older individuals to engage in outdoor mobility. Furthermore, Shumway-Cook et al. (2002) highlighted that the inability of older adults to navigate the obstacles present in their surroundings may lead to a state of decreased mobility, thereby limiting their independence. Research findings indicate a positive correlation between the presence of environmental obstacles and the deterioration of mobility in the elderly population, which consequently heightens their susceptibility to feelings of isolation (Rantakokko, et al. 2015).

1.4. Researcher Positionality and Reflexivity

Before beginning my Master's program, I practiced Optometry in Nigeria for approximately 7 years and specialized in low-vision rehabilitation. I managed numerous patients who presented with various eye diseases that resulted in low vision; most of my patients were aged 40+. I was always curious as to how they were able to travel from their various locations to attend their eye-check appointments. A good number of patients frequently had to reschedule appointments because no caregiver was available to bring them to their appointments. This piqued my interest in understanding the experiences of older adults living with ARVL and community mobility; thus, I wanted to understand

how ARVL affected their movement within their neighbourhoods and how the environment both supported and also created barriers to their community mobility.

I acknowledge that I came into this research with certain assumptions and presuppositions which I felt were important to be transparent about prior to reviewing the existing literature or beginning my data collection. I will return to these assumptions in the discussion chapter to unpack how the data collection and analysis process has shaped these presuppositions. The beginning assumptions included:

- 1) Older adults with ARVL rely on their caregivers to be able to move around their communities;
- 2) Older adults with ARVL restrict their community mobility to familiar locations within their immediate neighbourhood;
- 3) Infrastructural and physical barriers limit the community mobility of older adults with ARVL within their community; and
- 4) The community mobility of older adults with ARVL can be supported by creating accessible physical infrastructure.

Throughout this study, I maintained a reflexive journal to document how my assumptions have shaped and continued to shape my interactions with the participants. I also met with my supervisor at different points during the study to discuss and acknowledge my preunderstandings, assumptions, beliefs, ideas, and emotions.

1.5. Thesis Outline

This introduction chapter provided rich background information regarding my research and the rationale behind my interest in this study. I provided a description of the key terms that were used throughout the study, including ARVL, community mobility, older adults, and environment. Lastly, I situated myself as the researcher and presented my assumptions and presuppositions before embarking on this study. In Chapter 2, I present a literature review on the community mobility experiences of older adults living with ARVL. In Chapter 3, I explain my paradigmatic position, which governed the research, the methodology I utilized in the study, and the data collection and analytical methods that were applied. In Chapter 4, I present the re-constructed narratives of the participants. Chapter 5 highlights the thematic results I arrived at after a thorough analysis of the participants' narrative accounts. Finally, Chapter 6 will present my interpretation of the study findings, the strengths and limitations of the study, and the implications of the findings on future research, practice, and policy.

Chapter 2: Literature Review

The objective of this chapter is to provide an in-depth overview of the existing literature that is focused on the community mobility encounters of older adults who have been diagnosed with age-related vision loss (ARVL). This chapter aims to elucidate the gaps in the existing literature that reinforce the necessity of this current narrative study.

Community mobility, which refers to the ability of individuals to move around and engage with their community, including accessing services, participating in social and recreational activities, and participating in civic life, is important in the aging process of older adults (Webber et al., 2010). The impact of community mobility on older adults is multifaceted. For example, good community mobility has been linked to better physical health outcomes, improved mental health, and cognitive functioning, as it allows for social interaction and participation in meaningful activities and allows for access to healthcare and other necessary services that can improve the overall quality of life (World Health Organization, 2007)). Conversely, the inability to engage meaningfully in community mobility can present a range of negative outcomes for older adults. One major consequence is social isolation, as older adults may be unable to access community resources and activities that allow them to maintain relationships and a sense of connection with others (Burton et al., 2018). This can impact their mental health and well-being leading to feelings of loneliness and depression, which have been linked to a range of negative health outcomes, including cognitive decline and increased risk of mortality (Webber et al., 2010). Another negative outcome of older adults' lack of community mobility is reduced access to healthcare. Older adults may find it challenging

to get to medical appointments, preventing them from receiving necessary treatment and care (Gingold et al., 2015). This can lead to worsening health conditions and an overall decrease in quality of life. Physical inactivity has also been described as a negative outcome of a lack of community mobility engagement. Physical inactivity can lead to a decline in physical function, such as decreased strength and balance (Buchman et al. 2012) and increases the risk of developing chronic conditions such as obesity, heart disease, and diabetes (Troost et al., 2002).

2.1 Environmental factors that influence the community mobility of older adults with ARVL

The existing research pertaining to the impact of environmental factors on community mobility among older adults with ARVL is predominantly centred on impediments to community mobility rather than facilitators that foster engagement in community mobility (Burton et al., 2018). Older adults living with ARVL often face significant environmental challenges in terms of community mobility, as vision is a key component to navigating unfamiliar environments and obstacles in the neighbourhood. There are several physical and social environmental factors that impact the community mobility of older adults living with ARVL, and these factors could range from the design and accessibility of the built environment to the availability of transportation options and support systems (McGrath 2017; Laliberte Rudman et al., 2016). This literature review will centre on the physical, socio-cultural, and political environmental factors that impact the community mobility experiences of older adults with ARVL. The review will examine how these factors shape the community mobility experiences of older adults

with ARVL, taking into account the complex interplay between the environment and the individuals' community mobility.

2.1.1 Physical environmental factors that shape community mobility experiences for older adults living with ARVL

For the purpose of this study, the physical environment pertains to the built infrastructure in the environment and the spatial characteristics of a geographical area that facilitate and impact transportation systems. The aforementioned comprises of various components, including but not limited to roads, bridges, train tracks, ports, airports, cycling paths, footpaths, traffic lights, terminals for public transportation, parking structures, and signs (Rodrigue, 2023). There is a growing body of ARVL literature (Burton et al., 2018; Berger, 2012; Gallagher et al., 2011; Gerber & Kirchner, 2003; Jin et al., 2019; Laliberte Rudman et al. 2016; McMullan & Butler, 2019; Swenor et al., 2015; Werber & Wong 2010) that has highlighted those physical environmental barriers that older adults with ARVL face which challenge community mobility.

One major physical environmental factor that affects the community mobility of older adults with ARVL is the availability of accessible transportation. Berger (2012) conducted a qualitative research approach involving 26 older adults to understand how older adults with ARVL participate in leisurely activities. A participant in Berger's (2012) study described how difficult it was to get on the subway train through the door closest to her; she had to navigate two large steps to get in, which she found very challenging because of her vision loss. Gerber and Kirchner's (2003) participatory action research revealed that the selection of a neighbourhood to live in by older adults with

ARVL was significantly influenced by the availability of accessible transportation. For example, a participant in Gerber and Kirchner's (2003) participatory action research stated: "blindness does affect the decision on where to live independently. Needing to live where transportation services are available means housing is generally more expensive. I would prefer to live in a more rural setting, but without transportation, that is not a realistic option..."(p.3). In another qualitative study that explored the walking experiences of older adults conducted by Leung et al. (2021), older adults reported a lack of accessible public transportation as a major barrier to their community mobility. This includes buses and trains with insufficient audio cues, as well as a lack of transportation options specifically designed for individuals with disabilities (Leung et al., 2021). The use of public transportation options can be challenging for older adults with ARVL due to factors such as the lack of tactile or braille signage, and the lack of audio announcements (Dalbelko-Schoeny, et al. 2021; McGrath et al., 2017). Furthermore, a grounded theory study involving 21 older adults conducted by Laliberte Rudman et al. (2016) aimed to comprehend social participation as a process that older persons with ARVL negotiate in daily life. In this grounded theory study, it was shown that some older adults with ARVL report difficulty accessing transportation (getting on/off the bus), navigating unfamiliar streets and buildings, and finding their way to necessary services. As a result, some of these older adults with ARVL rely on paratransit or other specialized transportation services, which can be expensive and may not always be available in their community or at the date/time desired.

In addition to transportation, the physical layout of the built environment also plays a role in shaping experiences of community mobility for older adults with ARVL. For

instance, features like poorly maintained sidewalks or a lack of curb cuts can make it difficult for older adults to navigate their community (Gardener, 2013; Dalbelko-Schoeny, et al. 2021). In a critical ethnographic study by McGrath et al. (2017) that aimed to describe how disability is perpetuated by environmental barriers involving 10 older adults with ARVL, it was shown that older adults with ARVL faced infrastructural barriers to community mobility such as traffic signal designs that did not accommodate their mobility needs. A participant in the study explained how difficult it was crossing the road with the amount of time provided at busy crosswalks: “There are such busy streets around here, and they only give you just enough time to get across. As soon as the light changes you gotta be there, ready to go, and the cars are ready to go also when it’s their time. It’s really tight.. They just don’t give you any time and if you’re just a little slow, it’s gonna change before you get across” (p. 61). Furthermore, Van Cauwenberg, et al. (2016) in their qualitative study, explained that crosswalks and intersections can be particularly challenging for older adults, as they require the individual to navigate multiple planes of movement simultaneously. In addition, the condition of sidewalks can significantly impact the community mobility of older adults with ARVL. Poorly maintained sidewalks with cracks, holes, and uneven surfaces, can be difficult for these older adults to navigate safely (Gardener, 2013).

The accessibility of buildings is another physical environmental factor that impacts the community mobility of older adults with ARVL. For example, Leung (2021) highlighted that the layout and design of buildings and physical spaces influence the mobility of older adults with ARVL given that the absence of tactile cues or clear signage can make it difficult for these individuals to navigate unfamiliar buildings. In addition,

the presence of stairs and escalators can limit accessibility. Building entrances and exits can also pose challenges for older adults with ARVL. In addition, the lack of visual cues, such as braille or raised lettering, can be challenging for older adults with ARVL to locate building entrances and exits (Van Cauwenberg, et al. 2016).

Despite the existing research that has highlighted the impact of the physical environment on the community mobility encounters of older adults with age-related vision loss (ARVL), none of these studies have solely focused on community mobility or employed a narrative approach. The utilization of a narrative methodology is poised to facilitate the elicitation of firsthand narrative accounts from participants, thereby promoting storytelling which will give a more in-depth description of a concept (Lieblich et al., 1998). The present study aims to offer a broader understanding of the community mobility encounters of the older adult population with ARVL by utilizing a narrative methodology. Furthermore, some of these studies pertaining to the physical environment are focused on older adults, without incorporating those who have age-related vision loss. The present study aims to support and build upon the existing body of literature by providing a narrative account of community mobility as experienced by older adults with ARVL.

2.1.2 Socio-cultural environmental factors that shape community mobility experiences for older adults with ARVL

The sociocultural environment pertains to a diverse range of societal and cultural factors that exert an influence on cognitive processes, emotional states, and behavioural patterns (Gonzalez and Birnbaum-Weitzman 2020). In several cases, older adults with

ARVL have been shown to rely on family, friends, and neighbours to enable them to carry out daily outdoor activities such as keeping doctor's appointments, going grocery shopping, going to church, and attending social meetings within their communities (Magnus & Vik 2016; Natasi, 2018; Weber & Wong, 2010; Laliberte Rudman & Durdle, 2008). Receiving help from family and friends to engage meaningfully in their communities helps to prevent older adults with ARVL from experiencing a heightened sense of social isolation, thereby contributing to a positive mental health status (Weber & Wong, 2010).

The community mobility of older adults with ARVL can be negatively influenced by socio-cultural environmental factors pertaining to systemic ageism and ableism. This is manifested through the unfavourable attitudes and discriminatory practices that older individuals encounter, as highlighted by Donzetti (2019). The phenomenon of ageism and ableism can take on diverse expressions, such as unfavourable preconceptions regarding the capabilities of older adults, pessimistic dispositions towards their involvement in communal activities, and prejudicial treatment in the domains of occupation and housing (Donzetti, 2019). Some ARVL studies (Berger, 2012; LaliberteRudman & Durdle, 2008; Laliberte Rudmanetal.,2010; MacLachlan, Laliberte Rudman,& Klinger, 2007; Moore, 2000; Moore & Miller,2003) have revealed that despite being able to readily receive support from the people around them, older adults with ARVL were worried about not appearing too dependent on their caregivers. For instance, a participant described her situation, particularly her feelings of being selective about receiving help maintaining her community mobility in order not to overburden people: "You have to depend on somebody to take you every place and I just hate that" (Laliberte Rudman & Durdle,

2008, p.115). In another example, McGrath et., al (2016) conducted a critical ethnographic study to examine the societal prejudices related to aging and disability, and their impact on the definition of successful aging. The critical study revealed that older adults with ARVL have embraced the cultural notion that the ideal manifestation of an older person is one who exhibits complete self-sufficiency, autonomy, and independence. Therefore, the study's participants endeavoured to reduce their reliance on external support, perceiving such reliance as not only unfavourable but also morally objectionable.

In addition, Wang & Boerner (2008) conducted a cross-sectional qualitative study that aimed at understanding the nature of challenges in relationships experienced by older adults with ARVL. The study revealed that older adults with ARVL frequently faced significant obstacles in social settings. These difficulties stemmed from the lack of comprehension among other people regarding the implications of their visual impairment. Consequently, the older adults with vision loss were either underestimated or overestimated in terms of their abilities by people. In Wang & Boerner's (2008) study, a participant explained their experience with ableism: "The big thing is how I'm perceived- when I first tell others that I have visual impairment, they either feel overly sorry for me or they try to overcompensate, or they build distance from me..." (p.819).

The existing research has concisely explained the relationship between the socio-cultural environment and the occupational engagement of older adults with ARVL. However, it is noteworthy that only two studies, McGrath et al. (2017) and Laliberte Rudman et al. (2016), have delved into this subject matter within the context of community mobility. The present narrative study aims to expand and reinforce existing

scholarly discourse by defining the ways in which the socio-cultural environment either facilitates or impedes the community mobility of older adults with ARVL.

2.1.3 Political factors that shape community mobility experiences for older adults with ARVL

Some ARVL studies, albeit a limited number, have analyzed the impact of the political environment on the community mobility of older adults with ARVL and how that acts to either support or restrict community mobility (Burton et al., 2018; Laliberte Rudman et al., 2016; McGrath et al., 2017). The aforementioned studies have shed light on the inadequacies of the environmental infrastructure in accommodating the needs of older adults with ARVL. For example, the critical ethnography conducted by McGrath et al. (2017) uncovered that system-level challenges, such as inadequately maintained infrastructure (e.g., cracked sidewalks) and insufficient training of bus drivers regarding the needs of older adults with vision loss, contributed to the realization of the older adults fears concerning community mobility, such as a fear of falling. McGrath et al., (2017) posited, in their critical study, that prioritizing education is crucial in mitigating the obstacles encountered by older adults with ARVL as they navigate their surroundings.

In addition, Burton et al., (2018) utilized focus groups to conduct a qualitative study that explored the facilitators and barriers to participation in physical activity by older adults with vision loss. In their study, they highlighted the fact that some older adults expressed discontentment regarding the lack of consultation with them during the erection of certain environmental structures. According to Burton et al. (2018), it is recommended that the government engage in collaborative efforts with older adults who

have age-related vision loss when constructing infrastructures within the environment, in order to effectively address their unique needs. Furthermore, the findings in Laliberte Rudman et al., (2016)'s grounded theory study, highlighted the need for simultaneous endeavours directed towards the creation of environments conducive to older adults. The authors stated that it is imperative that endeavours aimed at enhancing accessibility transcend mere physicality and encompass a multitude of characteristics that impede the cultivation of a sense of ease, security, and inclusion across various environments (Laliberte Rudman et al., 2016).

This study aimed to expand on the current body of literature on age-related vision loss by employing a narrative methodology to elucidate the influence of the political environment on the community mobility encounters of older adults with ARVL.

2.2 Adaptation strategies employed by older adults with ARVL to maneuver community mobility challenges

Vision loss is accompanied by a myriad of challenges which significantly impact community mobility; hence, older adults have devised numerous strategies to manage the challenges and demands of community mobility (Weber & Wong, 2010; McGrath & Laliberte Rudman, 2013; Burton et al. 2018; McMullan & Butler, 2019; Natasi, 2018). Some of these strategies include the use of a sighted guide and mobility aids to facilitate community mobility.

2.2.1 Sighted guide

The existing ARVL research appears to be deficient in empirical studies that examine the efficacy of employing sighted guide techniques to support community mobility. Some reports (CNIB, 2022) have described the manner in which sighted guide is employed to enhance the community mobility of people with vision loss. The present narrative inquiry attempts to elucidate certain efficacious aspects of sighted guide in facilitating community mobility among older adults with age-related vision loss.

Some older adults with vision loss rely on individuals properly trained in sighted guide to help them navigate their environment and regain independence (CNIB, 2022). The training typically involves teaching the individual how to use verbal cues and physical touch to communicate with their guide, as well as teaching the guide how to help the individual navigate the environment both safely and efficiently (CNIB, 2009). During the training, sighted guides learn how to use verbal cues, such as calling out obstacles, such as steps or curbs, and how to use hand signals to indicate when they need to stop or change direction. The sighted guide, who can be a family member, friend, or trained professional, is taught to guide the older adult with vision loss safely and efficiently (Vanderpuye, et al. 2020). The guide is taught how to use clear verbal instructions and physical guidance, such as guiding the individual's arm when crossing the street. The training is typically tailored to the individual's specific needs and abilities, and the goal is to help them regain independence and confidence in their ability to navigate their environment (Vanderpuye, et al. 2020).

Furthermore, organizations such as the Canadian National Institute for the Blind (CNIB), Canadian Council of the Blind (CCB), Canadian Federation of the Blind (CFB), and Fighting Blindness Canada can play a significant role in supporting the community mobility of older adults with age-related vision loss. They provide a range of services and resources, including orientation and mobility training, low vision assessment and therapy, and assistive technology training that can help older adults with age-related vision loss maintain their independence and participate in community activities (Kang et al., 2022).

2.2.2 Mobility Aids

Mobility aids, such as white canes, guide dogs, assistive technology, and scooters, can play a crucial role in supporting the community mobility of older adults with vision loss by providing physical support, increasing stability, and improving safety when navigating different environments.

The White Cane. The white cane comes in two forms, (1) can be used as a navigation tool to identify obstacles in the environment, and (2) can be used as support equipment like a walker (CNIB, 2022). The white cane provides additional support and balance when walking on uneven surfaces and can be used to detect obstacles such as curbs or steps. It can also act as a signal to others that the individual has a vision impairment, which can help to increase awareness and reduce the risk of accidents. This can help older adults with vision loss feel more secure and confident while walking in their community (CNIB, 2022); however, several studies have suggested that some older adults with ARVL would rather do without white canes due to the stigmatization they experience from the public (Li et al. 2019; Fok et al, 2011; Hersh, 2015; Horowitz et al.,

2006; Fraser et al., 2019). For example, in Li et al.'s (2019) study, a participant explained: "The cane, it's a good tool, but [the cane] is one where people felt sorry for me when they saw me with it. More people would come up to me and ask me if they could help me across the street. Could I find the chair for you? I would hear people talking in the distance and they would be saying things like we're 10 feet in front of you" (Li et al., 2019, p.457).

Guide dogs. Guide dogs, also known as service dogs, are specially trained animals that assist individuals who are blind or have low vision in navigating their environment. They can play a crucial role in supporting the community mobility of individuals with vision loss by providing physical and emotional support, increasing independence, and improving safety when navigating different environments (CNIB, 2009). Guide dogs are trained to guide their handlers around obstacles, such as curbs, stairs, and other hazards. They are also trained to navigate busy streets and intersections and are able to find specific locations, such as buildings or bus stops (Li et al., 2019). This allows individuals who have low vision to travel independently and safely within their community. Guide dogs also provide emotional support and companionship to their handlers. They are trained to be calm and focused, which can help to reduce anxiety and improve mood. They also provide a sense of security and can help to reduce feelings of isolation (CNIB, 2009). In addition, guide dogs also allow for greater participation in activities outside of the home, such as going to work, school, or to social events. Guide dogs play a crucial role in helping people with vision loss maintain their independence and mobility. With the help of a guide dog, people with vision loss can navigate their community with greater confidence, which can help to reduce isolation, improve quality

of life, and increase social interactions. (Li et al., 2019; Craigon et al., 2017; Hersh, 2013; Whitmarsh, 2005; Wiggett-Barnard & Steel 2008). Guide dogs are trained to help older adults with ARVL more easily navigate their communities by reacting to dangerous scenarios that may lead to falls or accidents (CNIB, 2009). When describing the importance of guide dogs, an example can be drawn from Li et al.'s (2019) study where a participant explained how using a guide dog improved her community mobility at night: “[Dog guide] does really well at night. I was shut in at night and now I am able to do a whole bunch of stuff at night. I get out now later in the day but before when it was getting dark, I wouldn't get out at all and I would stay in the house or even out in the yard” (Li et al., 2019, p.458).

Scooters. Another mobility aid that some older adults employ to navigate their communities is scooters. Scooters have proven to be a significant enabler of community mobility among older adults with ARVL. Older adults with low vision have justified using scooters because they play a crucial role in maintaining their independence when faced with the challenges of navigating their community as people who are visually impaired (McMullan & Butler, 2019). In McMullan & Butler's (2019) pilot study that explored the experiences of scooter users, an older adult explained that a scooter was the only choice she had: “What else would I do apart from a scooter? I can't walk, I can't hop, I can't skip. It's a really strange question...I grow wings and fly? So, you suggest another way I can get from A to B” (McMullan & Butler, 2019, p.515). Older adults with vision loss who had to use scooters applied a variety of strategies to mitigate the risks associated with scooter use such as sticking to only known routes, going out during the

day to avoid struggling at night, and placing visibility flags on their scooters to avoid being hit by vehicles or pedestrians (McMullan & Butler, 2019).

Assistive Technology. A few studies have posited that assistive technology, when utilized as a mobility aid option, can bolster the community mobility of older adults who are living with age-related vision loss (McGrath & Corrado, 2019; Fuchigami et al., 2022; CNIB, 2009) such as GPS-enabled devices, wearable navigation devices, and some software Apps. GPS-enabled devices, such as smartphones and smartwatches, can play a significant role in improving the community mobility of older adults with age-related vision loss (Real & Araujo, 2019; Bouterra, 2021). These devices can provide spoken directions and can be used with apps that provide information on public transportation schedules and walking or driving routes. One way these navigation devices can support community mobility for older adults with ARVL is by providing spoken turn-by-turn directions for walking or driving. This can help older adults with age-related vision loss to navigate unfamiliar areas and plan their journeys independently (Real & Araujo, 2019). This can increase their confidence and sense of security when going out alone and can also increase their social participation by allowing them to reach their destination safely and on time (Real & Araujo, 2019; Bouterra, 2021). GPS-enabled devices can also support community mobility for older adults with ARVL by providing real-time information on public transportation schedules and routes. This can help them to plan their journeys more effectively and to make informed decisions about when, and how, to travel. This can also increase their independence by allowing them to make use of public transportation even if they have difficulty reading schedules or locating bus stops (Real & Araujo, 2019). Additionally, GPS-enabled devices can support community mobility for

older adults with ARVL by providing information on nearby amenities such as shops, restaurants, and public buildings (Real & Araujo, 2019; Bouterra, 2021).

