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A Dissertation Submitted to Molloy College  
The Barbara H. Hagan School of Nursing & Health Sciences  
PhD in Nursing

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**The Lived Experience of Older Adults with Visual Impairments and Their Integration Into Social  
and Recreational Activities in the Long-Term Care Setting: A Phenomenological Study**

In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Philosophy

---

by

JULIE ANN CONBOY RUSSO

Susan Ann Vitale, Dissertation Chairperson

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Molloy College

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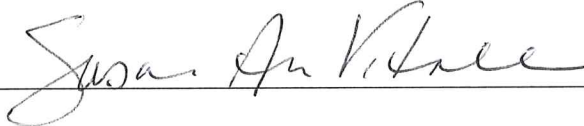
The dissertation committee of the Barbara H. Hagan School of Nursing has examined the dissertation titled

**The Lived Experience of Older Adults with Visual Impairments and their Integration into Social and Recreational Activities in the Long-Term Care Setting: A Phenomenological Study**


Presented by JULIE ANN CONBOY RUSSO

A candidate for the degree of Doctor of Philosophy


And hereby certify that the dissertation was read and approved by the committee.

  
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Date: April 7, 2022

## Abstract

The prevalence of vision loss in the elderly is high. Visual impairment in long-term care (LTC) settings may be a barrier to fully interacting in therapeutic recreational and social activities. Living with visual barriers may hamper safety (i.e., fear of falling and navigating in unfamiliar settings); cognitive ability; and participation in activities leading to isolation, depression, and loss of self-esteem. Decreased stimulation may affect one's overall happiness and quality of life. A qualitative phenomenological design was followed to capture the lived experience of older adults with visual impairments living in LTC settings and their integration into social and recreational activities in the LTC setting. Seventeen participants (12 women, 5 men) aged 69 to 100, were recruited through purposive sampling. Interviews were conducted from May 2021 through July 2021 by telephone and/or in person. The interviews were audio-recorded, transcribed, coded, and aggregated, which assured trustworthiness in the data analysis. NVivo 12® software was used to organize and code the data. The six-step approach of van Manen was followed through data collection and analysis. Five essential themes with sub-themes were identified: (1) Life Interrupted; (2) The Impact of Vision Loss; (3) Adaptation to the New Normal; (4) Embracing Relationships; and (5) Transcendence into the Future. This study resulted in a greater understanding of the lived experience of older adults with a visual impairment and their integration into social and recreational activities in a LTC facility. The participants conveyed the challenges they experienced from the time of diagnosis to the present and how they adapted to remain engaged in social and recreational activities.

*Keywords:* older adult, visual impairment, adaptation, phenomenology, van Manen, long-term care

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## **Chapter 1: Introduction and Statement of the Problem**

The aim of this study was to gain a greater understanding of the lived experience of older adults with a visual impairment and their integration into social and recreational activities in a long-term care (LTC) facility. A qualitative phenomenological design guided by a Heideggerian hermeneutics approach was followed to capture the essence of the lived experience. The participants, in their own words, conveyed the challenges they experienced from the time of diagnosis to the present, how they adapted to remain socially and recreationally engaged in activities, and how they overcame the effects of social isolation as a result of the COVID-19 pandemic.

### **Chapter Introduction**

This chapter offers a description of background information, including the problem statement, research questions, and purpose of the study. In addition, key definitions, the problem, methods to be used, research design, and relevance to nursing is discussed. Data collection and analysis is described with proposed relevance to the nursing profession.

### **Background**

In LTC settings, being visually impaired may be a barrier to engaging fully in therapeutic recreational activities, and as a result, safety and cognitive ability may be hampered. A lack of stimulation may affect overall safety (i.e., falls, medication management, transportation), and the decreased ability to engage and socialize with others may affect their quality of life. Social participation is a key determinant to healthy aging.

The prevalence of age-related vision loss is expected to increase. Between 2020 and 2050, the world population of those 65 years of age and older is expected to double from one billion to two billion. This aging population will contribute to increases in age-related diseases,

including age-related blindness from cataract, macular degeneration, and glaucoma (Review of Optometry, 2021). Age-related vision loss may result in negative impacts on social participation, which is also associated with a compromised quality of life, depression, anxiety, emotional distress, and increased mortality. These negative outcomes have been linked to a decrease in social participation, especially compared to those who do not have an impairment (Laliberte Rudman et al., 2016).