Wearable navigation devices can support the movement of people with vision loss in several ways (Chen, et al., 2021; Bouterra, 2021). There is still limited research that describes how assistive technologies influence the community mobility of older adults with vision loss; however, a few studies (Chen, et al., 2021; Bouterra, 2021) describe how the use of wearable navigation devices can support the movement of individuals with vision loss around their communities. Location tracking allows the user's location to be tracked in real-time, which can be useful for older adults with ARVL who are faced with the challenge of navigating unfamiliar areas (Chen, et al., 2021). This feature can provide peace of mind for older adults with ARVL and their loved ones, as they can be used to locate a person if they become lost or disoriented.

Some reports have highlighted that other assistive technology, such as some designated software applications, can play a crucial role in supporting the community mobility of older adults with vision loss (CNIB, 2022). These technologies have not been extensively researched with older adult users. Hence, this is an identified gap in the literature focused on the community mobility experiences of older adults with ARVL. For example, “Be My Eyes” is a software application that connects visually impaired individuals with sighted volunteers who can help them complete daily tasks, such as reading labels, identifying colors, or navigating unfamiliar environments (CNIB, 2022), through a live video call. According to the CNIB (2022), with respect to community mobility, some of the advantages of an app such as “Be My Eyes” include that it allows individuals who are visually impaired to receive spoken turn-by-turn directions from

sighted volunteers, which can help them navigate unfamiliar areas with greater ease. Secondly, the app allows people with visual impairments to receive assistance with identifying objects, such as reading labels or determining the colour of an item. This can help them with tasks such as grocery shopping or identifying their belongings. This feature can help them to maintain their independence by allowing them to complete tasks that they would otherwise need assistance with. Thirdly, “Be My Eyes” can provide remote support, which can be particularly useful for people who are visually impaired that live in remote or rural areas. This feature can help them to access support even if they are not able to leave their home. Finally, the app provides a safety net by allowing individuals with visual impairments to request help in case of an emergency or if they feel unsafe. This feature can provide added security and peace of mind for people living with various forms of visual impairments.

2.3 Conclusion

The present chapter expounded upon the existing research, by providing a comprehensive overview of the factors that restrict, or facilitate, community mobility in the older adult population with age-related vision loss. In addition, this chapter shed light on the adaptation strategies utilized by older adults experiencing vision loss to effectively navigate the obstacles inherent in navigating their respective communities. The preponderance of the studies presented in this chapter demonstrated, in one form or another, the influence of the environment on the experiences of community mobility for older adults with ARVL. It is noteworthy that the existing literature does not appear to have utilized a narrative methodology to exclusively focus on community mobility and how the environment exerts a comprehensive impact on the experiences of older adults

with ARVL. To address this gap in the literature, this study used a narrative methodology to unpack the community mobility experiences of older adults with ARVL. Such a focus should help to broaden our understanding of those physical, social, cultural, and political environmental influences that support, as well restrict, experiences of community mobility.

Chapter 3: Research Methodology and Methods

This chapter will focus on the paradigmatic, theoretical, and methodological approaches that framed this narrative study. I will review the procedures for gathering, analyzing, and managing data. I will also provide examples of the ethical standards used throughout the study to safeguard the participants' privacy, rights, and safety as well as a description of the standards used to assess the quality of this research.

3.1 Paradigmatic and Theoretical Approach

3.1.1 Paradigm

This research study was centered on a constructivist paradigm. Guba & Lincoln (1994) define a paradigm as "the basic belief system or world view that guides the investigator, not only in the choices of method but in ontologically and epistemologically fundamental ways" (p.105). While describing a paradigm, Bogna et al. (2019) explained that a paradigm is an orientation or theoretical concept that guides researchers in their investigations. The constructivist paradigm is characterized by the notion that reality is constructed socially and experientially through a transactional relationship between the researcher and the participant. (Guba & Lincoln, 1994). In addition, a constructivist paradigm provides a glaring contrast to the naïve realism adopted in the positivist paradigm by adopting a relativist view that embraces the idea of multiple valid realities (Ponterotto, 2005). Constructivism adopts the hermeneutical approach wherein reality is hidden; hence, the hallmark of constructivism is hinged on the interaction between the researcher and the participant to expose deeper meanings of reality (Ponterotto, 2005).

3.1.2 Ontology

Ontology refers to what can be learned about reality and the nature of reality (Ponterrotto, 2005). Reality is viewed on a scale ranging from relativism to realism, according to Guba & Lincoln (1994). A constructivist paradigm adopts relativism, which alludes to the co-existence of numerous realities; these realities are all regarded as true and vary depending on one's position based on their sociocultural background (Carpenter & Suto, 2008; Ponterrotto, 2005). According to constructivism, the individual's experiences, the social environment, and their interactions with the researcher, and each other, all have an impact on reality (Ponterrotto, 2005). I adopted a relativist ontological approach in this work. This implies that instead of attempting to verify the impartiality or 'truth' of the participants' accounts of their experiences moving around the neighbourhood after experiencing vision decline, I appreciated the varied experiences that they had and acknowledged that their lived realities are socially and historically situated.

3.1.3 Epistemology

According to Ponterrotto (2005), epistemology reveals the interplay between the researcher, who is the knower, and the participant, who is the would-be knower. In epistemology, the nature of the connection between the knower and what is knowable is questioned (Guba & Lincoln, 1994). The "transactional and subjectivist approach" (Guba & Lincoln, 1994, p. 131) that is adopted when a research study is positioned within a constructivist paradigm entails the social construction of reality and the capturing of

participants' lived experiences through their interaction with the researcher (Ponterrotto, 2005).

With the participants in this study, I established a transactional relationship by promoting open communication in which they freely revealed details of their experiences with community mobility. As needed, I probed the participants for more information to elicit details regarding their stories. For example, when they shared the challenges they encountered with community mobility after sight loss, I asked further clarifying questions such as: "How did you feel when crossing that intersection?", "What particular challenge(s) made you stop grocery shopping?", and "What facilitators do you think aid your community mobility?". In order for the participants to acknowledge that I had appropriately characterized their experiences, I continued to establish this transactional relationship by sharing my interpretation of the stories back with them and providing an opportunity for the participants to expand, correct, or remove elements of their story from the re-constructed narrative.

3.1.4 Research Methodology

Methodology refers to the researcher's strategy for acquiring knowledge or determining what can be learned (Guba & Lincoln, 1994). The study utilized a narrative methodology, which corresponded with my ontological and epistemological perspective because a narrative methodology permits the reconstruction of human experience in connection to others and societal systems (Pinnegar & Daynes, 2007).

The utilization of narrative inquiry as a research methodology can facilitate the clarification of distinctive viewpoints and a more profound comprehension of a given

circumstance (Clandinin & Caine, 2013). The narrative interview stands out as the most salient characteristic of the narrative methodology. The present interview format accords significant value to the biographical information narrated by the individual who has undergone the relevant experiences (Chase, 2005). From the point of view of narrative research, stories are not only a method for conveying information about our lives but also a means through which identities and realities are constructed and reconstructed (Richardson, 2000). Listening to the stories that an individual tells about his or her own life is, consequently, one of the most direct routes to reaching that person's constructed reality and understanding the relationship that they have with the outer world (Lieblich et al., 1998). The act of telling one's story to other people is fundamental to the narrative methodology. As a result of the fact that this is an idea that has been appreciated by humans for generations, a narrative methodology has significant historical roots (Pinnegar & Daynes, 2007). The credibility of qualitative research as a legitimate scientific approach was subjected to criticism during the 20th century, which led to the marginalization of narrative methodology as a valid method of inquiry. However, it was only in the past three decades that narrative methodology regained recognition as a legitimate research approach (Pinnegar & Daynes, 2007). Not only do life story narratives enable us to understand how people make sense of their experiences, they also shed light on the sociocultural framework to which the narrator belongs (Smith & Sparkes, 2008).

The onus lies on the researcher to scrutinize the records of their participants, investigate the rationale behind the narrator's choice of storytelling approach, and unravel the deeper connotations that are veiled within the particulars of the narrative (Feldman et

al., 2004). Throughout the interviews, I was able to accomplish this goal by asking well-crafted follow-up questions, which gave me the opportunity for the participants to share greater levels of detail regarding their experiences of community mobility as older adults living with ARVL. The use of narrative methodology in this study was significant due to a lack of previous studies employing this approach in the field of ARVL. Additionally, it allowed for the exploration of participants' personalized perspectives on community mobility experiences. Hence, the inclusion of participants' narrative accounts provided a personalized dimension to the study.

3.1.5 Theoretical Framework

Theories serve as landmarks that researchers may refer back to throughout the research process. When selecting a guiding theory, it is important to ensure that it is consistent with both the paradigm and the methodology of the research project (Musa, 2013). When a researcher chooses to operate within a constructivist paradigm, the theoretical basis of the investigation serves as the lens through which the information gained from the investigation is co-constructed (Grant & Osanloo, 2014). In this narrative study, I used the socio-ecological model as the overarching theoretical framework. The socio-ecological model is a theoretical framework that has been established to explain the complex interactions that take place between people and the environment in which they live (Ma, et al., 2017). The model incorporates the notion that the actions of individuals is shaped by dynamic components, including the individual's engagement with the environment in which they reside (Ma, et al., 2017). The socio-ecological model acknowledges that a person's actions are impacted by a multitude of factors,

encompassing intrapersonal, interpersonal, institutional, community, and policy variables (Kilanowski, 2017).

Individual characteristics such as age, gender, and current health status are examples of intrapersonal factors that have the potential to influence behaviours (Ma, et al., 2017). At the interpersonal level, the social relationships that people have with one another, and the support they receive from their communities, can play a crucial role in shaping behaviour. There are also institutional elements that have the potential to influence behaviour, such as the availability and accessibility of transportation options. A person's actions can also be influenced by community-level variables such as social norms and the resources available in the community. At the level of society, as a whole, conduct can also be influenced by policy issues such as laws and regulations (Ma et al., 2017). The model places an emphasis on the necessity of comprehending the intricate interaction of elements at each level of influence, as well as the manner in which these factors interact to shape an individual's behaviour (Kilanowski, 2017).

The socio-ecological model takes into account not only individual and intrapersonal factors but also environmental factors. It also makes the assumption that behaviour is influenced by multiple interactive factors and that these influences interact with one another across different levels (Leung, et al., 2021; Sallis, et al., 2015). The presence of environmental and policy-level variables distinguishes the socio-ecological model from other health behaviour theories, which place more emphasis on the role of individual determinants (Leung, et al., 2021).

When looking at the data through the perspective of the socio-ecological model, the stories of the participants' experiences with community mobility were analyzed with a focus on those immediate environmental factors influencing community mobility, but also the larger socio-cultural forces at play. This model was purposefully integrated throughout the various stages of the study including framing the interview questions, guiding the thematic analysis, and being used to structure the overarching study theme.

3.2 Research Methods

3.2.1 Study Context

The geographic scope of this study was the city of London, which is located in Southwestern Ontario. The city of London had a population of 494,069 persons in 2016, with 23.3% (115,365) of the population being 60 years of age or older (Statistics Canada, 2019a). The city of London encompasses a diverse range of transportation modalities, which include, but are not limited to, buses, taxicabs and Uber, trains, and airplanes. Throughout the entire duration of the study project, I was situated in London, where I concurrently held a job and pursued full-time academic study.

3.2.2 Inclusion Criteria

To participate in the study, research participants had to: 1) be 60 years of age or older; 2) have a diagnosis of ARVL (including macular degeneration, glaucoma, or diabetic retinopathy); 3) be able to communicate in English; 4) currently reside in London, Ontario and; 5) be willing to share their stories about their experiences with community mobility since being diagnosed with vision loss.

3.2.3 Participant Recruitment

Recruitment flyers were sent out to community centers, optometry clinics, adult day programs, and other retail facilities (such as malls, grocery stores, and libraries). I also connected with the Canadian National Institute for the Blind (CNIB). To gain maximum variation with regard to the ages, ethnicities, genders, and ARVL diagnoses of the participants, I decided to contact a variety of different locations to support participant recruitment. The purpose of this was to attempt to communicate with the greatest possible cross-section of older adults with ARVL in London, Ontario, and this was accomplished by placing recruitment flyers at sites situated in various parts of the city. The present study employed convenience sampling as the sampling technique. Convenience sampling is a non-probability sampling technique that entails the selection of readily available population segments for research purposes (Etikan et al., 2016). The researcher has the capacity to conveniently engage with readily available participants who are relevant to the recruitment objectives of the study (Etikan et al., 2016) and can articulate their experiential knowledge, specifically their encounters with community mobility as older adults with ARVL.

The Western University Non-Medical Research Ethics Board granted approval for this study. A screening questionnaire was completed by interested participants who contacted the research team directly for more information on study participation (See Appendix I). In the recruitment flyer and email, participants were informed of the study's purpose and any risks as well as advantages connected with participation. It also included my contact information and that of my supervisor, allowing people interested in participating to contact the researcher directly. The first participant in the study

volunteered after hearing about the research project from a mutual acquaintance. The final three older adults were enrolled in the study after viewing a recruitment flyer at an optometrist's office.

3.2.4 Study Design and Procedure

Informed consent procedures. All of the participants reached out to the research team by telephone. Using a screening questionnaire, the eligibility of potential study participants was determined (refer to Appendix I or the screening form). If the participant responded affirmatively to all screening questions, the letter of information was read aloud to them and forwarded via email for their reference. Prospective participants had the option of receiving the letter of information by regular mail if they so desired. One of the participants requested that the letter of information be mailed to her and her request was obliged. All the participants' inquiries regarding the research were addressed.

There were two options available to participants for providing their informed consent, including either verbal consent with a witness or written consent. All of the older adults accepted the offer to proceed with verbal consent rather than written consent. I would hypothesize that the ARVL condition of the study participants may have prevented them from reading and signing the written consent form (Bouchard et al., 2003). The letter of information (see Appendix IV) was read aloud to participants to ensure they had a clear grasp of the study protocol. Once verbal consent was granted, I recorded it on the consent form along with the date, their written name, my own signature, and the date as the witness and the researcher. All participants gave process consent at the start of each interview in addition to giving their initial formal consent at the onset of the study.

Data Collection. Each participant participated in three interviews as part of the data collection process, which was guided by Wengraf's (2001) biographical-narrative interpretative method (BNIM). For sample questions of each interview session, see Appendix VII. Throughout the interviews, I reflexively noted my feelings as well as any reactions I had to the participants' narratives. The type and foci of each interview type are outlined below.

Narrative Interview. During the first session, a comprehensive compilation of community and online resources pertaining to mental health was provided to the participants to facilitate their awareness of the available helplines. In addition, I asked participants if they favoured a certain pseudonym or not, and the answer was recorded on the master list. Based on the BNIM process, the participants were given a single question that served as the basis for the conversation that followed (Wengraf, 2001). In this way, the storytellers were provided with the freedom to "begin, create, and terminate their narrative on their own terms" (Corbally & N'Neil, 2014, p. 7). The question asked was: "I would like you to tell me the story of your community mobility experiences after being diagnosed with vision loss". I made an effort not to interrupt the participants' story in accordance with the narrative process and so as not to add or introduce any of my own prejudices. My objective was to win the participants' trust right away because I wanted them to feel safe and at ease telling their stories to me.

Phone calls were used for all of the narrative interviews as per the participants' choice. I would hypothesize that this choice may have resulted from the aftermath of the Covid-19 pandemic. The duration of each interview session was between 30 minutes and 1.5 hours. Each interview was audio recorded. I took reflexive notes during the interview,

recording any ideas or emotions I had in relation to the older adults' story and any points I felt required more in-depth discussion in the follow-up interview. To encourage maximum immersion into the older adults' narrative, I typed the transcripts for each of the narrative interviews into a Word document.

Semi-structured Interview. During this second session, I was able to clarify any stories that were told in the first interview session and get more information by conducting a second, semi-structured interview session using Wengraf's (2001) BNIM methodology. There was a minimum of a two-week period between the first and second interview sessions. By posing pre-determined questions specific to the participants' first narrative interview, each older adult was able to reveal more information about their experiences of community mobility (see Appendix VII for the interview guides). Based on the narrative the participants presented in the first session, I paid particular attention to eliciting more details about how the environment supported, or limited, their community mobility. In the second interview, for instance, if a participant mentioned that they had trouble crossing intersections, I tried to elicit more details about that experience through the questions I asked.

The semi-structured interviews for each of the participants were conducted over the phone as this was the method preferred by the participants. The semi-structured interviews, like the narrative interviews, lasted between 40 minutes and 1.5 hours. I transcribed each of the semi-structured interviews by using the transcription feature in Microsoft Word.

Final Interview. Before the third and final interview session, I drafted a re-constructed narrative based on the previous two sessions, which included rich descriptions as well as quotes that best exemplified how community mobility was shaped by environmental factors for the participants. There was at least one month between the second and third sessions, whereby the draft narrative account was produced and reviewed by my advisory committee. After it was completed, the researcher emailed, or mailed, the narrative to the participant in advance of the third session to provide the participant with time to read it privately. At the third interview session, the participant was invited to comment on whether it appropriately portrayed their story. I made any required adjustments or alterations to the participant's narrative, primarily correcting the names of individuals and places.

3.3 Data Analysis

The analytical procedure, characterized by its iterative nature, encompassed both thematic and structural analysis and was initiated subsequent to the transcription of the initial interview. The utilization of the socio-ecological model was integrated during the process of data analysis. This facilitated the generation of more comprehensive data derived from the narratives shared by the study participants. The utilization of thematic analysis facilitated the exploration of the "what" questions, specifically the substance of the participants' experiences. For example, the shared and unique narratives of the participants' experiences with community mobility while living with ARVL. In the present narrative study, I conducted a structural analysis to investigate the manner in which the participants made choices, arranged, organized, and communicated the

significant life events and principal messages in their narrative renditions. This analytical approach is in line with the works of Fraser (2004) and Riesman (2008c).

Thematic analysis. The first step in conducting a thematic analysis involved a thorough review of the audio recordings of each interview. This process entailed transcribing the data and maintaining reflexive journal notes with the objective of uncovering any preconceived notions, underlying values, and initial interpretations of the participant's meaning-making process regarding their life experiences, as per Riesman's (2008b) guidelines.

The second stage entailed the combination of inductive and abductive coding of the transcripts by means of engaging with the entire text and scrutinizing it line-by-line or paragraph-wise (Fraser 2004 and Riesman 2008b). After becoming acquainted with the data, I produced some rudimentary codes and commenced a systematic study of the material. Codes were identifiers that highlight data elements that may be relevant to the study at hand (Braun & Clarke, 2006). Environmental challenges are one example of a code that featured frequently in the transcripts. Coding was performed manually in a Microsoft Word document. To accomplish this, I colour-coded the text to keep track of the information connected with each code and highlighted areas of the data that appeared promising for addressing my research question by highlighting them in yellow. This process was repeated until the entire transcript was coded and all relevant information was highlighted. The codes ranged from descriptive, which remained close to the story content and mirrored the participants' words, to interpretative, which incorporated my interpretations and included my guiding theoretical approach, in order to go beyond what the participants had said.

The third phase of data analysis was designed to discern narrative threads from individual cases through a process of code comparison, contrast, unification, and elimination within each specific narrative (Fraser, 2004; Riessman, 2008b). This phase involved a meticulous examination of the coded documents from the initial two interview sessions for each participant. I engaged in a process of synthesizing similar codes to produce overarching themes and storylines. Each of these themes was subsequently assigned a title that effectively encapsulated its central meaning. The iterative process of thematic analysis involved three steps, which were repeated until the point of elastic saturation of knowledge was attained. At this stage, no further analysis or cross-comparison between cases yielded new codes, themes, or interpretations (Riessman 2008b).

Structural analysis. The aim of conducting structural analysis was to scrutinize the manner in which the participants organized their narrative renditions, with particular emphasis on the vocal modulations and emotional responses elicited during their storytelling, as posited by Fraser (2004) and Riessman (2008c). Through the utilization of structural analysis, I attempted to make an inquiry into the manner in which the participants communicated the central themes of their narratives. This was achieved by scrutinizing the rationale underpinning their selection and arrangement of the principal climactic and anticlimactic events (Fraser 2004 and Riessman 2008c). During the process of reconstructing the narrative cases, I attempted to ensure the validation of crucial plot points with the participant. Additionally, I tried to employ creative writing techniques to emphasize the social context of the narrative.

3.3.1 Reconstruction of the Narratives

I utilized a combination of the themes I had created and the storylines I had found as a guide to frame the narratives as I was reconstructing them, focusing on the contributions made by each participant throughout the interviews. At this point in the analysis, my theoretical framework, the socio-ecological system theory, also became more relevant. I focused on how various elements of the participants' environments (such as their families, physical surroundings, and social interactions) influenced their community mobility experiences and how it influenced their interpretations of their surroundings as older adults living with vision loss (e.g., seeking changes in the environment to support their community mobility). In the personal narratives, I assumed the role of narrator and observer and wrote those narratives from the third-person point of view to preserve the participants' anonymity.

The written narratives were read by my Master's thesis supervisor and committee members, all of whom offered comments on each draft. My supervisor and committee members provided me with the insight I needed to extract and interpret relevant stories from the transcripts, particularly those that dealt with how the environment either supported or limited community mobility. They also assisted me in rearranging the information in each transcript such that it told a coherent story about the community mobility experiences of the participants. I was able to produce a well-detailed interpretation of the co-created older adults' stories as a result. As soon as my rendition of the story was complete, I shared my findings with the participants. Any adjustments proposed by the participants were implemented into the stories. The older adults

unanimously agreed that the stories they helped construct appropriately portrayed the ways in which the environment either facilitated or hindered their community mobility.

3.3.2 Generation of overarching themes

After reconstructing the primary themes of the personal narratives, I began to generate overarching themes across data sets using thematic analysis (Braun & Clarke, 2019). Specifically, I examined the interrelationships between the storylines I had generated and how this list of themes across stories could be used to describe "the overall story of the data" (Braun & Clarke, 2006, p. 65). The prospective themes were then analyzed in relation to the coded data, the entire data set, and the study topic. At this point of the study, specific themes observed throughout the narrative reports of individual participants were explored (Braun & Clarke, 2006). My master's thesis supervisor and I were both involved in this final round of data analysis. After evaluating the narrative data from all participant interviews, I forwarded the data analysis summary of each participant's interview to my thesis supervisor, who had previously reviewed all interview transcripts. These summaries featured a list of topics derived from each participant's narrative, as well as illustrative quotes.

After reviewing the document, we had a meeting to present the major themes we had each come up with. I was able to exercise some reflexivity throughout this meeting and gain a deeper knowledge of the data through debate and being challenged about any preconceived assumptions I may have had. This helped me comprehend the information better and revealed the relationships between the stories each older adult told. At the

conclusion of this meeting, the six overarching themes and their subcategories were decided upon, which will be discussed, in detail, in chapter five.

3.4 Data Management

The participants' chosen pseudonyms were used to hide their identities and to distinguish any recordings, notes, transcripts, and interviews. Any personally identifiable information, including names of individuals and places, was changed to protect all storytellers.

To keep track of participant identities, a master list was developed that was only accessible to the research team. The names of the participants, the names of anyone referenced in the participants' stories, specific places mentioned, demographic data, and phone numbers were all included on this master list, among other things. A secure Western server (OneDrive) account was used to store all electronic versions of personally identifiable data. After seven years, all information gathered for this study will be deleted and destroyed.

3.5 Ethical Considerations

3.5.1 Addressing Power Imbalance

Since the researcher needed the participant's stories to generate any work, the balance of power lay with them during the early stages of the research process up until the data analysis phase (Sabar & Sabar, 2017). At this point, the power shifted to the researcher to make sense of the information gathered (Sabar & Sabar, 2017). It was the participants' choice to tell their story so I was completely forthright with the participants

and welcomed any and all questions they had concerning the study. I made an effort to connect with each participant on a personal level so that they would feel safe sharing their experiences and would have faith in my ability to portray their perspectives in the final narrative. The researcher and the participants co-constructed the narrative to best capture the older adult's experience with community mobility while living with ARVL.

3.5.2 Risks to the participant

I knew that talking about ARVL and its impact of experiences of community mobility might make some participants feel vulnerable and bring up some challenging emotional reactions and/or feelings. At the start of the first interview, a list of community mental health resources was provided to each participant who took part in the study. In this study, Symthe and Murray's (2000) approach to obtaining process consent was also used. I asked the participants at different points in the interviews if they wanted to continue taking part in the study, and I reassured them that they could leave the study at any time without consequence. In addition, throughout the sessions, whatever supporting measures I could take, such as providing encouraging words, were practiced.

3.5.3 Accessibility Concerns

The researcher made every effort to accommodate any request for accommodation to make the study accessible to older adults with ARVL. For example, documents, such as consent forms and the LOI, were made available in large print. The researcher was also able to electronically send documents to each participant, allowing the older adults to use screen reading software on their computers to review materials before the session. Because she did not have an email address, one of the participants received all of her

documents by mail. Every older adult was also given the option of choosing their preferred location as well as the mode of communication that best suited their needs to complete the interviews. All of the participants preferred that the interviews be conducted over the phone and their choice was respected and adhered to.

3.5.4 Maintaining Confidentiality

Protecting the privacy of participants is regarded as the major responsibility of researchers (Sabar & Sabar, 2017). To ensure the privacy of participants, all identifying information, such as names of persons and locations, was replaced with pseudonyms. Participants were told that they were not required to give any information that made them uncomfortable, and that they could withdraw any information, or their participation from the study altogether, if they so desired. All confidentiality concerns were outlined in the letter of information and discussed with them prior to their participation in the study.

3.5.5 Who Owns the Narrative

The question of who "owns" the story is one of the ethical concerns of narrative research. When the participants sign the consent form, there is a line stating that by participating in the study, they grant me permission to share their narrative and publish the completed work. Most individuals unfamiliar with the academic research process believe that their contributions end when the interview concludes, but this is not true (Sabar & Sabar, 2017). The publishing process was described to participants at the beginning of the first interview and at the conclusion of the last interview to avoid any confusion. Participants were also given the option to share their ideas and provide feedback on the re-constructed narratives, with the researcher making any requested

revisions/changes. At this stage, neither the researcher nor the participant completely owns the participant's story; rather, the researcher and the participant share ownership. I also delivered the final copy of the participants' narrative accounts through email or hard copy.

3.5.6 Procedural Ethics

Maintaining procedural ethics is crucial for data accuracy since they encourage researchers to steer clear of dishonest behaviour and any data omissions (Tracy, 2010). Each storyteller must be respected according to procedural ethics, and they must participate cooperatively in the study process. In addition, Western University's Research Ethics board's recommendations and policies were fully adhered to. Participants in research have a right to be informed about the study's purpose, any potential negative effects, and their freedom to decline to participate (Tracy, 2010). At several times throughout the interview process, participants were reminded of their right to withdraw and were given complete explanations of the research objectives and any potential risks to them as participants. All the participants' personal information was kept digitally secure using password-protected encryption. The transcripts were altered to remove any identification, and any names mentioned were given pseudonyms. These tactics lessen the possibility of deductive disclosure, in which participants' identities might be discovered by someone who might recognize particular details about their lives (Tracy, 2010).

3.5.7 Relational Ethics

Relational ethics investigates the presence of ethical self-awareness, in which researchers are cognizant of themselves, their actions, and the effects their activities may have on others (Tracy, 2010). To ensure relational ethics throughout the research process, a reflexive notebook was kept. This was done to ensure that I took responsibility for my pre-assumptions and remained focused on my research question. Instead of putting my own thoughts, values, or beliefs on their stories, I approached each conversation with the older adults, eager to learn from their life experience. One of my foundations was providing each participant with the respect they deserve, and this was something I instinctively returned to, and investigated, after each interview. There were moments during interviews when the older adult expressed opinions or beliefs that directly contradicted my own, and in order to maintain relational ethics, I would record my thoughts and feelings in my reflective notebook while remaining neutral.

3.6 Quality Criteria

To ensure that this study was conducted in a way that maintained quality, Tracy's (2010) Eight Big Tent Guidelines for qualitative research were used as a guide. The eight criteria for quality are as follows: meaningful coherence, rich rigor, credibility, resonance, sincerity, ethics, significant contribution, and worthy topic (Tracy, 2010). Researchers can utilise the eight criteria listed by Tracy (2010) to determine whether their qualitative study satisfies the standards for scholarly and trustworthy research.

3.6.1 Meaningful Coherence

Studies that are meaningfully coherent meet their goals, employ techniques and representations that are compatible with the theories and paradigms they are based on, and skillfully incorporate relevant prior research (Tracy, 2010). By adhering to Guba & Lincoln's (1994) and Tracy's (2010) works on the constructivist paradigm and qualitative research quality, respectively, the narrative constructivist methodology was consistent throughout the study. All facets of the investigation were interlinked and related to the research question.

3.6.2 Rich Rigor

Qualitative research studies that satisfy the criterion of "rich rigour" are characterized by the extensive utilization of theoretical frameworks, data, and prolonged fieldwork, sampling, research context, and data collection and analysis (Tracy, 2010). The adoption of the BNIM format necessitates a minimum of two hours for each session to conduct an interview, with the majority of sessions being completed within a timeframe of 90 to 120 minutes, as per Wengraf's (2001) recommendation. Therefore, in an attempt to preserve the veracity and reliability of the data, I spent a mean duration of 120 minutes with each of the participants. Throughout the data analysis process, I committed to immersing myself in the data, adopting an iterative process of data analysis whereby I manually transcribed the collected data and re-listened to the audio-recorded interviews multiples times. I ensured that, at the conclusion of each interview, I asked the participants if they had any other experiences to share. This practice was to help the

participants to not inadvertently exclude any of their experiences, thereby contributing to the overall richness of the information gathered.

3.6.3 Credibility

Credibility, according to Tracy (2010), necessitates the following features: crystallisation; multivocality; member reflections; detailed descriptions; explanation of all non-textual information; proper demonstration; and length of presentation. An abundance of supporting evidence, such as direct quotations from the interview transcripts, was used to elaborate on the study's findings.

Crystallization refers to the temporary suspension of the process of data examination or reading, commonly known as immersion, in order to engage in reflective analysis. This analytical process involves identifying and articulating patterns or themes that have been observed during the immersion phase (Cohen and Crabtree, 2006). Crystallization improves the quality of research by adding credibility and trustworthiness to the data (Stewart et al., 2017). Breaks were taken between interviews so that I could fully immerse myself in the data and reflect on my analysis to discover any developing themes or patterns. In addition to focusing on crystallization during the reflective process of describing the emotions felt by the participant and myself throughout the course of this research, I also drew attention to the experiences we shared during the course of this investigation. In addition, clarity emerged when we traced threads between the several interviews with each subject.

3.6.4 Resonance

When research has resonance, it has the power to evoke emotion in its target audience through effective representation and naturalistic generalizations (Tracy, 2010). According to my findings, older adults with ARVL have unique perspectives on how the environment either facilitated or hindered their ability to move freely within their communities. My hope is that the narrative approach taken in this thesis would evoke emotion and a sense of personal connection in the minds and hearts of readers as they consider the rich details and descriptions supplied by my storytellers. I worked hard to gather detailed information and craft probing inquiries that would elicit such accounts from my informants.

3.6.5 Sincerity

Considerations of one's own ideals and biases, as well as openness about one's study methods and the difficulties encountered, are used to evaluate one's sincerity (Tracy, 2010). Truthfulness and originality are associated with sincerity. In this context, "sincerity" refers to the researchers' openness and frankness in discussing their own motivations, assumptions, and outcomes in the research (Tracy, 2010). Over the duration of the research, I practiced self-reflection by keeping a reflexive notebook. Negative feelings that surfaced during the research process were to be dealt with by practicing self-reflection. Because of my background as an Optometrist, I am aware of the strong subjective values and numerous pre-assumptions I carry. My research supervisor and I had regular conversations about the research process and how to handle any biases that arose during the course of my research. The researchers' positionality and its influence on

the study process were made transparent by unpacking biases throughout the research process.

3.6.6 Significant Contribution

A study is considered high-quality if it adds something new to the field on multiple levels, including theoretical, practical, moral, methodological, and heuristic (Tracy, 2010). The socio-ecological model is a theoretical framework that has been established to assist in explaining the complex interactions that take place between people and the environment in which they live (Ma, et al., 2017). The current understanding of environmental impacts on community mobility can be improved by determining the ways in which the environment supports or limits the community mobility of older persons with ARVL. The collected narratives may inform how government agencies and non-profits respond to the challenges of community mobility for older adults with ARVL.

Research that has practical significance aspires to be of use or to provide a solution to an existing issue (Tracy, 2010). This research has real-world implications because it highlights a gap in our understanding of the ways in which the environment either facilitates or impedes the community mobility of older adults with ARVL. This research intends to shed light on the real-world skills that allow visually impaired older adults to get around their communities independently. The findings of this research provide an opportunity for change by enlightening policymakers and the public on how communities might be designed to better facilitate the community mobility of older adults who have vision impairments.

The ethical significance of qualitative research is exemplified by researchers' adept handling of contextual predicaments and their consequent provision of recommendations that can aid participants in formulating prescriptive guidelines for conduct (Tracy, 2010). As researchers, we have conducted a comprehensive narrative study that focuses on the influence of the environment on the community mobility of older adults experiencing age-related vision loss. The present study was initiated with the objective of filling the gap in the existing ARVL research, specifically the paucity of studies centered on the aspects of the environment and community mobility. To do research that is methodologically meaningful, you must actively engage with the technique in a thoughtful manner (Tracy, 2010). This study is important from a methodological standpoint since it used the narrative approach to present the experiences of older adults with ARVL and the ways in which their environment either facilitates or restricts their ability to move around their communities. Since a narrative perspective has not been taken on this topic before, this study will add a level of methodological innovation to this field of study.

Findings with heuristic significance will inspire others to do their own study and pique the interest of the reading public, both of which can lead to new scholarly discoveries (Tracy, 2010). This study had, as one of its overarching aims, to encourage future research into focusing holistically on the environmental influences on the community mobility of older adults living with ARVL.

3.6.7 Worthy Topic

Relevance, timeliness, significance, and intrigue are all factors that Tracy (2010) considers crucial when choosing a topic. The completed literature review revealed a gap in the existing research regarding how the environment supports, as well as limits, the community mobility of older adults who are visually impaired. The findings of this study are important because they will inform government policies, and the general public, regarding inclusiveness in the environment holistically in order to meet the community mobility needs of older adults with ARVL.

3.7 Conclusion

In this chapter, I described the context of the study alongside the philosophical and theoretical foundations, research strategy, procedures, and ethical considerations.

Chapter 4: Reconstructing Participants' Narratives

In this chapter, I provide a reconstruction of the participant's narratives focused on how the environment influenced their experiences of community mobility.

4.1 Hope's Narrative

Hope is a 73-year-old woman and three years ago she was diagnosed with macular degeneration. Hope has been widowed for about 10 years. After hearing about this study from her friend, she contacted me so she could participate. Hope lives alone in an apartment in London, Ontario. Despite being retired, she actively engages in volunteer work at a nearby bookstore. Hope and I held all our interviews over the telephone as she preferred that mode over Zoom or an in-person meeting. Hope sounded cheerful and confident throughout our conversations.

Driver's license loss after a low vision diagnosis. Prior to receiving her medical diagnosis, Hope was the kind of person who embraced every moment of life. She seldom stayed in one place for long, preferring to get behind the wheel and discover the world around her. However, that changed when she was diagnosed with macular degeneration on March 16, 2020, the same day the world went into lockdown due to the Covid-19 pandemic. Despite being able to see cars and traffic lights, Hope encountered difficulties with reading, prompting her to seek consultation from her Optometrist. After her diagnosis, she had her driver's license suspended, which came as a shock for Hope, who lived alone in London and relied on driving to support her community mobility:

“...and it was a shock of course, and yea, I actually wonder if the license wasn’t taken a bit too early because, I could certainly see cars and traffic and all of that. It was the ability to read at that stage that was difficult”.

Hope expressed her concern regarding the loss of her driver's license, which caused her to experience apprehension due to her living alone in London and the potential implications on her mobility:

“I live alone, I don’t have any relatives in London, so it was kind of like, okay, don’t have a license now, so what do I do?”

Relying on friends to support community mobility. Despite the emotional difficulty of losing her driver’s license and the practical challenges to community mobility that entailed, Hope had a strong support system in the form of friends who offered to help by driving her to the grocery shopping, doctor’s appointments, and more. Accepting help from her friends was the first step Hope took towards acknowledging her situation and the limitations to community mobility vision loss had imposed on her:

“I have a very good group of friends, and everybody said that they would pitch in and help me, like get to the grocery stores, doctor’s appointments, that kind of thing”.

Hope elaborated at length on her dependence upon the assistance of friends in navigating her community. She added that she usually relied on other people to help her go through parking lots since she didn't feel secure navigating these regions on her own because she couldn't clearly make out the aspects of the surroundings in these locations:

“If I’m going to have to walk through parking lots and all that, I don’t do that unless I’m with somebody else. I do not do that on my own”.

During our second interview, Hope described how her friends used sighted guide techniques to get her safely across intersections and busy roads:

“Well, they tell me when the traffic is clear, and nobody is racing through an orange or red light. And I do the guided walking where I’m holding the back of the person’s elbow and they are two steps ahead of me and I just follow them across”.

The use of obvious markers of vision loss to support community mobility.

Hope discussed her experience of using obvious vision loss markers, such as the white cane as well as stickers and buttons, to clearly identify herself as a person with vision loss. For example, she explained that a low vision organization provided both buttons and stickers for people with vision loss as a means of identification, with the hopes that it would result in help being provided by members of public when required:

“[...] I think its [name of vision loss organization] [...] And from them I got 3 or 4 large pins that I wear that say low vision. [...] And I got some stickers that say low vision. But a lot of people wear buttons, and they tell somethings so you kinda have to point to it”

Hope described how she felt using her white identification cane. She explained that the white cane reinforced the idea that she was disabled, and she wasn’t happy about

that. She went on to say that despite understanding its purpose as a tool to identify her as a person with vision loss, she was not comfortable when she had to use it:

“[...] I do have a white identification cane from [name of low vision organization]. [...] It’s not my favourite thing to do, I mean, I know the purpose of it is to exactly identify the fact I have low vision, I don’t know, it’s a personal thing, I just don’t like advertising my issues”.

Restricting community mobility due to negative social interactions. Hope’s life took a major turn after she was diagnosed with macular degeneration, and she struggled to adapt to these new changes. Hope talked about some of the challenges she faced with social interactions and how they influenced her decision to restrict her community mobility after she was diagnosed with vision loss. For instance, some of the encounters Hope had with people at grocery stores and malls suggested that people would often make faulty assumptions and generalizations about older adults with vision loss:

“Sometimes I’ve asked people for help to read something at the grocery store, and I do wear glasses, I get comments like, oh I think you need to go and have your glasses, or your eyes checked and get new lenses and you know, that’s just people”.

Hope further described negative experiences she had communicating with people, especially strangers. She explained that people did not understand that she was struggling with her vision, and at times would be offended when she didn’t react to them in a friendly manner. This shaped her experience around going out and was one of the reasons why she restricted her community mobility:

“...it’s very difficult to talk to someone especially strangers when you can’t read the facial expression. And it’s hard even for people that I might meet at the shopping centre, like they wave at me and next day say oh I waved at you, and you didn’t wave back, you know. I don’t see them. So that’s one of the reasons it’s too intimidating to go out because unless someone says their name or comes right up to me, I don’t know who it is and yea, I just find it easier to be at home unless I’m with friends....”

Hope also found it intimidating to ask for help, particularly from strangers, because people sometimes would change their attitude or treat her as if her intelligence was lower than it was when they would find out she had low vision:

“Some people are extremely rude. [...] When you say to someone you can’t read something, then, first their attitude changes, and not just raising their voice and that kind of thing; but I’ve really found in the last 2 and a half years that when people are aware that you can’t see, they also think your intelligence level is a little lower”.

Hope explained that as a result of these negative social interactions, even though she once enjoyed going out, now she would rather stay home:

“Unless I’m going out with friends, I really do not enjoy going out. I used to be out a lot, I used to be out on my own, and no, it’s really very intimidating. For some of the reasons I just said, for the way people react, it has made me stay at home more for sure... “

By limiting her community mobility due to these negative social interactions, Hope described being left with feelings of frustration and social isolation:

“Well, of course I feel very isolated, sometimes I feel frustrated. Like I said I’m fortunate that I have a large circle of friends. But if everybody is busy all at the same time and I’m sort of stuck in my apartment, then I feel isolated and frustrated. But, if it’s really important then I will take a taxi and go somewhere”.

The role of public transit in shaping community mobility. Hope explained that she preferred going out into the neighbourhood with the help of her friends, however, when they were not available, she would have to rely on taking a taxi which is an experience that she finds overwhelming and intimidating:

“[...] like I said I have friends that take me grocery shopping, but on occasion, I have to take a taxi and go in on my own which is usually intimidating”.

Hope acknowledged less expensive transportation options, such as paratransit, but this was accompanied by its own challenges, such as the inflexible scheduling of paratransit and the inability to engage in spontaneous travel due to the need to book far in advance:

“[...] I am aware of paratransit and some of the other things, but I mean you have to book 3 days, 72 hrs in advance, that kind of thing. But, for me it isn’t so much of the transportation to get to the grocery store, when I’m in the grocery store, that’s when I need, and I mean the paratransit drivers aren’t gonna park the bus and come in and help shop”.

Although Hope would reluctantly use public transit when necessary, she expressed her displeasure with the fact that public transit offered little support for her accessibility needs as an older adult with vision loss:

“For instance, to go to the grocery store, if I would hop in transit or paratransit, well that’s fine but like I said before, is the driver gonna come and shop with me? No. it doesn’t make sense to use public transit for that because I do need assistance in the store”.

The built environment and its role in shaping community mobility. Hope described how her experiences trying to navigate the built environment shows how the needs of people living with vision loss are not taken into consideration by the general public:

“If someone cannot take me grocery shopping or shopping in a pharmacy, then I have to turn to strangers and ask them. Because the lighting is poor, I can’t see a piece of chicken or beef and I would have to ask strangers. For instance, in the coffee section, I don’t know if its medium roast, light roast, or dark roast. I’ll have to ask strangers to help me when it comes to reading labels”.

While describing her experiences with community mobility, Hope highlighted that she didn’t feel supported by the physical infrastructure in the environment as an older adult living with vision loss:

“I can’t say there is any environmental support that helps me move around freely”. I still have the advantage of being able to see colours, so with the traffic lights I can see red and green if I’m close enough”.

Hope narrated her experience with some of the physical infrastructure in her environment, such as being unable to distinguish curb cuts, lines, or bumps in the pavement and so would only walk-through parking lots with someone else:

“If I’m going to have to walk through parking lots and all that, I don’t do that unless I’m with somebody else. I do not do that on my own. Because I can’t. I don’t know, with my vision whatever is going on, when I go out, let’s say it’s a sunny day and I can’t distinguish on the pavement, I can’t see if there’s a curve, a bump, that kind of thing”

Hope further described the difficulties that the physical environment, posed to her community mobility by emphasizing that crossing the road at busy intersections was a challenge that was further complicated by impatient drivers:

“[...] There’s no way I’ll ever cross that street on my own! Never! Because there’s traffic going in every direction, there’s 2, 4, 6, 8, lanes of traffic at that intersection, well, there’s more than that, there’s 10, I guess. There’s left turns, there’s right turns, Oh my gosh! I would never ever, even with the traffic lights, I would never cross that intersection on my own. A lot of drivers as you know, in London, they don’t follow the traffic rules. I mean people are constantly turning left on orange and red lights and no. I would never ever cross that intersection on my own”.

Ideas on how to support the community mobility of older adults with ARVL.

Toward the end of my second interview with Hope, she suggested that changes need to be implemented to improve the community mobility experiences of older adults with vision loss. She suggested that speed limits should be better enforced, and more work should go into advertising to motorists about the rules of using the road:

“[...] I can't think of any solution except if you have cops on the corners keeping people from speeding, not obeying the laws and going through red lights. I'm not sure people will listen, but there should be constant bombardment of advertising about this, on T.V, radio, podcasts, everything”.

Hope was concerned about the built environment and recommended some adjustments to be implemented to improve community mobility such as regular maintenance and regular painting of road lines:

“It would be more helpful, even in the apartment building I live in, shopping malls, parking lots, if maintenance could keep up with painting the designated lines because the paint wears off after a while and for someone like myself, I just can't see where the lines are”.

Hope made further suggestions regarding the colours of the curbs in parking lots. She explained that the colours on most of the crosswalks have faded and need re-painting. She suggested that these changes, if implemented, would support and facilitate her community mobility around the malls and shopping centres:

“In shopping centres and in parking lots and things, if the dropped curbs were painted very bright yellow or if the crosswalks were painted bright yellow, I know some of them are, but they wear down and the city isn’t great at getting out there and refurbishing the painting jobs on those areas”.

Hope also recommended that changes should be implemented to support the social interaction of older adults with vision loss to encourage their continued engagement within their communities, such as hiring support staff in malls or grocery stores to help persons with vision loss:

“It would be nice if grocery stores had a staff person that was designated to help shoppers who have visual issues”.

4.2 Jovita’s Narrative

Jovita is a 72-year-old woman who was diagnosed with age-related macular degeneration 7 years ago. She is a retired civil servant and lives with her daughter and grandson in London, Ontario. Jovita has been widowed for about 15 years. Jovita contacted me after learning about the study from a flyer placed at an optometry clinic in London. She preferred that we conduct the interviews over the telephone. Jovita presented as a fierce, independent woman who knew exactly what she wanted. Jovita said she was happy to be a part of the research because she hoped that the findings would inform government policies that support the community mobility of older adults living with vision loss.

Struggling with the loss of independence. In telling her narrative, Jovita emphasized that she was an independent woman who has always been confident in her abilities. She loved reading and going for drives. Seven years ago, her life changed when she was diagnosed with macular degeneration. When receiving the diagnosis, Jovita emphasized that this was hard on her as it meant that she was losing her independence:

“[...] When I was diagnosed, I was completely overwhelmed because it meant I was going to lose my independence and it hit me really hard. I struggled with the news and the realization for about 8 months, then I decided to take it in good faith”.

Jovita, elaborated on how saddened she was by the news of her diagnosis. She was angry at the world and refused help from her daughter for the first six months:

“[...] I was angry at everything and the world at large, and I wondered why this had to happen to me. I was like, I’m a very independent person and so I’m the last person who should have her movements restricted by any sort of ailment”..

She explained that when she came to terms with her condition, she decided to move in with her daughter, who is the only family she has left after losing her husband and son 15 years ago:

“[...] when I finally came to terms with the idea that this was not going to go away and I’ll live with it for the rest of my life, I decided to find a way to get used to it. I told my daughter that I was ready to move in with her, and she came and got me”.

Despite the challenges that limited her community mobility, Jovita was determined to maintain her independence and still went out on her own, although she faced some resistance from her daughter:

[...] when my daughter is not available, and I need to get to someplace, I take the bus. [...] it's quite frustrating and my daughter gets so mad whenever I go out on my own and use the bus. But she works so hard, and I don't want to be a bother you know"

Adapting to the new normal: Enjoying new hobbies. Jovita enjoyed the outdoors and was a big fan of physical activity, which explains her love for lawn tennis. After her diagnosis, she had to give up that hobby and embraced taking walks instead:

"I used to love playing lawn tennis. I started playing it as a young girl and continued it as a hobby [...] When I decided to come to terms with the diagnosis, I decided that instead of giving up my main physical activity, I would replace it with taking more walks".

Jovita explained that she was averse to social gatherings but would always welcome the opportunity to take a walk:

"[...] I would turn down every invitation to a party or social event, but I would jump at every opportunity to take a walk. When I used to drive, on some days, I just get into my car and drive, not necessarily to anywhere in particular but most times, just to clear my head. I do the same thing now, but with walking".

Jovita combined her love for walking with the opportunity to bond with her grandson whom she frequently took walks with:

“[...] on some other days, I take walks with my grandson. [...] I enjoy walking with him because he’s patient and he listens to all my silly stories”.

Jovita also described a win-win situation whereby she attended the local church, which provided her with an avenue to renew her faith, and a means to do what she loved doing which was walking:

“[...] Most times I go to church by myself. It’s not so far from the house, so I just walk. Going to church gives me a sense of purpose, and I like that for me. As much as I don’t join any of the extra activities, I just like the idea of walking there every Sunday”.

Use of assistive technology to support community mobility. Jovita described multiple situations when she would use assistive technology, in the form of the white cane and the GPS on her mobile phone, to support her community mobility:

“[...] I love taking walks so sometimes I use my cane and get by through the intersections. I mainly use my cane, so I don’t bump into people or stuff. Most times I also use the GPS on my phone, it helps me know how far I’ve gone, so I don’t get lost”.

Jovita described her experience with using her white cane, which she first found quite frustrating and challenging, before she finally got the hang of it:

“[...] There’s a bus stop I use, that’s just at the corner of our house, so on some days I use my cane, and other days I don’t. [...] At the beginning, when I had just started using it, it was frustrating. But I kinda got used to it. As long as it gets me from A to B kinda safely, I’m fine with it”.

When Jovita shared her story, she highlighted that as an independent woman, the white cane reminded her that she wasn’t independent anymore, and this made Jovita uncomfortable using it:

“I’m not so comfortable using the white cane because it kinda reinforces the idea that I’ve lost my independence”.

Jovita acknowledged that the white cane supported her in the sense that it served as an indication to people in the neighbourhood, including motorists, that she was visually impaired and so to be more patient with her:

“[...] most times, I feel like the cane helps people to understand my condition and excuse my questions or requests for help”.

Although Jovita stated that the GPS device has been a great help during her walks, and provides her with a greater sense of safety, there have been instances where she has needed to rely on the help of strangers when the device was insufficient:

“The only challenge I think I’ve ever experienced happened when I first got here and wasn’t quite familiar with the routes. I went on one of my long walks and I think the GPS did not have the exact route mapped out. I got lost at some point and I had to ask people around for help getting back home.

Beyond the devices that Jovita uses to support her community mobility, she described being aware of ‘apps’ such as “Be My Eyes” or “Aira” that are designed specifically to support the community mobility of people with vision loss, however, she stated that she had not used any of them:

“I’ve heard about a couple of apps that help blind people navigate their environment like the Aira app and the Be My Eyes app, but I haven’t used either of them. I mean, I don’t think I’ve ever been in a situation where I didn’t have access to immediate help which is what I think those apps are for”.

Restricting community mobility experiences due to social relations. Jovita narrated how she felt insecure when she went out on her own. She was a firm believer in enjoying the present, hence she used to love to go on solo dates. However, her inability to read the menu at restaurants led to her feeling insecure about herself and the way she would be perceived by others:

“[...] I also used to enjoy going on solo dates to restaurants, but that has greatly reduced. It gets so frustrating trying to see what’s on the menu and even though the waiters are mostly nice and help out with that, it makes me feel insecure not being able to read”.

Jovita’s feelings of insecurity, related to going out to restaurants, led her to cut down on the frequency of her outings, and she wasn’t happy about this:

“So, I had to cut down on my solo dates from at least 3 times a month to about once in 3 months now”.

Jovita also described her interactions with people at the shopping centers, and how these interactions shaped her self-perceptions. For example, although she acknowledged that people are willing to help her while shopping, it made her uncomfortable because she felt they were doing it from a place of pity:

“[...] People are quite helpful I must say, but most times I feel like they do it from a place of “oh poor little blind lady” you know what I mean? I don’t like that feeling. So, I asked for help from one of the store assistants and they left every other person to attend to me. [...] Its frustrating and it makes me feel sad. it’s like stripping you of the last shred of dignity you have left”.

“[...] It can get really challenging because in these large stores, I need to figure out where the items are, and I also need to check up the ingredients on some of the items, then on some occasions I find myself asking strangers for help. [...] Some people are too nice and make you look stupid, others are more impatient, like you know, I’m not the cause of your problems ma’am. It used to bother me at the beginning because I love my independence and hate anything that makes me appear needy. But these experiences have a way of humbling you, and most times it’s a choice between staying at home or risking any of these experiences. [...] so, on some days, I’m like no, I don’t want to deal with these things today, I just go on my routine walks around, or I stay home”.

Furthermore, when Jovita narrated her experiences with asking strangers for help, she disclosed that asking for help further reinforced a feeling of helplessness accompanied with disability:

“[...] because it reminds me of the extent of my disability when I have to rely on strangers for help. I mean it’s enough reason for me to sit home and decide not to go out, which I’m sure is some other people’s reaction”.

Challenges with public transportation. Prior to the loss of her driver's license, following a diagnosis of vision loss, Jovita was driving her own car. After her diagnosis, she was compelled to rely on alternative modes of transportation. During our conversation, Jovita highlighted numerous instances of the challenges she encountered when using public buses, such as the lack of audio announcements both at the bus stop and on the bus:

“Using the bus is difficult because sometimes the audio announcements in the buses don’t work, so it’s hard to know when to get off. Also, getting to the right bus stop is frustrating”.

Jovita expressed concerns regarding the difficulties she encountered in accessing the bus stop due to her visual impairment, which impeded her ability to discern the signage with clarity:

“[...] the first struggle is getting to the bus stop. [...] Then, I have to wait for the right bus which is another struggle. The bus stops don’t always have the audio announcements turned on, so I don’t really know when the right bus to enter arrives. Most times, I ask people around for the bus number, or I get closer and ask the driver”.

Jovita acknowledged that although using paratransit was safe and reliable, the service is expensive, has limited service, and does not drop her off at the exact destination:

“[...] I’ve used the local paratransit service, it’s a bit reliable and I feel safe using it, but it’s expensive. The challenge I have using it is that it does not go to all the places I need to go, so sometimes I have to take multiple trips which is very frustrating”.

Jovita highlighted that the most convenient means of getting around was by using a Taxi or Uber, however, both were an expensive means of transport. Jovita further described how she had to curtail her outings when her vision got worse because she felt her transportation options were limited:

“[...] so, the most convenient means of transport is using an Uber, but those are so expensive these days. [...] I’ve not tried any other means of getting around except the bus, taxis, or paratransit, because I don’t really need to get around so often. I mean, when my vision got really bad, I had to stop most of my outings, so most times I just stay home except something important comes up”.

The influence of physical infrastructure on community mobility. Jovita narrated her experiences with the sidewalks in her neighbourhood, specifically how some of the sidewalks could be potential hazards for people with visual impairments due to their uneven nature:

“[...] I’d say that my experience with the sidewalks have not been so bad. I mean I use the sidewalks every other day when I go out on my walks. It’s just that sometimes, you notice that some of them are rather uneven and that can be a disaster for us people like us who are poorly sighted”.

Jovita described how the poor state of the sidewalks served to restrict her community mobility. For example, she described an experience she had on an uneven sidewalk where she almost tripped, and how this experience made her fearful in that moment:

“I feel more comfortable taking walks around my area because I’m quite familiar with the terrain”. [...] I noticed that most of the sidewalks are okay, but some have uneven surfaces, at times, there’s like trash on them, I guess from people who are walking by. On one occasion, I tripped on some wet leaves. I didn’t know they were slippery, so I just walked right on top of them, and I slipped and lost my balance. Good thing I didn’t land on the floor, because that would have been a different story. But I’m glad I was able to gain my composure, I guess having my cane helped with that. I had to cut my walk short that day, because that gave me a fright”.

When narrating her experience with the physical infrastructure in her community, Jovita also disclosed how frustrating it is for her to try and cross at busy intersections, such as the one at Masonville-Fanshawe:

“The Masonville Fanshawe intersection. Oh my goodness, it’s a nightmare on some days trying to get across that intersection. I have to use the intersection to cross the road when I go to the mall and it’s a very frustrating experience”.

She went on to describe one of her experiences with crossing the intersection on a day when the audio signals were faulty:

“[...] so, I was the intersection, and I don’t see the sign colors clearly to know when it’s time to cross. That day, the audio signal wasn’t working so I didn’t know when it was time for pedestrians to get across. I stood there for about 7mins before I decided to ask someone to help me across the road. The person helped me quite alright, but I felt so sad and frustrated”.

Jovita further explained that she felt unsafe when crossing busy intersections due to the recklessness of some of the drivers:

“I mean there’s always the thought that an impatient driver will run into me while I’m getting to the other side. The drivers these days drive with such impatience that you wonder where everyone is rushing to. It’s startling the rate at which some of them beat red lights. It’s frightening and I wonder why most people are in such a hurry”

Suggestions to support community mobility. Towards the end of our second interview, Jovita made various pointed suggestions to support her community mobility as an older adult living with vision loss, such as her recommendation to include more audio cues in the environment both at crosswalks and on public transit:

“I just feel like if there were more audio cues for people like us, it would make getting around a little easier. Its already difficult as it is. But I don’t wanna get on the road and depend on people to help me cross because the traffic signals have no audio signals. I also don’t want to get to the bus stop and struggle to get on a bus because I don’t know what bus is coming. We shouldn’t have to beg for these things, especially as seniors”.

“I feel like all the bus stops need to have audio announcements. Majority of the bus stops I’ve used do not have audio announcements, so how do I know what bus is coming or when exactly my bus will arrive?”

Jovita also suggested that well-kept sidewalks would support the community mobility of people with vision loss:

“It makes it a lot easier to move around when you’re certain that the sidewalks are free of stuff that may cause you to fall or something”. [...] I think they should be properly maintained. Not like they are doing a bad job now, but I feel like more can be done. I mean, it’s the Fall season and the leaves are all over the place. I expect them to be cleared and the mess reduced. It makes it easier especially if you’re walking in unfamiliar territory.

Jovita disclosed the importance of educating the public on how to relate to people who are visually impaired and explained the importance of people recognizing that a visual impairment does not mean that a person is incapable or dependent:

“I feel like it’s important for people to understand that just because someone has a disability doesn’t mean they can’t be independent and get around on their own. with a little extra planning and help from others, it’s definitely possible.”

Jovita further suggested that more support should be provided for people with vision loss when they are out doing activities such as shopping. She explained that it would be nice to have designated staff who were available to support people with visual impairments to improve their shopping experience:

“I would also like to suggest that more support be provided to people like us when we go to the malls and outdoor places. I mean, its already challenging getting to the mall, then you’re also face with the challenge of getting your items yourself. Its so difficult to see the labelling on these items even with glasses on. It would be great to have staff designated specifically to help people who have poor sight.”

Jovita also bemoaned the expensive cost of transport. She stated that more affordable transport options should be provided for older adults with ARVL:

“I also think that more affordable transport options should be provided for seniors like us who have vision problems. I mean it shouldn’t cost them so much to arrange an accessible means of transport for us. [...] because most times, a lot of us may not be as daring as myself and use the buses. They have to rely on using Uber or personal Taxis which are very expensive. Your family and friends may not always be available, and what if you really need to go out. I don’t know, it

doesn't seem fair that we have to struggle to get by each day, when the government can make things easier for us."

4.3 Kris's Narrative

Kris is a 71-year-old man who was a construction worker before he retired. He was involved in the construction and renovation of numerous commercial buildings around Canada before his retirement. Kris has been divorced for over 10 years. He lives in his house alone in London, Ontario, as his children and their families live in Calgary. Kris described himself as a hardworking man who is known for his strong work ethic and love for building things with his own hands. Kris loves to have fun by spending time with his friends. When I offered Kris the option to hold the interview sessions, he opted to do it over the telephone.

Loss of independence - Is history repeating itself? Despite knowing that his father had gone blind from glaucoma, Kris never thought it would happen to him. He thought that if he could see, everything was fine. But one day, Kris was driving on Highway 401 when he almost had a major accident. He didn't see a truck on his side, and he was completely startled. He realized that something was wrong with his eyes, and he went to see his Optometrist. To Kris's shock, he was told that he was almost at stage four of glaucoma, and his driver's license was suspended as a result. He confirmed that he wasn't happy about losing his license; however, he had no choice.

Kris was worried about losing his independence after being told he could no longer drive. He lived alone and didn't want to become dependent on others, but he was afraid that he would end up in a care home if he went completely blind. His two children

lived in Calgary with their families, and his nephew lived in Toronto, so he was used to living on his own and doing things by himself. In Kris's own words:

"[...] I mean I watched my dad wake up one morning completely blind and it's not something I want to experience. They assured me that at the stage I was in, they couldn't salvage the lost vision, but they could preserve what was left". [...] I was still seeing at the point cos I mean, I drove myself to the Optometrist, so it was kinda sad when they said I can't drive anymore, and my license would be taken from me. I was pissed because it meant I would have to still be somewhat dependent on people. My stepmom had to do everything for my dad, and I know how difficult it was for everyone. So, I was just worried that I wouldn't get to that stage because it would be really difficult for me as I live alone here, and I don't want to end up in one of these homes".

Kris harboured apprehensions regarding the possibility of losing his eyesight, akin to his father's experience. However, his Optometrist provided reassurance that his present visual capacity could be conserved. Kris came to the realization that he had been neglecting the value of his eyesight and subsequently resolved to take remedial measures. He adhered to the therapeutic regimen recommended by the Optometrist and implemented certain modifications to his lifestyle, including the adoption of a more nutritious diet, increased physical activity through regular walks, and consistent attendance to scheduled Optometrist consultations. He articulated his emotional state as follows:

“It was a real wake-up call for me, and I realized that I had been taking my eyesight for granted. I started following the treatment plan that my Optometrist prescribed, and I made some lifestyle changes to help preserve what was left of my vision. I started eating healthier and taking more walks. I also started checking my eyes more often, and I made sure to attend my appointments with my Optometrist regularly. I mean realizing that your entire existence is dependent on someone else is not something nice to be experienced”.

Friends and their role in supporting community mobility. Kris acknowledged that he had a couple of friends who were willing to help him get around town, but at first, he was reluctant to ask for help as he didn't want to be a burden. However, as time went on, he learned to see it as an opportunity to build closer relationships and strengthen his bonds with his friends. With the support of his friends, Kris was able to find alternative transportation options and continue to live his life to the fullest. He learned to appreciate the small things in life and focus on what he could do, rather than what he couldn't:

“It was a challenge, but I was fortunate to have a supportive group of friends who helped me get around. [...] At first, it was difficult for me to ask for help. I had always been independent and self-sufficient, so it was a big change for me. But as I got used to it, I realized that my friends were happy to help and that it was actually a good way for us to bond and strengthen our relationships. So, over time, I became more comfortable with asking for help and learned to see it as a way to connect with others and build a supportive network”.

Kris described the extent of support his friends gave him, including travelling on the bus with him as it was a new experience for him. This helped him build more self-confidence and strengthened his resolve to maintain his independence:

“I practiced using the bus with a friend, and we would plan our trips ahead of time so that I would feel more confident when I was on my own. And as I got more comfortable using the bus, I started to feel more independent and capable”.

Kris also narrated how his friends supported him by taking the sighted guide training with him although they never got to use it. He explained that he found the training helpful, but has not yet utilized it because he is still able to see straight ahead:

“Yes, I did learn the sighted guide training, but I never had the opportunity to use it with my friends. I mean, I think it would have been awkward for us because I can see straight ahead, I just have issues with making out faces and corners. [...] and also learning the sighted guide training gave me a better understanding of how to communicate effectively with my guide, and how to use my other senses to orient myself in new environments. It also helped me understand how to ask for and accept help when needed. It was a valuable experience and I'm glad I learned it, but I didn't find it necessary to use”.

The use of assistive technology to support community mobility. While narrating his experience with community mobility, Kris highlighted that some technological options were of great help in navigating his environment, such as the London transit app that showed the bus schedule in real time. In addition, Kris mentioned

that he used a smartwatch, with audio navigation, to get directions and guidance when he was out in the community:

“I also found that using the London transit app that provides real-time bus information and alerts, was very helpful. It allowed me to plan my trips more easily and gave me the information I needed to feel confident and in control when using the bus. [...] I’ve also been using a smartwatch with audio navigation, and it’s been really helpful. It provides me with real-time directions, tells me when I’m getting close to a turn, and it also alerts me if I’m going in the wrong direction”.

Kris also discussed his experience with using the white cane, highlighting both pros and cons associated with using it. On one hand, the white cane contributed positively to his safe navigation around his community, while on the other hand he had to deal with negative reactions of people towards him when using the white cane. Kris mentioned that the white cane helped him during his walks though, at first, he felt insecure about using it:

“[...] One of the biggest challenges was getting used to using it effectively. It took some time and practice to get the hang of it, but eventually, it became second nature to me. Another challenge was dealing with people who don't understand the purpose of the white cane and may act strangely or avoid me because of it. But I've learned to ignore those people and focus on my own mobility and independence. [...] I always go out with my cane during my evening walks. I feel like it gives me some sort of stability and balance. [...] I used to feel insecure and self-conscious about the cane when I first got it, but now, I’m kinda used to it”.

The physical infrastructure and its impact on community mobility. When expanding more on the supports to his community mobility as an older adult with age-related vision loss, Kris was appreciative of the City of London for ensuring that the audio signals at crosswalks worked, as Kris described them as being helpful when he needs to cross a busy intersection. He was also appreciative of the audio cues in the buses as they helped him know when to get on and off the bus:

“[...] and there's also audio signals at crosswalks that help me know when it's safe to cross the street though they are not loud enough, but it's a good thing that they are there anyway. These are really helpful, especially when I'm crossing a busy road. It's also great to know that the city has audio cues on many of the buses which helps me know where I am and when to get off.”

Kris was also thankful for the tactile markings on the sidewalks that he felt with his white cane when taking walks. He appreciated the City of London for ensuring that these structures were in place to support the community mobility of people with visual impairments. He added that this contributed to his confidence and made him feel more confident when out walking on the road:

“[...] the tactile markings have been a huge help! They're usually raised bumps on the sidewalk that I can feel with the tip of my cane. It allows me to know when I'm approaching a street or a curb, and it also helps me keep my footing on the sidewalk. I can tell that the city has made an effort to make their sidewalks more accessible for those with visual impairments, and I really appreciate it. It makes

me feel more confident when I'm out and about, and it helps me feel more independent”.

During the interview sessions, while we discussed barriers to his community mobility, Kris mentioned that some buildings were difficult to access, due to the presence of multiple stairs which were difficult to climb as a result of his declining vision. This prevented him from going to visit his friends who lived in these buildings. Kris also expressed his frustration with a store, which he used to frequent, that changed locations and is now located in a building that is difficult to access due to stairs:

“One example of an inaccessible building is a friend's house that has several steps leading up to the front door. It makes it difficult for me to visit because I cannot navigate the steps safely. Another example is a store that I used to go to frequently, but it has now moved to a new location that is only accessible by stairs. It's quite frustrating”.

Kris talked extensively about the barriers to his community mobility as an older adult with vision loss. Firstly, he described his experience with crossing intersections, and he pointed out that the audio cues at the traffic signals were not loud enough, so sometimes it was a struggle to hear them and know when it's safe to cross. Next, he described his experience with the curbs, and how it was a struggle to get off the sidewalks because the curbs were not clearly marked:

“[...] You know when I'm trying to get across the road, I can't see the other end of the traffic sign, so most times I'm not sure if I should cross or not. The audio announcements do work, but at times they are not loud enough. [...] and some of

the curbs are not clearly marked so it makes it difficult to know when to get off the sidewalk”.

Kris went on to talk about the sidewalks and how they were poorly maintained, and unsafe for an older adult like him with vision loss. He described how, on some of the sidewalks, there were trash cans that obstructed the path of traffic and made it difficult to easily navigate:

“For example, some sidewalks are still not well-maintained, with cracks and obstacles that can be difficult to navigate. Some intersections don't have audio signals or tactile markings, making it difficult for me to cross the street safely. And also sometimes, there are also obstacles like trash cans or other items that block the sidewalk, which can make it difficult for me to get around safely”.

Experiencing fear as a barrier to community mobility. Kris narrated how he felt it was safer to stay home at night as an older adult with vision loss. He talked about how challenging it was because he couldn't make out people's faces and anticipate their actions and so even if it was an emergency that required his leaving his home, he would rather be accompanied by someone else, take a taxi, or stick to areas that are well-lit:

“Yes, going out at night is definitely a challenge for me. It's hard to see where I'm going, and I worry about tripping over uneven sidewalks or obstacles. I try to stick to well-lit areas and always carry my white cane, but I still feel a little uneasy. Sometimes, I'll have someone accompany me or I'll take a taxi. It's also harder to make out people's faces and assess their intentions, so it just feels safer to stay inside when it's dark. [...] I just don't go out at night anymore because my

vision is at its worst when the lighting is poor. I also don't go out except I have to, like take a short walk, or get some groceries. I use a taxi if I have to get to someplace quickly, like if I need to see my doctor, I mostly use a taxi, or a friend takes me.

Engagement in volunteering and how it shapes community mobility. Kris

narrated how he participated in volunteerism that required him to move around different areas in the city. Kris described his involvement with a charity organization that provided food and clothing to people who were homeless. He explained that he had to either take the bus or use a taxi to support his volunteer work. Having the opportunity to travel into his community independently gave Kris a sense of confidence and he expressed how appreciative he was that his volunteer work allowed him to contribute meaningfully to people's lives, make new friends, and build relationships. Kris also mentioned that some of the friends he had made through the volunteer work, have, at some points, given him rides and helped him get around town, demonstrating a sense of reciprocity in those relationships:

"[...] It's made me more confident in navigating unfamiliar areas and has helped me improve my community mobility. Plus, it's a great opportunity for me to give back and make a positive impact in others' lives. [...] I find that volunteering helps me feel more connected to the community, and it gives me a sense of purpose. It's a way for me to help others, and I love that. I'm not as isolated as I used to be when I first lost my vision. And, because I'm more connected to the community, I feel like I can ask for help more easily. I've also made some friends

through the organization, and they're always willing to give me a ride or help me get to where I need to go".

Changes in the environment that would support community mobility. During our second interview I asked Kris if there were any changes to the environment that he felt would support his community mobility as an older adult with vision loss. Kris suggested that obstacles should be removed from sidewalks, as this supports his movement as an older adult with ARVL. He went on to say that lighting up the sidewalks and parks around his neighbourhood would also be very helpful for him, as he navigates his environment, while also increasing his independence:

"[...] Some changes to support my movement would include ensuring that sidewalks are even and without obstructions. [...] Also installing brighter lights in areas where I walk at night, like the parks and around the neighborhoods, would make it safer for me to navigate and increase my independence."

Kris had experienced some difficulty navigating the steps leading to his friend's house and some shopping centers, and so he also suggested that buildings should be made more accessible for seniors with vision loss. He went on to suggest that public transport could be made more accessible if the audio announcements were in good working condition:

"Also making buildings and public transportation more accessible and ensuring that the audio cues or announcements are in proper working conditions would also be helpful."

Kris also talked about how helpful it would be if the public were educated on the challenges seniors with vision loss face and the ways to interact respectfully with them:

[...] Another important one would be educating the public about the challenges faced by people with vision loss and educating the general public about how to interact with people who use white canes can go a long way in creating a more supportive and inclusive environment”.

At the end of our conversation, Kris expressed how happy he was to have been a part of the study and hoped that his experiences would help to highlight the challenges that older adults with vision loss face while navigating their communities.

4.4 Jordan’s Narrative

Jordan is a 75-year-old man who was retired from commercial cooking. Jordan was divorced and he lived alone, but two of his children live in London, Ontario with their families. Jordan presented as a man who had a huge appetite for knowledge. He enjoyed learning new things and figuring out how things worked. Jordan had a positive mentality. He loved to look at the bright side of things and lived by the principle of making lemonade out of lemons. Jordan was cheerful throughout all our conversations, and he seemed excited to narrate his community mobility experiences to me. The interview sessions happened over the phone as that was the most convenient for him.

Moving forward after a vision loss diagnosis. Jordan was diagnosed with age-related macular degeneration five years ago. It was a “hard pill for him to swallow,” and it took a huge toll on his mental health. Jordan described being driven into depression by

the news of his diagnosis, and that led to him isolating himself from friends and family. At first, he was in denial and thought it was a phase that would pass. When he realized that the situation was not going anywhere, he decided to accept his diagnosis and figure out how best to live with it:

“[...] After I was diagnosed, I was definitely in denial. I couldn't believe that I had this condition that would impact my vision and potentially lead to blindness. I was in shock and didn't want to accept the reality of my situation. I lashed out at everyone who wanted to offer me help, and I was terribly depressed... I started to feel isolated and cut off from the world. I stopped going to social events and visiting friends, because I was afraid of getting lost or injuring myself. I felt like I was losing my independence, and that was a hard pill to swallow... [...] At first, I felt angry and frustrated. I felt like this was unfair and that I had been dealt a bad hand. I didn't understand why this was happening to me. It was a very emotional and difficult time for me. But as time went on, I realized that I needed to face my situation head-on and not let my emotions control me... Eventually, after battling with my mental health, I was finally able to come to terms with my diagnosis and find ways to live with it. I started to educate myself on my condition and learn what I could do to manage it. I learned about low vision aids and other technologies that could help me maintain my independence and mobility”.

Jordan decided to take steps to support himself through the experience of living with age-related macular degeneration, including making more frequent visits to his Optometrist and educating himself about the actions that would help him live well with his condition. Being someone who loved learning new things, he immersed himself in

every article he could find on macular degeneration. He gathered all the information he could from his Optometrist, friends with low vision, and some articles he found online:

“[...] I communicated more with my Optometrist. They were a great resource for me and provided me with a lot of information about age-related macular degeneration and what to expect. They also referred me to support groups and organizations like the CNIB and CCB that could help me... and I also did a lot of research online, reading articles and watching videos about age-related macular degeneration and low vision. I wanted to learn as much as I could so that I could be proactive in managing my situation... I also connected with other people who had been diagnosed with age-related macular degeneration and vision loss. Talking to others who were going through the same thing was really helpful for me. It helped me feel less isolated and gave me a sense of community. I learnt from their experiences, and I got a lot of tips and advice from them”.

Fear and withdrawal from social and physical environments. When narrating his experience with receiving his diagnosis, Jordan explained that he was worried about being a burden, which led him to alienate himself from friends, family, and social events. Jordan explained that after his diagnosis, he was afraid of falling and getting hurt because of his deteriorating vision, which further solidified his decision to limit his outdoor mobility, thereby isolating himself from people. He also acknowledged that his decision was born out of shame and guilt from not being able to participate as well as he used to:

“[...] I was scared that I wouldn't be able to participate in social events and activities like I used to, and I was worried that I would be a burden on others.

Then as my vision worsened, I found it harder and harder to see things clearly. I was afraid of falling or getting lost, so I started to avoid going out in public as much as possible. I stopped attending social events and visiting friends because I didn't want to feel embarrassed or like I was holding others back... I think my decision was also driven by a sense of shame and guilt. I felt like I was letting myself and others down by not being able to participate in these activities like I used to. I didn't want to be seen as a burden, so I withdrew from social situations... So, like I used to play golf with a couple of friends, and it became so difficult for me to see the ball even with my glasses on. I felt embarrassed at how I would be perceived and so I decided to stay away”.

Jordan acknowledged that living in fear was not healthy and having a highly positive personality, he decided to face his fears and reach out to his loved ones who were very willing to support him:

“[...] Well, over time, I realized that this was not a healthy or productive way to live. I had to find ways to manage my condition and stay connected to the people and activities that I loved. That was the point I knew I had to stay positive and look on the bright side of things “

The role of the physical environmental in shaping community mobility.

Jordan highlighted the physical infrastructure as contributing the most to his challenges getting around his environment. He explained that some of the sidewalks were hazardous for people who are visually impaired because there are cracks that could lead to falls:

“[...] well, one time I was walking to the Shopper’s drug mart to refill some of my medications. It was around 7pm and the sidewalk was poorly lit and there were a lot of cracks and uneven surfaces. I was using my white cane, but it was still difficult to see where I was going. At one point, I tripped over a crack in the sidewalk and stumbled. I was able to catch myself and avoid falling, but it was a scary moment for me... Another time, I was going to get coffee at the Tim Horton’s shop down my street, I was walking along a sidewalk that I had used many times before, but this time, I noticed that there was a large crack that I hadn’t noticed before. So, as I was walking and trying to avoid it, I stumbled and nearly fell, which was a scary experience”.

Jordan also shared stories about the traffic signals and how they served to limit his community mobility. Jordan expressed disappointment that some of the audio signals at the intersections did not come on when they were pressed and this made crossing these intersections challenging:

““[...] One specific example that comes to mind was when I was trying to cross the intersection around the south of Wonderland. I was waiting for the audio signal to indicate that it was safe for me to cross, but it wasn’t working. I was unsure of when it was safe to cross, and I didn’t want to take any chances and put myself in danger... Crossing busy intersections is always a challenge for me, but when the audio signals are not working, it can be even more difficult and stressful. I think it’s important for people to understand that small barriers, like a broken audio signal, can have a big impact on the daily lives of people like me with vision loss. It can be easy to take these things for granted when you have full

sight, but for people with vision loss, these small barriers can be major obstacles that prevent us from participating in society as much as we have loved to”.

Jordan highlighted that to overcome this challenge of crossing the road when the audio signals were not working, he had to apply other strategies such as using his white cane to feel for vibrations or listening for the sound of cars, which helped him cross:

“[...] I had to rely on other cues like listening for the sound of cars stopping or approaching or using my white cane to feel for any vibrations in the ground. It can be a bit nerve-wracking, but I have learned to be extra cautious and take my time”.

Compensatory strategies to support community mobility. Jordan was not a fan of technology, however, he used some ‘apps’ that helped him navigate his neighbourhood, such as Google Maps, which Jordan used for detailed directions to get to his destination. Jordan also talked about an ‘app’ called “Moovit” which he described as helpful for taking the bus for people who are visually impaired. Jordan described the features of the ‘app’ and how it provided a detailed schedule of available bus routes:

“I mostly use the Google Maps on my phone to find my way around my neighborhood, get to appointments, and plan trips. It provides me with detailed information about my surroundings, such as the distance to my destination, the estimated time of arrival, and the route I need to take. I’m not really big on technological devices, I mean, it feels like there’s a new one every day. How do we keep up?... so, there’s this app a friend introduced me to, it’s called the Moovit and its quite helpful for people like us with vision challenges who take the bus. It

maps out all the available routes and the buses. It also has a voice command that helps with the direction and stuff. Taking the bus is already a problem in itself for me, so the Moovit does help in that regard”.

When I enquired about his experience with the white cane, Jordan explained that despite receiving weird looks from people, he was pleased with the cane and felt that it supported his community mobility, so he did not allow people’s reactions to the cane to deter him from using it:

“Using the white cane and high contrast clothing were two tools that really helped me regain my independence and support my mobility [...] yes, in the sense that it gives me the stability I need to get around easily. Though sometimes I feel like I get this weird looks from people. I don’t mind anyway.”

Jordan explained that wearing high contrast coloured clothing also aided his mobility in the sense that they produced a contrast between his clothing and the environment which helped him see more clearly and avoid obstacles that would have otherwise caused him to fall:

“I wear brightly colored clothing with high contrast patterns to help me see my surroundings more clearly. They have like really bright colours like yellow and orange. This has been especially helpful when I’m walking or crossing the street, as it makes it easier for me to see where I’m going and avoid obstacles... [...] For example, if I’m wearing a bright yellow shirt and I’m walking on a sidewalk that’s surrounded by green grass and trees, the high contrast between my shirt and the environment makes it easier for me to see where I’m going. Also, if I’m

wearing a black shirt and I'm crossing a street with a white crosswalk, the high contrast makes it easier for me to see the crosswalk and avoid obstacles".

Social participation as a support to community mobility. Jordan narrated his experiences with attending church meetings and other activities organized by the local vision support group where he was a member. He talked about how he walked to his church meetings, took the bus to some of the meetings organized by his support group, and on some occasions, the organizations provided transport for members when they held events. Jordan explained that attending and participating in these social activities helped him maintain his positive outlook on life and stay connected to people with similar challenges:

"We have regular meetings where we discuss topics related to vision loss, share information about low vision aids and other resources, and offer each other advice and encouragement. It helps a lot to see there are other people like you and I love that it helps me stay positive... it also helps me forget most of my worries, everything seems to be falling apart but we must do everything we can to stay sane in the chaos".

Jordan confirmed that his social interactions preserved his positive outlook on life. He described his experiences by giving instances of when he had to ask for help at clothing stores or when he went grocery shopping. He explained that he remains positive asking people for help, even though it can be intimidating:

"[...] Asking store employees for help is something I've had to get used to, but it has been a positive experience overall. The employees are usually very willing to

assist me, and they are always kind and understanding. One of the things I appreciate about asking for help is that it allows me to feel more confident and secure when I'm shopping. And also asking for help gives me the opportunity to learn more about the store and its layout. I'm able to learn more about where things are located and how to find what I need... I feel like I've had a really positive experience asking people for help. It feels intimidating at first, but people are generally kind and always help out”.

A strong support system as an enabler to community mobility. Jordan acknowledged that his friends and family proved to be a huge help in getting him around his community. He shared that they were always ready to help him, and he was grateful for their support:

“I also receive assistance from friends and family members. They will often accompany me when I go grocery shopping or to appointments, and they are always willing to lend a hand if I need it. And with the help of my family here and some of my friends, who I would say are a really great support system, I was able to regain my confidence and start participating in social events again”.

Recommendations to support community mobility for older adults with ARVL. Towards the end of our conversation, I asked Jordan to tell me some of the improvements that should be made in the environment to support his community mobility as an older adult living with age-related vision loss. Jordan listed some of his suggestions which included maintaining the sidewalks, fixing the audio signals at traffic signs, ensuring that taxis are accessible for older adults with ARVL, providing ride-sharing

services for seniors with vision loss, and encouraging local businesses to provide more accessible shopping options for people with vision impairments:

“[...] the sidewalks need to be maintained. The cracks and potholes should be covered to make it easier and safer for us with vision loss to get around. Also, fixing the audio signals at traffic lights. It would be very nice if more accessible transportation options were provided...I would suggest accessible taxis, and more effective ride-sharing services for people like us. I also think it will be helpful if the public is more aware about our needs...I also think that local businesses should provide more accessible services to simplify our shopping experiences...I mean like if it’s possible to provide audio descriptions of products, then make like large print labels, and probably braille on some product packaging for people who are completely blind”

Finally, Jordan believed that if these suggestions were implemented, it would encourage people, who are visually impaired, to engage in more activities outside of their homes:

“[...] I mean if some of these suggestions can be implemented, communities can become more accessible and inclusive for people like me and would probably encourage most of us to engage more with society.”

Chapter 5: Results

This chapter includes a discussion of the themes discovered through thematic analysis as well as comprehensive demographic information for each of the four older adults with ARVL enrolled in this study. I utilized the individual narratives of each of the four participants in order to create overarching themes that reflect the stories and experiences across my participant sample. All identifiable information has been removed, and pseudonyms have been used to help safeguard participant confidentiality (including the names of other people and places) (see Table 1 for participant demographic data).

Although all participants self-identified as legally blind, three of the four participants reported having macular degeneration, while one participant reported having glaucoma. The participants ranged in age from 71 to 75. There were two females and two males. All participants had children and were either divorced or widowed. Three participants had an annual income between \$50,000 and \$100,000, with one participant reporting earning less than \$50,000.

Table 1: Summary of Participants' Demographic Information

Participants' pseudonym	Hope	Jovita	Jordan	Kris
Gender	Female	Female	Male	Male
Age	73	72	75	71

ARVL diagnosis	Age-related macular Degeneration	Age-related macular Degeneration	Age-related macular Degeneration	Glaucoma
Racial/Ethnic Group	White	Black	White	White
Level of education completed	College	University	University	College
Self-described acuity	Legally blind	Legally blind	Legally blind	Legally blind
Marital status	Widowed	Widowed	Divorced	Divorced
Children	Yes	Yes	Yes	Yes
Annual household income	<\$50,000	\$50,000-100,000	\$50,000-100,000	\$50,000-100,000

This study delved into four distinct categories of the environment as per the participants' narratives, namely: the physical environment, the social environment, the cultural environment, and the political/institutional environment. A diverse range of overarching themes were derived from the aforementioned environmental categories and are depicted in Figure 4.

Figure 4: Themes identified through data analysis



5.1 Moving from private vehicles to public transport

The present theme centres on the narrative accounts of the participants regarding their shift from utilizing personal cars to navigating their communities through alternative modes of transportation. The participants expounded upon the difficulties they

encountered, with particular emphasis on the apprehension stemming from the forfeiture of their autonomy.

Prior to their low vision diagnosis, all participants drove their own private vehicles. Interestingly, the participants' experiences following a diagnosis of vision loss were remarkably comparable. For example, the study's participants reported experiencing emotional distress subsequent to the revocation of their driver's licenses, as it signified a loss of personal autonomy and ease of transportation, thereby impeding their community mobility. For instance, Hope described how she felt confused in terms of how she would get around her community after having her license revoked:

“I was diagnosed in, the date was March 16th, 2020, the day we got locked down for Covid, and that was the day they took my driver’s license. [...] I live alone, I don’t have any relatives in London, so it was kind of like, okay, don’t have a license now, so what do I do?”

Kris described how frustrated he felt when his driver’s license was revoked because he wasn’t going to be able to go where he wanted to as easily as he used to:

“Losing my driver's license was a very difficult time for me. It was a loss of independence and mobility that I had taken for granted. I felt frustrated and helpless because I wasn't able to go where I wanted to go on my own. It was a big adjustment, and it took me a while to come to terms with it.”

After losing their driver's license, participants either began to rely on friends or family for rides or began to use other transport options. For example, Jovita had to rely on her daughter for rides to get where she needed to go:

"[...] I can't drive because they took my license after my diagnosis. Getting around alone is pretty frustrating, though, and most times, I have to depend on my daughter's schedule as she helps me get around to most of the places that I need to be at. She has really been helpful in that regard"

The participants also described how they began to use alternative modes of transportation, such as taxis, paratransit, and buses. There was a general sentiment that taxis were the preferred transport option given their convenience, despite being the most expensive transportation option. For example, Kris narrated how taxis or Uber were his go-to option, albeit expensive, as it provided him with a sense of independence:

"Using taxis was my preferred means of getting around after losing my driver's license. While it was more expensive than other options, it provided me with the independence and control that I was looking for. I could order an Uber when I needed one, and it would take me directly to my destination. I didn't have to worry about navigating public transportation or relying on others for help."

Jovita further reinforced the point about taxis and Uber being the most convenient means of transport after losing a driver's license, while further recommending changes to the paratransit service to make it a more viable transportation option:

“Yea, so the most convenient means of transport is using an Uber, but those are so expensive these days. I feel like it would be helpful if the paratransit services had more flexible scheduling and expanded routes to cover more areas”

Two of the participants shared similar sentiments about using paratransit, with each of them commenting on how inconvenient it was to use, particularly the restrictive scheduling, which makes you book 72 hours in advance. When asked about utilizing other transportation options, for instance, Hope explained that using paratransit was inconvenient as she needed to book 72 hours ahead of the scheduled time:

“I am aware of paratransit and some of the other things, but I mean, you have to book 3 days, 72 hrs in advance, that kind of thing.”

The participants also identified comparable barriers to accessing city buses, such as a lack of audio announcements on some buses, which made it difficult to know when to get off the bus. Despite his friends teaching him how to use the city bus, Kris still acknowledged difficulties, especially because the signs at the bus stops were difficult to read for people with vision loss due to the small lettering, resulting in him having to ask strangers for help:

“I practiced using the bus with a friend, and we would plan our trips ahead of time so that I would feel more confident when I was on my own. [...] “At first, it was very frustrating because I wasn't familiar with the routes and schedules, and the bus was often crowded and difficult for me to navigate with my vision loss. It was also challenging because the bus stops were often not accessible, and I had to rely on others to help me get on and off the bus.”

The participants suggested recommendations to support their community mobility that involved providing accessible transportation options, such as accessible taxis and more ridesharing options. In terms of accessibility features, the participants recommended audio announcements on public transit as well as training transit workers on how to assist passengers with vision loss, including assisting them with boarding and disembarking the vehicle, guiding them to their location, and providing information as required about their surroundings. For instance, Hope elaborated on this when she shared that when she gets off paratransit, there's nobody to help her to her destination and provide the help she requires when she gets there:

“...When I'm in the grocery store, that's when I need help... and I mean the paratransit drivers aren't gonna park the bus and come in and help shop. [...] Once I reach my destination, there's nobody to help”

5.2 Elements of the physical environment act more as barriers than facilitators to community mobility

The present theme pertained to the manner in which the physical infrastructure functioned as either an obstacle or facilitator to the community mobility of the participants. In light of the accounts provided by the study participants, it can be inferred that the physical infrastructure served as more of an impediment, than an aid, to community mobility.

The study's participants identified a number of impediments related to physical infrastructure that hindered their ability to move around their community and caused them to feel unsafe. The impediments encountered by the participants encompassed

challenges in identifying curb cuts, variations in pavement and pavement demarcations, uneven surfaces, and obstructions on sidewalks that posed potential tripping hazards. Additionally, apprehensions were expressed regarding the navigation of high-traffic intersections. These obstacles contributed to their fear of going out, thereby limiting their community mobility. For instance, when asked about areas in her community that were difficult to navigate, Hope described how she was unable to see the pavement markings and how she was compelled to return home rather than attempt to cross a busy intersection:

“[...] like I said pavements, I think it would be better if edges of pavements, sidewalks, were painted bright colours; I really find it difficult with them even though I can see the colours. [...] And there was one day I decided to be brave, and I went for a walk going out the back door, so I didn’t have to go through the parking lot. And I got to the sidewalk to the corner, but there was no way I was gonna cross. There were way too many lanes of traffic, and there is no way for me to cross a busy intersection like that. I turned around and came back. No way would I attempt that on my own”.

The remaining participants reported comparable encounters with crossing busy intersections, which engendered feelings of insecurity. This was attributed not only to the inadequacy of allotted time at crosswalks, but also to the perceived impatience of drivers, which engendered uncertainty as to whether they would yield to pedestrians who were slow in crossing the busy intersection. Jovita explained this during her second interview:

“[...] on the days when I go out, and I have to cross the intersection, I still feel unsafe. I mean, there’s always the thought that an impatient driver will run into me while I’m getting to the other side”.

The participants also highlighted the unevenness of sidewalks and the presence of obstacles, which posed tripping hazards for older adults with ARVL. They shared experiences of near-tripping incidents and a general sense of fear while navigating the neighbourhood. It was clearly described by Jovita, who recounted a time when slippery debris on the sidewalk nearly caused her to fall:

“I noticed that most of the sidewalks are okay, but some have uneven surfaces; at times, there’s like trash on them, I guess from people who are walking by. On one occasion, I tripped on some wet leaves. I didn’t know they were slippery, so I just walked right on top of them, and I slipped and lost my balance. Good thing I didn’t land on the floor because that would have been a different story. But I’m glad I was able to gain my composure, I guess having my cane helped with that. I had to cut my walk short that day because that gave me a fright”

Several participants acknowledged the provision of infrastructural support to facilitate community mobility, including the presence of audible cues at traffic signals. However, they were often broken or simply were not loud enough for participants to hear at busy intersections with heavy traffic, which caused participants to feel unsafe, including Kris, who stated:

“...When I’m trying to cross the road, I can’t see the other end of the traffic sign, so most times, I’m not sure if I should cross or not. The audio announcements are mostly not working, and it makes me feel unsafe”.

Some of the participants discussed poor lighting on some streets which restricted their community mobility, particularly during the evening hours. For instance, Jordan described how he went out to get medications in the evening, but the poorly lit sidewalks served as a barrier to his community mobility and almost caused him to fall:

“Well, one time I was walking to the Shopper’s drug mart to refill some of my medications. It was around 7 pm, and the sidewalk was poorly lit, and there were a lot of cracks and uneven surfaces. I was using my white cane, but it was still difficult to see where I was going. At one point, I tripped over a crack in the sidewalk and stumbled. I was able to catch myself and avoid falling, but it was a scary moment for me”.

The participants discussed some tangible modifications to the built environment which they believed should be implemented to facilitate community mobility, such as Hope, who suggested maintaining the paintings on roads and crosswalks:

“In shopping centres and in parking lots and things, if the dropped curbs were painted very bright yellow or if the crosswalks were painted bright yellow, I know some of them are, but they wear down, and the city isn’t great at getting out there and refurbishing the painting jobs on those areas.”

Jovita was concerned about the absence of audio announcements at certain bus stops and suggested that this be remedied:

“I feel like all the bus stops need to have audio announcements. The majority of the bus stops I’ve used do not have audio announcements, so how do I know what bus is coming or when exactly my bus will arrive?”

Most of the participants voiced their concerns about the sidewalks and suggested that they be maintained by removing obstructions, ensuring they have tactile ground surface indicators (TGSI), levelling uneven surfaces, and ensuring adequate lighting. This was best captured by Kris, who stated:

“Some changes to support my movement would include ensuring that sidewalks are even, without obstructions, and have clear tactile markings to help with navigation, especially at intersections and crosswalks. [...] Also installing brighter lights in areas where I walk at night, like the parks and around the neighbourhoods, would make it safer for me to navigate and increase my independence”.

5.3 The use of assistive devices & compensatory strategies to support community mobility

This theme is focused on the facilitators of community mobility that the participants employed while navigating their environments. All participants discussed utilizing assistive devices and compensatory strategies to facilitate their community mobility, including a white cane, markers of vision loss (such as pins or stickers attached

to clothes), GPS-assisted mobile devices, software applications, wearing high-contrast clothing, limiting community mobility to certain times of day, listening for traffic surges, and using landmarks in the environment to help cue oneself to where they were in the neighbourhood.

Despite acknowledging the fact that the white cane facilitated their community mobility, some of the participants shared that it made them feel uncomfortable to use it. Jovita, for instance, explained that the white cane served as a reminder that she had lost her independence:

“I’m not so comfortable using the white cane because it kinda reinforces the idea that I’ve lost my independence.”

Hope also felt uncomfortable, despite the physical support provided by the white cane, because she did not want to publicize her difficulties with her vision loss:

“It’s not my favourite thing to do, I know the purpose of it is to exactly identify the fact I have low vision, I don’t know, it’s a personal thing, I just don’t like advertising my issues”

The participants discussed using additional markers of vision loss, such as pins or stickers that attached to clothing and identify the person as having vision loss, however, opinions regarding their use varied. For example, Kris did not like using them because he didn't want to attract attention to his condition, while Hope explained that although she didn't like using the white cane, she didn't mind using the pins/stickers because they were helpful:

“I don’t mind; it’s funny I don’t like using the cane, but I don’t mind wearing those pins or the stickers that go on your jacket. I don’t mind those things at all, and I find them helpful.”

When discussing phone technologies and ‘apps’, the participants highlighted how using their phone’s GPS supported their walks around their neighbourhood. For example, Jovita explained how, and why, she started using Google Maps on her phone to support her walks around the neighbourhood:

“So, I use the Google Maps on my phone. When I moved in with my daughter, I wasn’t familiar with the area, so I didn’t really know my way around. That’s when I was like, yea, I could use the maps to get around since I had some experience using it when I used to drive.”

In other instances, some of the participants described how apps were beneficial to their community mobility and how they used apps to either get on the bus easily or navigate their environment more easily:

“[...] there’s this app a friend introduced me to, it’s called the Moovit and it’s quite helpful for people like us with vision challenges who take the bus. It maps out all the available routes and the buses. It also has a voice command that helps with the direction and stuff. Taking the bus is already a problem in itself for me, so the Moovit does help in that regard”
(Jordan)

“I also found that using a smartphone app that provides real-time bus information and alerts was very helpful. It allowed me to plan my trips more easily and gave me the information I needed to feel confident and in control when using the bus” (Kris)

When describing other options and strategies that promote community mobility, Jordan described a unique strategy of wearing high-contrast clothing to help him see his surroundings more clearly:

“For example, if I'm wearing a bright yellow shirt and I'm walking on a sidewalk that's surrounded by green grass and trees, the high contrast between my shirt and the environment makes it easier for me to see where I'm going. Also, if I'm wearing a black shirt and I'm crossing a street with a white crosswalk, the high contrast makes it easier for me to see the crosswalk and avoid obstacles.”

The participants acknowledged that adhering to certain routines with respect to walking routes served as a helpful strategy to facilitate their neighbourhood mobility. For example, Kris explained how he limited his community mobility to daytime only because the lighting is too poor to go out at night. He also described his difficulties with crossing at busy intersections, but he has developed an adaptive strategy that includes listening for oncoming traffic surges. He stated:

“[...] I just don't go out at night anymore because my vision is at its worst when the lighting is poor. I also don't go out except I have to, like take a short walk, or get some groceries. [...] Crossing busy roads can be difficult as I can't see traffic

coming, but I've learned to listen for cars and use my other senses to judge when it's safe to cross."

While narrating how challenging it was getting around his neighbourhood, Jordan described how he used landmarks in the environment to cue himself to where he was located in the neighbourhood:

"...But I've learned to approach these challenges by asking for directions or help from passersby or using landmarks like a specific tree or a particular store to help me get my bearings".

5.4 Social networks and their influence on the community mobility of older adults with ARVL

Based on the participants' narratives, social support refers to the amount and nature of the assistance received from friends, family, acquaintances, and strangers. By assisting with transportation and navigating public spaces, adequate social assistance can support the community mobility of older adults with ARVL. All the participants narrated how they received support from friends, family, acquaintances, or strangers. They all described how their friends and families stepped in to provide transportation for medical appointments, grocery shopping, and other essential tasks after they lost their driver's licenses. For example, during our second interview, Jordan provided a detailed description of how the help he receives from family and friends supports his ongoing community mobility:

“I also receive assistance from friends and family members. They will often accompany me when I go grocery shopping or to appointments, and they are always willing to lend a hand if I need it.”

Some of the participants described the difficulties they had when utilizing public transportation and how they often relied on fellow passengers at the bus stop to ensure they boarded the correct bus, as there were often no audio announcements. When narrating her experience, Jovita shared that, on one occasion, she got lost during a walk and had to depend on strangers for directions, which made her feel unsafe. She also described a situation where she had to rely on the help of strangers to get on the right bus:

“The only challenge I think I’ve ever experienced happened when I first got here and wasn’t quite familiar with the routes. I went on one of my long walks, and I think the GPS did not have the exact route mapped out. I got lost at some point, and I had to ask people around for help getting back home. I mean, I had to depend on the stranger’s directions to get back, and it made me feel unsafe. [...] The challenge was that I couldn’t see what was written on the bus stop signage to know if I was really at the right bus stop. There were no audio announcements at that stop. The announcements would have been helpful to let me know when the bus will arrive, and what bus will arrive so, I had to ask so someone who was also standing at the bus stop if I was at the right stop. The person helped me list the buses that were arriving, so I confirmed that I was at the right stop. When the bus arrived, I got, I had to confirm with the driver again and let him know where I was going. He was kind enough to assure me that he’ll let me know when we get to my stop.”

Although friends and family were willing to help the participants navigate the neighbourhood, some participants were reluctant to ask for help because they didn't want to be perceived as a burden. For instance, Jovita disclosed that she often takes the bus to avoid being a burden on her daughter:

“...My daughter gets so mad whenever I go out on my own and use the bus. But she works so hard, and I don't want to be a bother, you know.”

Other participants, like Kris, shared that although people were generally willing to help, he still felt a sense of apprehension about asking because he wasn't always sure how people would react to him:

“...sometimes I have mixed feelings about asking strangers for help. On the one hand, I appreciate it when people are willing to help, and I know that many people are kind and willing to assist those in need. On the other hand, I can be a little apprehensive because I'm not always sure how people will react, especially if they're in a hurry or not paying attention.”

Formal networks refer to community groups, societies, and organizations that foster interpersonal relationships and offer services or resources to assist older adults with vision loss in maintaining their independence and mobility (Lu et al., 2020; Kang, 2021). Overall, participants shared similar experiences with receiving assistance and resources from these organizations. For example, the CNIB primarily provided participants, and their family or friends, with sighted guide training, white canes, and software apps such as the “Be My Eyes” app. Jordan, for example, described how he learned new navigation

techniques from a low-vision specialist and found solace in a support group where he met other older adults who faced similar obstacles:

“I started working with a low vision specialist, who helped me learn new techniques for getting around my neighbourhood, like using a white cane and wearing high-contrast clothing, and I was provided with a magnifying glass to make reading easier. I communicated more with my Optometrist. They were a great resource for me and provided me with a lot of information about age-related macular degeneration and what to expect. They also referred me to support groups and organizations that could help me. I also connected with other people who had been diagnosed with age-related macular degeneration and vision loss. Talking to others who were going through the same thing was really helpful for me. It helped me feel less isolated and gave me a sense of community.”

The participant further described his experience with local support groups and how they helped him to foster a sense of community, thereby facilitating his community mobility:

“And I started participating in local programs and events specifically designed for people with vision loss. [...] Now, I feel more connected to my community than ever before. I've made new friends, and I'm actively involved in my local support group”.

Another participant, Kris also described how connecting with an organization that supports people with vision loss facilitated his community mobility. He explained that he learned new techniques regarding how to more easily get around his neighbourhood as an older adult living with vision loss:

“so I joined this organization that helps people like us with vision issues, the CNIB and I must say that they are quite helpful with the services they provide...they trained about 2 of my friends on how to help me walk and get around...I also got some reading devices, a white cane, and some stickers to place on my clothes.”.

5.5 Ableist perceptions of older adults with ARVL and its impact on community mobility

The participants, when addressing their social interactions in the environment, shared different experiences with respect to their interactions with people. Among the older adults, there was a prevalent concern about being seen as a burden by others. This anxiety often resulted in their withdrawal from social events, further isolating them from their community. For instance, Jordan revealed that he stopped going to social events because he felt guilty about the fact that his vision loss prevented him from being as active as he once was:

“...I was scared that I wouldn't be able to participate in social events and activities like I used to, and I was worried that I would be a burden on others. [...] I think my decision was also driven by a sense of shame and guilt. I felt like I was letting myself and others down by not being able to participate in these activities like I used to. I didn't want to be seen as a burden, so I withdrew from social situations.”

The participants stated that because of their vision loss condition, people viewed them as though they were unintelligent. For instance, while discussing her interactions with people, Hope shared that she experienced condescension from people in the

community. She found that they would speak loudly to her or treat her as if her intelligence was lacking. These negative interactions led Hope to spend more time at home, withdrawing from social activities:

“When you say to someone you can’t read something, then, first, their attitude changes, and not just raising their voice and that kind of thing; but I’ve really found in the last two and a half years that when people are aware that you can’t see, uhm... they also think your intelligence level is a little lower [...] Unless I’m going out with friends, I really do not enjoy going out. I used to be out a lot, I used to be out on my own, and no, it’s really very intimidating. For some of the reasons I just said, for the way people react, it has made me stay at home more for sure.”

Some of the participants struggled with the support they received from people in their environment. Jovita, for instance, appreciated the assistance she received from strangers; however, she struggled with the feeling that their help was rooted in pity due to her age and vision loss condition. She sensed that they viewed her as the "poor little blind lady," which made her uncomfortable:

“[...] People are quite helpful, I must say, but most times, I feel like they do it from a place of “oh poor little blind lady,” you know what I mean? I don’t like that feeling. So, I asked for help from one of the store assistants, and they left every other person to attend to me. [...] It’s frustrating, and it makes me feel sad. it’s like stripping you of the last shred of dignity you have left.”

Many of the participants discussed using various assistive devices; however, none were as packed with disability meanings as the white cane, with many participants acknowledging that their use of the white cane, while supportive of their community mobility, left them feeling embarrassed, uncomfortable, and feeling “disabled.” For Kris, he felt as though people avoided him when he was using his white cane:

“...another challenge was dealing with people who don't understand the purpose of the white cane and may act strangely or avoid me because of it.”

The study participants also discussed their safety when navigating their environment as older adults with vision loss. For example, Jovita highlighted that she felt unsafe walking alone in her neighbourhood. She worried about being taken advantage of due to her age and vision loss. To alleviate her concerns, she often walked with her grandson, believing that people would be kinder to her when accompanied by a younger person:

“I enjoy walking with him because he's patient, and he listens to all my silly stories. I also feel safe with him because, you know, it's easier to be patient with an old lady and a kid, right?”

The participants emphasized the need to educate the public on the needs of individuals with vision loss to best support their engagement in the community as well as how to interact properly with white cane users. They believed that raising awareness could help create a more inclusive and supportive environment for those with ARVL. Kris clearly depicted this when he stated:

“...another important one would be increasing awareness about the challenges faced by people with vision loss and educating the general public about how to interact with people who use white canes can go a long way in creating a more supportive and inclusive environment.”

5.6 Community mobility barriers stemming from political factors

Many of the findings within this theme are associated with barriers that have previously been identified in the first two themes. For example, although the barriers imposed by physical infrastructure have already been expounded in the second theme, the present theme introduces a discussion on the potential political and advocacy measures that can be taken to tackle such identified barriers.

As per the narratives provided by the participants, this theme pertains to various factors, including transportation policies, urban planning regulations, and the accessibility of government-funded services and programs for individuals with vision loss. These factors have significantly influenced the community mobility experiences of the participants. For example, the absence of audio signals at certain bus stops and traffic signals, as described in detail by the participants, may be the result of policymakers' and urban planners' lack of awareness, comprehension, or prioritization of accessibility concerns as it relates to persons with vision loss. When these concerns are not adequately addressed, they can result in environments that pose challenges for people with vision loss, such as navigating public transportation systems and crossing streets safely.

All the participants agreed that, despite the presence of some environmental supports, such as the presence of tactile ground surface indicators on some of the

sidewalks and audio cues at traffic signals, the government must do more to ensure that older adults with vision loss can easily navigate their communities. They brought up pertinent points regarding the fact that their needs were not taken into account by the government when discussing policies pertaining to community mobility. For instance, Jovita shared that she felt that the government was not attentive to the community mobility needs of older adults with ARVL:

“...It’s sad because I feel like the government is not attentive to the needs of older adults like us with visual problems. I mean, I don’t think putting in audio signals at appropriate places would cost the government so much, but it seems like nobody is aware of how difficult it is to live with poor sight, especially at old age.”

In the absence of adequate alternative transportation options due to poor transportation planning policies, older adults with vision loss may become more reliant on others for mobility, thereby diminishing their sense of self-efficacy and autonomy. All of the participants had their licenses revoked because of their vision loss diagnosis; however, there were no easily accessible alternative modes of transportation provided for these older adults that would allow them to easily navigate their communities. After having their driver's licenses revoked, all of the participants expressed concerns about losing their independence. Additionally, they were tasked with seeking out alternative modes of transportation by themselves. Jordan expressed his discontent with the unavailability of accessible transportation options and suggested that accessible taxis and more effective ride-sharing services be provided to support community mobility:

“...it would be very nice if more accessible transportation options were provided. I would suggest accessible taxis and more effective ride-sharing services for people like us.”

A significant community mobility barrier in the political environment arises when older adults with ARVL are not adequately represented or involved in the decision-making processes related to urban planning and infrastructure development. Their unique needs and perspectives may not be considered or addressed when they are not given a voice in shaping the design of public spaces and infrastructure, such as traffic signals. Some participants emphasized the need for government collaboration with older persons living with ARVL to develop supportive environmental infrastructure, such as safe traffic signal design. They believed this partnership would enable the government to provide structures to meet their precise community mobility needs. Jovita captured this during our conversation when she stated:

“[...] I think they should ask us exactly what we need instead of just putting up structures they feel like we need.”

As highlighted by the participants, a lack of public understanding and empathy towards the challenges faced by people with vision loss, including older adults with ARVL, can contribute to an environment that is not supportive or inclusive. When the general public is unaware of the mobility challenges faced by people who use white canes or how to interact with them appropriately, it can create discomfort, misunderstanding, and potential hazards in public spaces, making it more difficult for individuals with vision loss to navigate their communities. This barrier is rooted in the political

environment due to governments and policymakers not prioritizing, or investing in initiatives, to raise public awareness and educate people about the needs and experiences of individuals with vision loss. A lack of funding, resources, or political will to support public education campaigns can result in a limited understanding of the issues faced by this population, further perpetuating barriers to community mobility. For instance, when discussing recommendations to support her community mobility, Hope highlighted the need for traffic rules to be enforced and for the general public, including drivers, to be educated on the needs of people with vision loss:

“I can't think of any solution except if you have cops on the corners keeping people from speeding, not obeying the laws and going through red lights. I'm not sure people will listen, but there should be a constant bombardment of advertising about this on TV, radio, podcasts, and everything. Also, enforcing driver's education...”

5.7 Conclusion

The themes presented above illustrate how the environment plays an important role in supporting, as well as restricting, the community mobility of older adults living with ARVL. The subsequent chapter will conclude this study by discussing the findings within the context of existing research and providing recommendations for future research, policy, and practice.

Chapter 6: Discussion

In this final chapter, I begin by comparing the findings of the present study to the existing literature focused on the influence of the environment on the community mobility of older adults with age-related vision loss. The dominant themes are also investigated and interpreted in relation to the socio-ecological model, which was the guiding theoretical approach for this narrative study. Next, I discuss the strengths and limitations of this research as well as the potential implications of the research findings to inform future research directions, policy, and practice. Lastly, I return to my reflexivity statement to share how the research has shaped my beliefs and understandings related to the community mobility of older adults aging with vision loss.

6.1 Situating the research findings within the existing literature

The present study's findings will be described in relation to the distinct environmental categories that were deduced from the accounts of the participants. The discourse pertaining to the overarching themes shall be integrated within the framework of these environmental categories.

6.1.1 Physical environment

Within the category of the physical environment, three distinct themes were derived from the narratives provided by the study's participants. These themes included: (1) Moving from private vehicles to public transport, (2) Elements of the physical environment act more as barriers than facilitators to community mobility, and (3) The use of assistive devices and compensatory strategies to support community mobility. This

section shall provide a comprehensive discussion of the three themes that are embedded within this particular environmental category.

Moving from private vehicles to public transport. The present narrative study builds on previous research by going into detail about how older adults with ARVL shifted from driving their own cars to depending on alternative modes of transportation following their vision loss diagnosis. Albeit limited, some of the existing literature has discussed the topic of driving cessation and older adults with visual impairments (Adler and Rottunder, 2006; Freeman et al., 2005; Maliheh et al., 2023; Wood et al., 2022). However, previous research were not predominantly focused within an environmental context. This narrative study, therefore, brings to light the details of how older adults transition from driving their own vehicles to losing their driver's licenses and subsequently negotiating the challenges of having to depend on alternative means of transportation. The participants in this study, who all drove their own private vehicles before their vision loss diagnosis, shared how frustrated and angry they felt because of the loss of their independence. Similar to the findings of Laliberte Rudman et al. (2016), where participants in smaller cities faced unreliable and challenging transport systems, leaving them frustrated and restricting their community mobility as a result. The participants in this narrative study stated that driving in London is a necessity as other transit options were unreliable, and not being able to drive was a huge restriction to their community mobility. They described how they, in some instances, had to rely on family members to enable them to negotiate their community mobility, and in some other instances, shared how they had to depend on the help of friends and strangers while navigating their neighbourhoods.

Elements of the environmental physical infrastructure act more as barriers than facilitators to community mobility. In the present study, participants expounded upon how various facets of the physical environment served as barriers to their ability to move about freely. The barriers in question encompassed a range of factors, such as the limited availability of alternative modes of transportation subsequent to the loss of one's driver's licence, the presence of cracks, holes, and obstructions along pedestrian walkways, inadequately illuminated pathways, challenges in navigating intersections due to the inability to see traffic signals, and the absence of auditory cues in certain buses and bus stops. The study participants elaborated on the impact of infrastructural barriers on their overall approach to community mobility. The present study's results lend additional credence to the existing body of literature (Berger, 2012; Burton et al., 2018; Laliberte Rudman et al., 2016; McGrath et al., 2017; Weber & Wong, 2010) that is replete with accounts of physical environmental barriers shaping the community mobility experiences of older adults with age-related vision loss. For example, in alignment with the present study, Burton et al. (2018) conducted a study utilizing focus groups as their primary means of data collection to explore the barriers and facilitators to community mobility among older adults with vision loss. In their study, Burton et al. (2018) described how older adults with vision loss were faced with infrastructural barriers, such as walkways that were blocked with obstructions which forced the study participants to walk on the road and bus station signs that were difficult to read. In another example, Laliberte Rudman et al. (2016), in a grounded theory study that investigated how older adults negotiated social participation in their environments while living with vision loss, highlighted the challenges imposed by the physical environment such as an inability to

see the bus numbers when getting on and off the bus, which is consistent with the experiences of the participants in the present study. However, the present study utilized a narrative inquiry, in contrast to the methodologies used in these other studies and attempted to offer a more profound comprehension of the community mobility experiences of older adults with ARVL (Clandinin & Caine, 2013) which is one way in which the present study had added to the existing literature.

In contrast to the existing literature, this narrative study demonstrated that there were some elements of the physical environment that provided support to the community mobility of older adults with ARVL. For example, participants in this study explained that, despite the fact that their physical environments were filled with more barriers than supports to their community mobility, they did acknowledge some of the supports to their community mobility, which included the presence of tactile ground surface indicators (TGSI) and audio cues at some traffic signals in their neighbourhoods. This is in line with previous research (Burton et al., 2018; McGrath et al., 2017), whereby older adults highlighted environmental facilitators to their community mobility, such as the presence of handrails and the yellow-and-white patterns painted on the stairs.

The use of assistive devices and compensatory strategies to support community mobility. Participants in this narrative study discussed compensatory strategies that enabled them to navigate their environments more easily. This is in line with some existing studies (Burton et al., 2018; McGrath & Laliberte Rudman, 2013; McMullan & Butler, 2019; Natasi, 2018; Weber & Wong, 2010), where compensatory strategies employed by older adults with ARVL to support community mobility were highlighted. These strategies included relying on the white cane for navigational support,

getting help from family, friends, and low-vision organizations, enlisting the assistance of a sighted guide, relying on guide dogs, and utilizing electronic devices, such as smartphone apps, to assist with wayfinding. For example, participants in the present study acknowledged that the white cane supported their community mobility, however, they felt uncomfortable using it because it reinforced the idea that they were disabled and sometimes led to people feeling sorry for them. This finding is in agreement with previous studies (Fok et al., 2011; Fraser et al., 2019; Hersh, 2015; Horowitz et al., 2006; & Li et al., 2019), whereby the stigmatization caused by using the white cane by persons with vision loss were heavily discussed. One conversation, of particular note in this study, with regard to compensatory strategies, pertained to the facilitation of community mobility through the utilization of clothing, as described by one of the study's participants. The participant expounded that wearing high-contrast attire better facilitates their visual perception of the environment, consequently supporting their community mobility. The discourse on the utilization of clothing as a compensatory mechanism to facilitate the community mobility of older adults with ARVL appears to have not otherwise been discussed in existing ARVL literature.

Finally, this study has contributed to the existing body of research by emphasizing the required enhancements to the physical environment that are necessary to facilitate the community mobility of older adults with ARVL. In prior research (McMullan & Butler, 2019; McGrath & Corrado, 2019; McGrath et al., 2017), older adults with ARVL did not offer recommendations for how to alter the physical infrastructure to support community mobility; instead, the authors proposed these modifications themselves. However, the participants in this narrative study provided multiple detailed suggestions for improving

infrastructural support, and these recommendations include painting the curbs and pavement cuts bright yellow, ensuring that audio announcements were working effectively in all the buses and at all the bus stops, and ensuring that the sidewalks were adequately maintained and rid of all obstacles to minimize the risk of falls. These recommendations build upon the suggestions offered by authors of existing ARVL literature which have discussed the physical environment (Laliberte Rudman et al., 2016; McMullan & Butler, 2019; McGrath & Corrado, 2019; McGrath et al., 2017).

6.1.2 Social environment

Within the category of the social environment one salient theme was identified from the narratives of the participants which is discussed, in detail, below.

Social networks and their influence on the community mobility of older adults with ARVL. Previous research has demonstrated that friends and family are frequently the major sources of support for older adults with ARVL who face challenges navigating their communities after their vision loss diagnosis (Natasi, 2018; Weber & Wong, 2010). For instance, Weber & Wong (2010), in their qualitative exploratory study that investigated how older adults coped with vision loss, described how family and friends were the first line of support listed by the study participants in their self-reported responses. In another example, Natasi (2018) utilized a collective case study to investigate how older adults with visual impairments live their everyday lives. In her study, Natasi (2018) found that participants reported that consistently available support from family members was a major contributory factor to their well-being while navigating everyday life as older adults with ARVL. Consistent with prior research, this

study's participants recounted their encounters with social support from friends and family members. The majority of participants in this current narrative study reported that their friends and family were consistently available to assist them with navigating the community. However, this study is distinct from previous research because it presented support from family and friends in the context of community mobility. The present narrative inquiry illustrates the manner in which the participants highlighted the willingness of their social network, comprising family and friends, to provide support for their community mobility by offering their availability to transport them to their desired destinations. Apart from the methodological distinction, unlike previous ARVL studies (Laliberte Rudman et al, 2010; Natasi, 2018; Weber & Wong, 2010), this present narrative study provides a comprehensive account of how strangers aided in supporting the community mobility of older adults with ARVL. The study's participants recounted diverse instances in which strangers aided them in navigating unfamiliar environments, including providing directions and facilitating crossing busy intersections.

Formal networks, comprising government agencies, non-profit organizations, and other institutions, are essential in aiding the community mobility of older adults with vision loss. They offer orientation and mobility training, assistive technologies, and support services to help facilitate community mobility for older adults with ARVL (Kang et al., 2022). For example, Kang et al. (2022) conducted a narrative inquiry to investigate how social networks shape the occupational engagement of older adults with ARVL. In their study, formal networks were found to offer instrumental and informational support to older adults with ARVL. Consistent with the results from Kang et al. (2022), participants in the present study reported receiving assistance from healthcare providers

and organizations, including training in orientation and mobility, provision of mobility aids such as white canes and vision loss identifiers, and guidance from low vision specialists on navigating the environment as an older adult with vision loss.

6.1.3 Cultural environment

Within the category of the cultural environment one salient theme was identified from the narratives of the participants which is discussed, in detail, below.

Ableist perceptions of older adults with ARVL & its impact on community mobility. The existing literature on ARVL and its impact on the community mobility of older adults lacks an extensive discussion on the influence of the cultural environment, with the exception of the generic qualitative research conducted by Burton et al. (2018), the grounded theory study by Laliberte Rudman et al. (2016), and the critical ethnographic study by McGrath et al., (2017) which all address cultural environmental features. For example, in the critical ethnographic study by McGrath et al. (2017), the participants expressed, however subtly, their sentiments of alienation in a world that is largely comprised of people who are able-bodied. Building on these prior research studies, the current narrative study has successfully brought to the foreground the prejudiced belief that older adults with vision loss are largely unproductive and encounter unfavourable stereotypes and stigmatization, such as being treated as if they are unintelligent when navigating their environment. This narrative study's participants elucidated occurrences in which they perceived themselves as a source of inconvenience to others due to the treatment they received from members of the public, leading to their disengagement from community-based events, consequently impeding their social

integration and limiting their mobility within the community. The emotions articulated by the current study's participants were rooted in the ageist and ableist presumption that older adults are expected to function as productive members of society, and if they are unable to make economic contributions, they experience a feeling of being a liability. Previous ARVL literature, such as the scoping review conducted by McGrath & Laliberte Rudman (2013), highlighted how older adults faced awkward situations in their social environments that influenced their decision to stay at home but did not fully highlight the impact of these ageist and ableist ideologies on the community mobility of older adults with ARVL. In another qualitative exploratory study by Weber & Wong (2010), the attitudes of others was mentioned as one of the barriers to coping with vision loss as an older adult, however, they did not go into specific detail regarding how this shaped the community mobility experiences of older adults with ARVL. Thus, the present narrative study builds on existing literature by illuminating these prejudicial suppositions related to navigating the environment as an older adult living with vision loss.

6.1.4 Political environment

Within the category of the political environment one salient theme was identified from the narratives of the participants which is discussed, in detail, below.

Community mobility barriers stemming from political factors. There are no known studies within the existing ARVL literature which have contextualized the consequences of rescinding the driving privileges of older adults with vision loss within a political environmental context. The present narrative inquiry will make a worthwhile contribution to the existing ARVL body of literature by situating the loss of one's driver's

licences, coupled with inadequate alternative transportation options, as a manifestation of how the political environment shapes the community mobility experiences of older adults with ARVL. The present study's participants narrated their arduous experiences in grappling with the challenges associated with accessing alternative transportation modes subsequent to the loss of their driver's licence, due to poor transportation planning policies. Although the participants stated that they utilized taxis as their primary mode of transportation following the loss of their driver's license, due to the convenience, it was at a considerable cost and was often selected as the primary mode of alternative transportation due to the inaccessibility and unreliability of other, more cost-effective, transportation options, such as the bus.

The existing ARVL literature has briefly addressed the political aspect of infrastructure within the environment, as evidenced by studies conducted by Burton et al. (2018), Laliberte Rudman et al. (2016), McGrath et al. (2017), and McGrath & Laliberte Rudman (2013). For example, a critical ethnographic study conducted by McGrath et al. (2017) aimed to uncover the ways in which environmental barriers created disability for older adults with age-related vision loss (ARVL). In the study, the authors proffered a number of recommendations to enhance the environment, including urging researchers, healthcare providers, and other stakeholders to jointly devise comprehensive social policies that prioritize the amelioration of physical inaccessibility for older adults with ARVL in the built environment. Consistent with existing research and leveraging antecedent findings, the current narrative study has additionally ascertained that urban planning policies demonstrate an inadequate level of consideration for the needs of older adults with age-related vision loss. Specifically, the absence of accessible physical

infrastructure design features, such as auditory cues at bus stops and traffic signals or tactile walking surface indicators, can engender difficulties in navigating public spaces. The constraints that impede the ease of navigation for older adults with vision loss are entrenched in the policies of urban planning. These constraints may have the effect of limiting community mobility among older adults aging with vision loss and induce feelings of social isolation. All participants recounted instances of malfunctioning auditory signals at traffic intersections, as well as bus stops that lacked auditory announcements. The presence of these inefficiencies had a detrimental effect on their community mobility, as they expressed a preference for remaining at home rather than confronting the difficulties associated with navigating their environments in such conditions.

The participants in the current study also highlighted a lack of collaboration between the government and older adults living with ARVL as it relates to urban planning, and bemoaned how this posed a barrier to their community mobility. Without the representation and involvement of older adults with vision loss in key decision-making roles as it relates to urban planning, the specific needs and challenges faced by this population may be overlooked in public infrastructure and policy decisions. Participants in this present narrative study explained that physical infrastructure in the environment was being constructed without seeking recommendations from people with the rich lived experience of vision loss. They explained that inclusivity meant that they should be consulted before structures were built to capture the exact needs of older adults with ARVL. Their assertion is in agreement with the findings of Burton et al.'s (2018) qualitative study that utilized focus groups, wherein a participant expressed

dissatisfaction regarding the construction of a recently erected bus station intended for the visually impaired, citing the lack of involvement of individuals with vision loss in the planning process. Consequently, the individuals encountered difficulties in boarding the bus unassisted. Active engagement with older adults with ARVL can ensure that their experiences inform infrastructure design and policies, promoting more inclusive and accessible communities (Burton, et al., 2018).

Finally, the current study participants described how the political environment can also shape public awareness and understanding of the challenges faced by older adults with vision loss. They highlighted that a lack of governmental initiatives for public education can perpetuate misconceptions, stigma, and ageist assumptions, further exacerbating barriers to community mobility. This is in agreement with McGrath et al. (2017)'s critical ethnographic study which explicitly stated that understanding the impact of environmental barriers on the engagement of older adults with ARVL and recognizing the significance of vision-friendly environments in promoting personal and communal welfare, can only be achieved through education.

6.2 Relating the study findings to the socio-ecological model

This current narrative study has taken up the socio-ecological model as a theoretical framework to comprehend the influence of the environment on the community mobility of older adults with ARVL. The current study will make a noteworthy theoretical contribution by contextualizing the results within this guiding theoretical framework because there seems to be a lack of previous ARVL literature that have utilized this framework for their study. This narrative study's findings illustrate how the environment influences the community mobility of older adults living with ARVL. The participants in

this study described how the different levels of the environment influenced their community mobility, ranging from the physical, social, cultural, and political environmental aspects. This is in line with Ma et al. (2017)'s systematic review which described the socio-ecological model as an interplay between an individual and their environment and how an individual's behaviour is influenced on numerous levels by certain factors, including environmental and community factors.

The socio-ecological model is further described in a review by Kilanowski (2017), such that an individual is at the center of nesting circles that comprise the systems that influence their interactions with society. Aligned with this, the present study elucidates the influence of varying environmental strata on the community mobility encounters of older adults with age-related vision loss. The multifaceted environment, encompassing the physical, social, cultural, and political domains, has exerted a varied influence on the mobility of older adults with vision loss within their respective communities.

Furthermore, Leung et al. (2021) employed the socio-ecological framework as a theoretical lens to contextualize their investigation into how older adults perceive their walking experiences in their environments. The authors employed a thematic analysis to deduce themes at different levels of the environment, including physical and social. Some of their themes also stemmed from the individual level. In contradistinction to Leung et al.'s (2021) study, the present narrative study focused on the environmental factors that influenced the community mobility experiences of not just older adults but those living with ARVL specifically. The present narrative study also espoused a comprehensive perspective that prioritized the environment, as opposed to the individualistic orientation of Leung et al.'s (2021) study.

The relationship between the different levels of the socio-ecological model is complex and multi-dimensional, especially when studying the community mobility experiences of older adults with ARVL. The physical environment frequently mirrors the political environment. Policies and regulations govern the design of buildings, the operation of public transportation, and the level of pedestrian-friendliness in a community. The cultural environment and social environment have a reciprocal relationship. Cultural norms can impact the level of support and understanding within an individual's social network. In contrast, the attitudes and behaviours exhibited within a social network have the potential to influence broader cultural transformations. The cultural and political environments can mutually influence each other. Cultural norms that prioritize accessibility and inclusion can foster advocacy for improved policies. However, robust policies have the potential to gradually alter cultural norms. This study focused on highlighting these relationships based on the narrative accounts provided by the participants.

6.3 Strengths and limitations of this study

A notable merit of this study lies in its methodological consistency, which is rooted in my paradigmatic stance and research question: "How do older adults with age-related vision loss (ARVL) narrate the role of the environment in supporting as well as limiting their community mobility?" From a research perspective, it can be posited that an individual's narrative of their lived experiences is constructed through a process of introspection, whereby they reflect upon the various encounters they have had with the diverse elements of their environment. To co-construct their subjective realities in accordance with my ontological and epistemological convictions, I conducted semi-

structured narrative interviews with participants. The method I used for conducting the interviews allowed the participants to actively engage in an in-depth meaning-making process regarding their embodied experiences with ARVL and community mobility. It also gave them enough time and emotional space to take the lead in storytelling. By asking the participants for input on my interpretation of their story after reconstructing their narrative accounts, I also practiced member reflection with them. The power disparity between myself (the researcher) and the participants was reduced as a result of this approach, which promoted the participants' authority and privilege over the knowledge claims made during the research process.

Another strength of my research was the diversity of my participant sample from a demographic perspective. During participant recruitment, one of the participants heard about the study through a friend, and the other three saw the recruitment flyer at eye clinics and decided to participate in the research. This was a strength because the participants were from different backgrounds, and so their experiences of community mobility varied. In addition, participants' ARVL diagnoses varied, as did their gender, age, race, ethnicity, marital status, socioeconomic situation, and levels of education. The heterogeneity in my participants' demographic backgrounds allowed for a more comprehensive and broadened understanding of older adults' distinct experiences with ARVL because my research findings were heavily context-driven such that participants' experiences varied and were shaped by the surroundings and people they interacted with, as well as their own demographic attributes.

Conversely, one of the limitations of my research was that, as a result of the aftermath of the Covid-19 pandemic, participants were more comfortable with

conducting the interviews over the phone rather than in person. Because I could not see the participants' faces and had to make do with information communicated through their vocal tones and word choices, it was challenging to determine their moods during pauses or silences in a conversation. Despite the aforementioned communication barriers, all participants discussed a wide range of subjects and went into great detail about their personal experiences, providing rich information about how the environment supports, as well as limits, their experiences of community mobility. However, it is plausible that in-person interviews would have fostered greater rapport-building and more natural, spontaneous communication with participants.

6.4 Future research directions and implications

6.4.1 Future research directions

The present study delved into the narratives of four older adults with age-related vision loss in relation to the extent to which their environment facilitated or restricted their community mobility experiences. Upon conducting a thorough review of the existing literature on age-related vision loss, it was observed that the impact of the political environment on the community mobility experiences of older adults with ARVL had not been given due attention as the sole, or primary, focus of any existing study. The political environment has, however, been briefly mentioned in relation to recommendations aimed at enhancing the vision friendliness of environmental spaces by advocating for political change and increased funding for programs that support community mobility (Burton et al., 2018; Laliberte Rudman et al., 2016; McGrath et al., 2017; McGrath & Laliberte Rudman, 2013). The present study successfully highlighted

the numerous ways in which the political environment constituted a barrier to the community mobility of older adults ARVL. However, it is imperative that future qualitative research endeavours to concentrate on illustrating the impact of governmental regulations and policies, such as the revocation of driver's licenses, on the community mobility experiences of older adults living with vision loss. The proposition mentioned above would have a significant impact on the development of advocacy efforts that ought to be implemented at the institutional levels, with the aim of mitigating the issue of the unavailability of transport options for older adults with ARVL (McMullan & Butler 2019). In light of the ongoing global recovery from the pandemic, and the gradual adjustment of individuals to post-pandemic life, I would also suggest that future qualitative research delve into the possible effects of the Covid-19 pandemic on the community mobility experiences of older adults with age-related vision loss.

In addition, existing research on age-related vision loss lacks specificity with respect to the efficacy of sighted guide and technological aids in facilitating community mobility among older adults affected by ARVL. This present study has highlighted the experiences of some of the participants who used sighted guide as well as technological aids like software apps and GPS tracking devices. Nevertheless, additional quantitative inquiry pertaining to this subject matter would be helpful in order to establish a greater understanding of the effectiveness of sighted guide and technological devices employed by older adults with ARVL to facilitate their community mobility. Furthermore, I would suggest that future quantitative research focus on the correlation of various demographic factors, including but not limited to gender, race, and socioeconomic status, with the community mobility patterns of older adults with ARVL. This is because there appears to

be a lack of attention to the intersectionality of these factors and how they may shape the community mobility experiences of older adults with ARVL.

6.4.2. Recommendations for programs and policies

This study has the potential to make a valuable contribution to vision care services, programs, and policies by informing policy development, enhancing service delivery, raising awareness, promoting collaboration with older adults with ARVL, and encouraging the development of both age and vision-friendly communities. The insights gained from this research can help create more inclusive and supportive environments for older adults with age-related vision loss, ultimately improving their community mobility. This study demonstrated that the features of the political environment, such as transportation policies, urban planning regulations, and the availability of government-funded services or programs, served as barriers to the community mobility of older adults with ARVL. The following are recommendations informed by the findings of this study:

1. Provision of accessible alternative transportation options after the loss of a driver's license

In this study, all the participants had their driver's licenses suspended after their vision loss diagnosis, without the availability of reliable and cost-effective alternative transportation options. Subsequently, all the study participants discussed the challenges they faced navigating their environment using the available transportation options, which included relying on family and friends, paratransit, bus, and taxis. The participants emphasized that the aforementioned modes of transportation were not always easily available or accessible and were often cost-prohibitive. Policymakers should work towards improving the

accessibility of public transportation systems by ensuring that all the bus stops have functional audio announcements, taxi services should include assistance services wherein the passenger is guided to/from the vehicle and ensuring that door-to-door transport options are affordable for older adults with ARVL (Laliberte Rudman et al., 2016; McGrath & Laliberte Rudman, 2013).

2. Promote inclusive urban planning

Urban planning regulations should prioritize the creation of age and vision-friendly communities. This includes designing pedestrian-friendly infrastructure, accessible public spaces, and ensuring safe and navigable environments for older adults with vision loss (AODA, 2019). For example, in this study, the participants expressed concerns about non-functional audio signals at traffic signs, uneven sidewalks, obstacles in the path on sidewalks, and poor lighting on the walkways in the evening. The promotion of inclusive planning is of utmost importance to facilitate the ease of navigation for older adults with age-related vision loss within their environments. This will support their independence and increase their engagement in outdoor activities that are essential for their well-being (AODA, 2019).

3. Encourage inter-agency and user collaboration

Policymakers, service providers, and organizations working with older adults with ARVL should collaborate with older adults aging with vision loss to develop comprehensive and effective services, programs, and policies that address the challenges faced by this population (McGrath et al., 2017). Collaboration can lead to more efficient resource allocation and better support for older adults with

vision loss. For instance, the study participants stated that they felt excluded by the government in decisions concerning public infrastructure. As such, engaging older adults with ARVL in the policy-making process can ensure that their unique needs and perspectives are considered in the development of transportation policies, urban planning regulations, and government-funded programs and services. The involvement of older adults with age-related vision loss in the decision-making process can be facilitated by encouraging communities to nominate older adults with ARVL who will sit on committees where community mobility discussions are held. These representatives could participate in policy-making and planning meetings, articulating the needs of their demographic and providing clear guidance on how to address infrastructure barriers in the community.

4. Raise public awareness and promote advocacy

Efforts should be made to raise awareness among various stakeholders, including government agencies, non-profit organizations, and the general public, about the experiences and needs of older adults with ARVL (McGrath et al., 2017).

Increased awareness can encourage the development of more comprehensive and effective policies and services (McGrath et al., 2017). The study participants highlighted the need for people to understand how to relate to older adults with ARVL, specifically those who use a white cane, and they also expressed significant concern about impatient drivers who live in London, Ontario.

Achieving this objective may be facilitated through the implementation of educational initiatives that underscore the challenges faced by older adults with

age-related vision loss. The dissemination of these programmes ought to be executed across both news and social media platforms, with a focus on reaching diverse demographic groups, including but not limited to variances in age and race. Increasing awareness of the needs of persons with vision loss will be beneficial as it would enable people to understand the challenges that older adults with ARVL face when navigating their environments.

6.5 A return to reflexivity

During the course of writing this thesis, I experienced a significant negative event that pointed me towards practicing reflexivity in order to ensure the sincerity of the study. I lost my father in September of 2022 when I had just begun data collection. It shook me up so badly, and I faced a major mental health crisis. However, I knew that I couldn't afford to take time off during my studies due to the peculiarities of my stay in Canada as an international student. While grieving, I had to conduct interviews with participants who were within the same age bracket as my late father, and this made the process even more difficult for me. After some of the interviews, I wept uncontrollably and wondered why my dad had to go at a point when I needed him to see me succeed. However, throughout this process, I documented my feelings in my reflexive journal. Upon completion of the interviews, I would engage in a self-debrief in which I recorded any feelings I had regarding my father. This helped me contextualize my own bereavement within the data collection process. This permitted me to mourn his passing as healthily as possible, given the circumstances. Reflexivity afforded me the space to do this effectively and ensured that I could continue to produce rigorous and significant research data.

In addition, during the initial phase of this study, I stated the pre-existing assumptions that I held regarding older adults with ARVL. One of the assumptions was that older adults with ARVL are prone to relying on their carers to facilitate their community mobility. The present study reveals a discrepancy with my assumption, as it reveals that the participants displayed a proclivity towards independence and demonstrated a certain level of unease when it came to receiving assistance from their family and friends. I was somewhat surprised to see that older adults with ARVL would rather find alternative means of navigating their neighbourhoods than rely on the help of friends and family. This changed my perception of older adults with ARVL.

6.6 Conclusion

This research investigated how the environment has shaped the community mobility experiences of older adults with ARVL. I organized the six themes generated during the thematic analysis within the four categories of the environment, including physical, social, cultural and political. By highlighting some of the barriers to community mobility experienced by older adults aging with vision loss, the study findings may help to shape the approaches that government agencies and organizations employ in the future when addressing the community mobility needs of older adults with ARVL. The study findings will also inform future research focused on exploring the environmental barriers and facilitators to the community mobility of older adults with ARVL.

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Appendices

APPENDIX I: Study Flyer

PARTICIPANTS NEEDED FOR A RESEARCH STUDY

Who: To participate in this study, individuals must meet the following criteria: 1) older adults aged 60+; 2) ARVL diagnosis (including macular degeneration, glaucoma, and/or diabetic retinopathy); 3) able to communicate in English; 4) currently reside in London, Ontario).

What: We are looking for volunteers to participate in a study to understand the role of the environment in supporting as well as restricting community mobility in older adults with age-related vision loss.

When: You will be asked to participate in three sessions (approximately 1-2 hours each) over a period of 4 months. The three sessions will take place on a date and time that is convenient for you.

Where: Interviews will be conducted in person [the researcher will substitute ‘in person’ for ‘via Zoom’ or ‘via telephone calls’ if social distancing requirements, as a result of COVID-19, are still in effect at the time of data collection] at a location that is convenient for you, including but not limited to your home, your local community, or the university where the researcher works.

Note: Your choice to participate in this study will not be revealed to your care organization and will not impact your relationship with the care organization. If you are

interested in participating in this study or if you would like more information, please contact:

Co-investigator, Claire Ibe

Principal Investigator, Colleen McGrath, Ph.D., OT Reg. (Ont.)

APPENDIX II: Telephone Script

Research Project Title: “Take a walk in my shoes”: A narrative account of the experiences of community mobility among older adults living with age-related vision loss

This script will only be used when interested participants call the research team to learn more information about the study. They will have heard about the study from the CNIB, CCB, CAOT, and/or through a recruitment flyer or email.

This telephone script will be used by co-investigator, Claire Ibe, or the principal investigator, Dr. Colleen McGrath, when a participant calls the researcher to inquire about participating in the study.

Hello, this is Dr. Colleen McGrath’s research lab. This is [name of the Research Assistant/Primary Investigator] speaking; how may I help you?

*If participant expresses interest in participating in the study

Thank you for your interest in this study. Before we move on to discussing details regarding the study, I would like to ask you a few questions to confirm your eligibility to participate. You can answer with a yes/no response.

1. Are you 60 years of age or older?
2. Do you self-identify as having age-related vision loss (which includes macular degeneration, glaucoma, and/or diabetic retinopathy)?
3. Are you comfortable participating in sessions in English?

4. Do you live in London, Ontario?

5. Are you willing to share your story about the role of the environment in supporting as well as restricting your community mobility since you were diagnosed with age-related vision loss?

*If participant answers yes to all questions, will continue with sharing details regarding the study

*If not, I am sorry, you do not meet the eligibility criteria to participate in this study, thank you for your time and good-bye

The study is being conducted by Claire Ibe, who is a Master's student in the Health & Rehabilitation Sciences (Occupational Science) program at Western University. This study will aim to understand how the environment supports as well as restricts community mobility of older adults living with age-related vision loss (ARVL). The study will involve three interviews that will each be 1-2 hours long, depending on how much you want to share. These interviews will be conducted in person [the researcher will substitute 'in person' for 'via Zoom' if social distancing requirements, as a result of COVID 19, are still in effect at the time of data collection] at a location, date, and time of your choosing. The first meeting, which is a narrative interview will address topics related to your experiences with community mobility and the role of the environment in supporting as well as limiting your community mobility. The second session will be a semi-structured interview, and the questions during this session will aim to build and expand upon the ideas and responses you shared during the first interview. Before the third meeting, the researcher will send you a draft-rendering of your story either via email

or a physical copy mailed to you (depending on your preference). In the third and final interview, you will have an opportunity to reflect and share your perceptions about the draft-narrative account, as well as clarify and elaborate on information that you shared with the researcher during the first two sessions.

Would you be interested in hearing more about this study?

*If no, thank you for your time, good-bye.

*If yes,

I am now going to read to you the letter of information over the phone [letter of information will be read clearly to the participant over the phone and participants will receive a copy via e/mail for their reference]

Do you have any questions? [Any questions they may have will be answered at this time]

Do you agree to participate in this study?

*If no, thank you for your time and good-bye.

*If yes, will continue with the study by setting a date and time for the first interview

APPENDIX III: Email Script

Research Project Title: “Take a walk in my shoes”: A narrative account of the experiences of community mobility among older adults with age-related vision loss (ARVL)

Hello,

My name is Claire Ibe. I am a Master’s student in the Health & Rehabilitation Sciences (Occupational Science) program at Western University. Thank you for your interest in the research study that I am conducting, along with my supervisor, Dr. Colleen McGrath, and my two advisory committee members, Dr. Carri Hand and Dr. Debbie Laliberte-Rudman.

In order to participate in this study, you must be: 1) 60 years of age or older; 2) self-identify as having age-related vision loss (which includes macular degeneration, glaucoma, and/or diabetic retinopathy); 3) be comfortable participating in sessions in English; 4) live in London, Ontario and; 5) be willing to share your story about the role the environment has played in supporting as well as limiting your community mobility.

The study will involve three interviews that will each be 1-2 hours long, depending on how much you want to share. These interviews will be conducted in person [the researcher will substitute ‘in person’ for ‘via Zoom’ if social distancing requirements, as a result of COVID 19, are still in effect at the time of data collection] at a location, date, and time of your choosing. The first meeting, which is a narrative interview will address topics related to your experiences with community mobility and the role of the environment in supporting as well as restricting your community mobility.

The second session will be a semi-structured interview, and the questions during this session will aim to build and expand upon the ideas and responses you shared during the first interview. Before the third meeting, the researcher will send you a draft-rendering of your story either via email or a physical copy mailed to you (depending on your preference). In the third and final interview, you will have an opportunity to reflect and share your perceptions about the draft-narrative account, as well as clarify and elaborate on information that you shared with the researcher during the first two sessions.

A letter of information about this study has been attached to this email. If you are willing to participate in this study, or have more questions, please contact the researcher at the contact information provided below.

Co-investigator, Claire Ibe

Principle Investigator , Colleen McGrath, PhD, OT Reg. (Ont.)

Thank you,

Claire Ibe

APPENDIX IV: Letter of Information & Consent

Co-investigator

Claire Ibe

Principal Investigator

Colleen McGrath, PhD, OT Reg. (Ont.)

LETTER OF INFORMATION

Project Title: “Take a walk in my shoes”: A narrative account of the experiences of community mobility among older adults living with age-related vision loss

1. Invitation to Participate

You are being invited to participate in a project aimed at studying the role of the environment in supporting as well as restricting the community mobility of older adults after being diagnosed with age-related vision loss (ARVL).

To participate in this study, you need to: (1) be 60 years of age or older; (2) have a diagnosis of ARVL (including macular degeneration, glaucoma, and/or diabetic retinopathy); (3) be able to communicate in English; (4) reside in London, Ontario and (5) be willing to share your story about your experiences of community mobility after being diagnosed with age-related vision loss.

Up to five older adults will be invited to participate in this study. It is important for you to understand what participation in this study will involve. Please take the time to read

the following information carefully and if there is anything that is not clear or if you would like more information, please contact the researcher using the details provided.

Thank you for reading this letter.

2. Why is this study being done?

In Canada, the population is aging and the number of older adults with low vision loss is expected to increase significantly over the coming years. Previous research has identified an association between the presence of an ARVL condition among older adults and decreased community mobility. Community mobility refers to the use of transportation including walking, bicycling, taxis, wheelchairs, scooters, and cabs, to get around the community. It can play an essential role in supporting activity engagement, elevating a sense of life satisfaction, and improving overall physical as well as cognitive health and well-being. Existing studies suggest that an older adult's community mobility is restricted by age-related vision loss, however, there is limited research focusing on the role the environment plays in supporting and/or restricting community mobility in older adults with age-related vision loss. Therefore, the goal of this project is to better understand how older adults with ARVL tell their story of community mobility, and the role of the environment plays.

3. How long will you be in this study?

If you choose to take part in this study, you will be asked to participate in three interview sessions (approximately 1-2 hours each) over a period of 4 months. There will be a 2-4 week period between each interview.

Each of these meetings will be conducted in person [the researcher will substitute ‘in person’ for ‘via Zoom’ or ‘via telephone call’ if social distancing requirements, as a result of COVID 19, are still in effect at the time of data collection] at a date, time, and location that is convenient for you.

4. What are the study procedures?

You will meet with the researcher three separate times. If you prefer an in-person interview, all three interview sessions will be audio recorded. The digital voice recorder will be turned on at the beginning of each interview and turned off at the end of each interview. However, if you prefer a virtual interview, Zoom’s record feature will be used, which collects both audio and video recordings.

During the first session, you will participate in a narrative interview. During this session, you will be asked a single question by the researcher, related to your experience with community mobility. After you have finished telling your story, the researcher will prompt you to provide further detail or information on specific topics raised by you. This session will be audio-recorded. During the second session, you will participate in a semi-structured interview. In this interview, you will be asked a set of pre-determined, semi-structured, and in-depth questions that are based on the ideas and responses you generated from the first interview. This session will be audio recorded. Before the third meeting, participants will be given a copy of the narrative that the researcher has written based on the experiences you have shared during the first two interviews. In the third and final interview, the researcher will ask you to reflect and share your perceptions of the

narrative. You will be invited to provide feedback and make any changes you would like to see. All sessions will take place on a date and time that is convenient for you.

5. What are the risks and harms of participating in this study?

There are no known risks associated with taking part in this research. Occasionally some people experience discomfort when they talk about health issues. You are free to choose what you will and will not discuss. This research does require you to commit time. All sessions will be scheduled based on participants' convenience, and you can request to stop a session if you experience any discomfort or fatigue. Participants will not be compensated for participating in this study.

All interview sessions will be scheduled based on your convenience, and you can request to shorten, reschedule, or stop a session if you experience any discomfort or fatigue. You will also be permitted to withdraw from the study for any reason and at any time. You will also be free to choose what you will and will not discuss. The research team is aware of low vision and mental health resources available in the London community and will provide those resources to you in a one-page document at the beginning of the first interview.

6. What are the benefits of participating in this study?

You may not directly benefit from participating in this study; however, your views may help influence the services, programs, and policies that are put in place for supporting the community mobility of older adults with ARVL.

7. Can participants choose to leave the study?

Your participation in this study is voluntary. You may decide not to be in this study. Even if you consent to participate you have the right to not answer individual questions or to withdraw from the study at any time. If you choose not to participate or to leave the study, at any time, it will have no effect on your care. You do not waive any legal right by consenting to this study.

Information collected prior to withdrawal will be kept, unless you ask to have it removed from the study. If you wish to have your information removed, please let the researcher know. Your data will not be able to be withdrawn from the study after it has been published.

8. How will participants' information be kept confidential?

Representatives of the University of Western Ontario Non-Medical Research Ethics Board may require access to your study-related records for monitoring purposes.

All three interview sessions will be audio-recorded. In addition, the researcher will take observation notes during each interview. All identifying information, such as your name, names of family and friends, and addresses, will be removed from these notes. What you say will be typed out by the researcher. The only people who will listen to the recording will be members of the research team. The only people who will read the interview transcripts will be the research team.

To protect your identity, only an identification number will be used to identify recordings, notes, transcripts, and interviews. Pseudonyms, of your choice, will be used

to replace your name and any names of family or friends provided in the interview transcripts. Quotes collected during the interview sessions will be included in publications from this study. You are free to request that parts of the recording be erased, either during or after the sessions. A list linking your study number with your name will be kept by the researcher in a secure place, separate from your study file. The consent form, notes and recordings will be locked in a secure place at the University of Western Ontario [hard copies of data with identifying information will temporarily be stored in a locked fireproof box at researcher's home if the researcher is not permitted on Western University campus at the time of data collection as a result of COVID 19 social distancing requirements]. All information transferred into typed format and digital files will be password protected. All information will be erased after 7 years.

A master list will track self-identifiable markers that are not essential to the core structure and interpretation of data, including but not limited to: the names of participants, specific locations/address, age, and gender. A master list will be kept by the study researcher in a locked cabinet separate from the transcripts, written notes, and audio files. The master list, and all data with identifying information (i.e. descriptive data, and any non-cleaned audio files and transcripts) will be stored in a locked filing cabinet in a locked office at Western University.

In a case where Zoom is your preferred choice for completing the interview sessions, you can be assured that Zoom does not use meeting, webinar, and/or messaging content (specifically audio, video, files, and messages), for any marketing, promotions, or third-party advertising purposes.

Study-related records (identifiable or de-identified) will be collected and electronically stored on a secure server for approved research team members to access.

While we do our best to protect your information, there is no guarantee that we will be able to do so. If you choose to use Zoom to complete your interviews, you should be made aware that teleconferencing/ videoconferencing technology has some privacy and security risks. It is possible that information could be intercepted by unauthorized people (hacked) or otherwise shared by accident. This risk can't be completely eliminated.

If data is collected during the project, which may be required to report by law, we have a duty to report.

9. Whom do participants contact for questions?

You will be given a copy of this letter of information and consent form once it has been signed. If you have any questions or want any additional information, you may contact Claire Ibe at or by telephone at If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics, email:

This letter is yours to keep for future reference.

APPENDIX V: Verbal Consent

Project Title: “Take a walk in my shoes”: A narrative account of the experiences of community mobility among older adults living with age-related vision loss (ARVL)

Verbal consent will be documented by the researcher, by checking the appropriate boxes on behalf of the participant.

Do you confirm that the Letter of Information has been read to you and have had all questions answered to your satisfaction?

YES ---- NO----

Do you agree to participate in this research?

YES---- NO-----

Do you agree to be audio-recorded?

YES---- NO----

Do you agree to be video recorded when using Zoom software in this research?

YES---- NO----

Do you consent to the use of unidentified quotes obtained during the study in the dissemination of this research?

YES----NO----

Do you agree to be contacted for future research studies?

YES----NO-----

Do you wish to involve a family member or close friend to act in the witness's role during this consent process to confirm that you have been adequately informed of the study prior to providing consent?

YES---- NO-----

The consent form was read to the participant. The person signing below attests that the study as set out in this form was accurately explained to the participant, and they have any questions answered.

YES ----NO----

Print Name of Researcher Obtaining Consent

Signature _____

Date (DD-MMM-YYYY)

Print Name of Informal Witness

Signature _____

Indicate the Relationship of the Informal Witness to the Participant

Date (DD-MMM-YYYY)

Co-investigator, Claire Ibe

Principle Investigator, Colleen McGrath, Ph.D., OT Reg. (Ont.)

APPENDIX VI: Written Consent

Project Title: “Take a walk in my shoes”: A narrative account of the experiences of community mobility among older adults living with age-related vision loss (ARVL)

I confirm that I have read the Letter of Information and have had all questions answered to my satisfaction.

YES ----- NO ----

I agree to participate in this research

YES ----- NO -----

I agree to be audio-recorded in this research

YES ----- NO -----

I agree to be video-recorded if using Zoom software in this research

YES----- NO-----

I consent to the use of unidentifiable quotes, titles, and names obtained during the study in the publication of this research

YES---- NO -----

I consent to the use of identifiable quotes, titles, and names in the publication of this study

YES---- NO----

I agree to be contacted for future research studies

YES---- NO-----

Print Name of Participant

Signature _____

Date (DD-MMM-YYYY) -----

My signature means that I have explained the study to the participant named above and I have answered all questions

Print Name of Researcher -----

Signature -----

Date (DD-MM-YYYY) -----

Co-investigator, Claire Ibe

Principle Investigator, Colleen McGrath, PhD, OT Reg. (Ont.)

APPENDIX VII: Interview Guidelines

First Interview

Thank you for participating in this research, which will aim to understand the role of the environment in supporting as well as limiting the community mobility of older adults with age-related vision loss (ARVL). In this interview, I would like to hear your story about your community mobility since your diagnosis with vision loss, and learn about the role the environment has played in supporting or limiting your community mobility. You can tell me your story in any way you like, and in any order. Once you are done telling your story, I will ask you some questions, to learn more about certain topics. Before we start this interview, are there any questions you would like to ask me? [Respond to all participant questions].

Question: Can you tell me the story about your community mobility experiences since you were diagnosed with age-related vision loss?

After the participants have finished narrating their story, the researcher will prompt the participant to provide further detail or information on specific topics by asking questions such as:

- Can you further explain the difficulties you faced crossing the ABC intersection?

At the end of the session, the researcher will ask the participants to answer the Demographic Questionnaire.

Second Interview: Hope

1. You mentioned that you used a white identification cane in the last session. So, can you tell me more about how you felt using it outside?
2. You also mentioned that your friends got some form of training from CNIB. Can you elaborate more on the training? Is it the sighted guide training?
3. What has it been like since your friends were provided with the training?
4. You also mentioned how you found the curbs and the lines in the pavements intimidating when you were out. I'll like to get more detail on how you were able to manage these environmental challenges despite how intimidating you found them.
5. Okay, so you don't go out at all on your own without somebody's help?
6. Okay. Why wouldn't you walk in the parking lot yourself?
7. So, can you tell me more about how you feel about receiving rides from people?
8. Do you ever use any other forms of public transit?
9. And why is that? Is there any reason for not using any other form of public transit?
10. So, is that a major challenge of using the paratransit option?
11. What about using the public bus? Do you ever consider it an option?
12. Okay. You also mentioned that you faced challenges shopping for groceries; can you give me more details on the challenges you faced in the grocery shop?

13. Can you tell me about a time you tried to cross a busy corner and found it intimidating? I would like to know what you found intimidating about it.
14. When you go out with someone, how is the person of help to you, and what support do they provide you?
15. Do you have any strategies you've adopted to enable you to get around outside your home, just like you keep things in a particular location at home to enable you to get to them easily? Does this strategy apply only to inside your home?
16. You also mentioned that you got some large pins from X, So I'll like to know how you feel wearing the pin in public and if it has been of any help to you.
17. Okay. You also mentioned that you stay more at home because you feel intimidated in public spaces, I would like to know how this makes you feel.
18. You also mentioned that it was quite intimidating asking strangers for help, so I'll like to know if there are any specific situations where you have to ask a stranger for help.
19. You also mentioned how people drive at the intersections around your home, is there something you think we should be doing with drivers to ensure safety for people with vision loss?
20. Are there any details of your experiences of community mobility in the environment that you'd like to add or talk about?

Second Interview: Jovita

1. You mentioned getting around with the bus or a taxi when your daughter is not available, are there any other means of transport you use to get around on your own?
2. What do you find frustrating about taking multiple trips with the paratransit service?
3. You talked a lot about using the GPS on your phone to go on your walks, so I'd like to hear more details on that. How did it feel when you started? Are there any challenges you find when using it?
4. Do you have any other experience with any other technological assistance besides from the GPS that aids your community mobility?
5. You also mentioned getting on the bus and how frustrating it is. Can you tell me about a specific example of that and how it made you feel?
6. How did that experience make you feel?
7. You also mentioned how frustrating crossing the roads are. Can you give an example of a time it was frustrating for you to cross the road and what you found frustrating?
8. You also mentioned running into obstacles on the sidewalks on one of your walks. Can you share an example of that experience and how you felt?
9. What do you think can be done to the sidewalks to support your community mobility?
10. You also mentioned having some challenging experiences at the mall, so can you give me an example of some of these experiences?

11. You also mentioned that you like to go on solo dates, but that has reduced over the years. Can you give me more details about that?
12. Do you have any other experiences on your community mobility that you'd like to talk about?

Second Interview: Kris

1. You mentioned the incident that led to your diagnosis. I would like to hear more about how you felt after the diagnosis. How did losing your driver's license make you feel?
2. How did you cope with the changes in your community mobility after losing your license?
3. How did asking your friends for help make you feel?
4. You talked about using the bus and how frustrating it was. Can you tell me more about your experience with the using the bus?
5. So how did you deal with the difficulties you faced when using the bus?
6. Did you find any other solutions to make using the bus easier for you?
7. You also mentioned using Taxis and not wanting to explore other transport options. Can you tell me more about your experience with using the Taxis?
8. Why didn't you want to explore other transport options?
9. So, you prefer to use a taxi when you need to go somewhere far and walk when the destination is close by?
10. Can you tell me more about your experience with using the white cane? How did using it make you feel?
11. How did you handle the challenge of people's reactions?
12. You also mentioned learning the sighted guide training and how you never got around to using it with your friends. Can you tell me more about that?
13. You also mentioned taking routine walks. Can you tell me more about your experience when you take these walks?

14. Can you describe a specific experience or challenge you faced when taking walks and how you overcame it?
15. Besides from the uneven sidewalks, are there other challenges that you face when taking walks around your neighbourhood?
16. So how do you feel asking strangers on the road for help in areas you're not familiar with?
17. You also mentioned that some of the sidewalks had tactile markings on them that helped during your walks. Can you tell me more about your experience with this?
18. Are there any other supports to your mobility around your neighbourhood?
19. Are there any barriers in the environment that you feel are a limitation to your community mobility?
20. Can you tell me more about the buildings and structures that are not accessible?
21. You also mentioned difficulty with going out at night. Can you tell me more about your experiences in this regard?
22. Can you tell me more about the voluntary work you do with the charity organization? Does it influence your community mobility in any way?
23. So based on your experiences with community mobility in your environment as an older adult with vision loss, what are some recommended changes in the environment you'll suggest should be made to support your movement around?

Second Interview: Jordan

1. You mentioned being in denial after you got the diagnosis. Can you tell me more about your experience regarding how you felt after the diagnosis?
2. Okay. How did you educate yourself?
3. You also mentioned feeling isolated from the world and how you stopped attending social events and visiting friends. What led you to make that decision?
4. You also mentioned using a white cane and high-contrast clothing to get around. Can you tell me more about your experience with those?
5. Do you feel comfortable using your cane to get around?
6. Can you tell me more about how the clothes helped you get around?
7. So how did you get to these CNIB meetings and social activities?
8. Can you tell me more about your experience with the navigation apps on your phone? How do you use them, and how do they support or restrict your mobility?
9. You also mentioned that shopping was challenging for you. can you give me a specific example of a time you went shopping, what the experience was like and what was challenging about it?
10. What's your experience with asking the store assistants for help?
11. You mentioned that some of the sidewalks were uneven and needed maintenance. I would like to hear more about your experiences with using the sidewalks. Can you give me a specific example of a time it was a challenge for you?
12. Do these experiences influence your decision to keep going out?

13. You also mentioned the traffic signals and that some of the audio signals do not work. I would like you to talk about your experience with them and, if possible, give a specific example
14. Do you have any other experiences regarding your community mobility that you would like to share?
15. Do you have any recommendations that would support your community mobility?

Third Interview

1. Does my rendering of your story reflect what you wanted to convey? Does my storyline capture the important aspects of your community mobility experience as an older adult with ARVL?
2. Is there anything you would like to omit, add, or change from my interpretations?
3. Do you have any further feedback on your participation in this research study?

APPENDIX VIII: Demographic Questionnaire

1. Please identify your gender _____

2. What is your age? _____

3. Which racial and/or ethnic group do you identify as (multiple responses allowed)?

 - Arab/West Asian (e.g., Armenian, Lebanese, Iranian) _____
 - Aboriginal (e.g. Inuit, North American Indian, Métis) _____
 - African (e.g. Somali, Nigeria, Egypt) _____
 - East Asian (e.g. Chinese, Korean, Japanese) _____
 - South Asian (e.g. Pakistani, East Indian, Si Lankan) _____
 - South East Asian (e.g. Cambodian, Malaysian, Vietnamese, Laotian) _____
 - Caucasian _____
 - Caribbean _____ Latin American/Hispanic _____ Filipino _____
 - Other (please specify) _____

4. What is your highest completed degree of education? _____
 - Some high school _____
 - Completed high school _____
 - Some university _____
 - Completed university _____
 - Some college _____
 - Completed college _____

- Post-university degree

5. Please specify your marital status _____

- Married _____
- Single _____
- Widowed _____
- Separated _____
- Divorced _____

Other (please specify) _____

6. Do you have children (Y or N)? If yes, how many children do you have?

7. What is your annual household income? _____

- < \$25,000 _____
- \$25,000 - \$50,000 _____
- \$50,000 - \$100,000 _____
- \$100,000

8. What is your ARVL diagnosis? _____

- Age-related macular degeneration _____
- Glaucoma _____
- Diabetic retinopathy _____
- Other (please specify) _____

9. How much can you see with your ARVL condition? _____

- Partially sighted _____
- Completely blind _____
- Can partially perceive light _____
- Other (please specify) _____

10. How long have you been diagnosed with your ARVL condition?

APPENDIX IX: Research Ethics Approval



Date: 25 August 2022

To: Dr. Colleen McGrath

Project ID: 121409

Study Title: "Take a walk in my shoes": A narrative account of the experiences of community mobility among older adults living with age-related vision loss (ARVL).

Short Title: "Take a walk in my shoes": A narrative account of the experiences of community mobility among older adults living with age-related vision loss

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 09/Sept/2022

Date Approval Issued: 25/Aug/2022 14:41

REB Approval Expiry Date: 25/Aug/2023

Dear Dr. Colleen McGrath

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Telephone Script	Recruitment Materials	27/Jul/2022	1
Demographic Questionnaire	Paper Survey	27/Jul/2022	1
Interview Guideline	Interview Guide	10/Aug/2022	2
Recruitment Flyer	Recruitment Materials	10/Aug/2022	2
Email Script	Recruitment Materials	10/Aug/2022	2
Letter of Information	Written Consent/Assent	23/Aug/2022	3
Written Consent	Written Consent/Assent	23/Aug/2022	3
Letter of Information	Verbal Consent/Assent	23/Aug/2022	3
Verbal Consent	Verbal Consent/Assent	23/Aug/2022	2

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
Screening Questionnaire	Screening Form/Questionnaire	27/Jul/2022	1
Community Resources	Other Materials	27/Jul/2022	1


No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Page 1 of 2

Please do not hesitate to contact us if you have any questions.

Sincerely,

 Randal Graham, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Claire Ibe

ACADEMIC CREDENTIALS

Master of Science

Health and Rehabilitation Sciences 2023
University of Western Ontario

Doctor of Optometry

Imo State University, Owerri, Nigeria 2011

RESEARCH EXPERIENCE

Research Assistantship

09/2021-04/2023

Vision Loss in Later Life (VITAL) Research lab, University of Western Ontario

Research Assistantship

04/2018-08/2021

Department of Optometry Teaching Clinic, Federal University of Technology, Owerri

TEACHING EXPERIENCE

Teaching Assistantship

09/2021-04/2023

Department of Health Sciences, University of Western Ontario

- HEALTHSCI 1002B
- HEALTHSCI 2300A
- ANATOMY 2300 LAB

Assistant Lecturer

04/2018-08/2021

Department of Optometry, Federal University of Technology Owerri, Nigeria

- Health and Human Behaviour
- Low Vision

VOLUNTEER EXPERIENCE

01/2015-08/2021

- Facilitated outreaches organized by Vision Arcade group UK towards the care and support of people living with cataracts in rural communities in Imo State, Nigeria.
- Coordinated and participated in the execution of awareness campaigns, outreaches, and sensitization seminars on various topics such as healthy living,

drug abuse, WASH campaign, etc. under the auspices of Nigercare Aid Development International an NGO based in Nigeria.

- Organized medical outreaches for rural community dwellers in Imo State, Nigeria.