### **Problem Statement**

In LTC facilities, attention needs to be paid to those who are sensually impaired, especially those who are visually impaired. Their individual needs must be recognized through further studies targeted to address environmental modifications aimed at improving visual factors, as doing this can enhance the social participation of this population (Viljanen et al., 2014). A visual impairment can hamper people's ability to participate and engage in activities, leading to greater isolation, depression, and a loss of self-esteem (Tsai et al., 2003; Viljanen et al., 2014). Wang et al. (2012) found that 40% to 50% of older adults with chronic eye disease limited their participation in social activities because of the fear of falling, thus placing them at a higher risk for social isolation, immobility, and disability. A lack of stimulation may affect overall safety and the ability to socialize with others, affecting their happiness and quality of life (Fraser et al., 2019). Acquired vision loss in individuals, especially older ones, may affect their ability to communicate via face-to-face interaction, distinguish facial expressions, and interact socially (Fraser et al., 2019). An interdisciplinary review of the literature was conducted, with database searches including Google Scholar, PubMed, Science Direct, CINAHL, and Research Gate. Keywords used included the following: older adult, visual impairment, adaptation, phenomenology, van Manen, and long-term care. Studies related to this topic were identified in

other rehabilitative disciplines (i.e., physical, occupational, physiatry), but there was a lack of studies present in the nursing literature. In LTC settings, being visually impaired may be a barrier to fully interacting in therapeutic recreational and social activities.

### **Problem**

The lifespan of the older adult has lengthened greatly over time. By 2025, more than 25% of Americans will be over the age of 60. The prevalence of a visual impairment is about 15% for those over 65 and above 30% among those 75 years and older (Renaud & Bedard, 2013). Visual impairment is the leading cause of age-related disability estimated to affect approximately 14 million people (Bambara et al., 2009). It can lead to decreased productivity in the workforce, leading to absenteeism and early retirement (Anderson et al., 2020; The Vision Council, 2015). It is estimated that 1 out of every 28 Americans over the age of 40 have had some vision loss that greatly impacts one's independence, well-being, and quality of life (Anderson et al., 2020). Visual impairment may interfere with one's ability to participate in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) such as reading, gardening, preparing meals, traveling, watching TV, crafting, doing a puzzle, and playing bingo (Bambara et al., 2009). The overall effect of this impairment may lead to depression, hopelessness, and powerlessness, impacting safety and changes in the self-performance of daily activities.

These factors may lead to an unplanned transition from one's home to an alternative healthcare setting such as an LTC facility. Risk factors were generally attributed to those 85 years of age and older with a decline in health resulting in severe functional disability. A decrease in performing IADLs, sensory impairments (including vision loss), and fear of falling were also recognized as contributing factors. Changes in patterns of caregiving, exhaustion of the caregiver, and the inability of the family to give more care were also factors for admission



(McFall & Miller, 1992; Meehan & Shura, 2016).

There are over one and a half million licensed beds in nearly 16 thousand nursing homes in the United States. Vision care needs are dramatically high for LTC residents (Anderson et al., 2020), with 29% to 62% of LTC residents experiencing visual impairments (Meehan & Shura, 2016). According to the Centers for Disease Control and Prevention (2013-2014), eye care is not mandated in nursing homes in the United States. Barriers to providing eye care include resident or family silence, resistance from the facility, and a lack of community support, as most nursing homes do not have a plan for eye care services and access must be sought elsewhere. In a study by Anderson et al. (2020), it was found that residents and families place less value on visual assessment and treatment on these residents, reporting it as not important compared to younger adults and because of the complications and difficulties associated with eye care. A large portion of the visual ailments experienced by these residents could be managed and treated if access were facilitated and a comprehensive exam was performed at admission, annually and then as needed. LTC residents typically receive these examinations, but the exam may be limited if the resident is not cooperative due to dementia or a behavioral disturbance (Anderson et al., 2020).

Visual impairment is costly, taking a financial toll in the United States on human health, human capital, and the economy. It is estimated that the total economic burden of vision loss is 139 billion dollars annually. Direct care costs are estimated at 68 billion dollars annually and are defined as actual expenses related to an illness that contains medical costs (Anderson et al., 2020; The Vision Council, 2015). Medical costs include hospitalization and the use of medical services for diagnosis and treatment, assistive devices, home care, residential care, rehabilitation care and training, self-help groups, preventative activities, or transportation (Köberlien et al., 2013). Indirect costs account for approximately 72 billion dollars annually, putting a financial

strain on support and services provided by family and other unpaid caregivers (Anderson et al., 2020; The Vision Council, 2015). Indirect costs are defined as the value of lost output by reduced productivity due to illness or disability. Patients and caregivers are affected by indirect costs due to allowances (e.g., financial support for income, residence, benefits) and productivity losses (e.g., absenteeism, lost salary, loss of work; Köberlien et al., 2013). The direct and indirect costs of a visual impairment is approximately 16 thousand dollars annually per person (Anderson et al., 2020). As the overall age of Americans increase, the social and economic burdens of health care will increase dramatically (Anderson et al., 2020). Health care insurance coverage plans often determine the frequency, reason, and payment for eye care services. While vision care is included in Medicare, Medicaid, and most private insurance plans, services may vary (Medicaid.gov, 2022; Medicare.gov, 2022; Unite for Sight, 2010). In LTC, these financial providers are often used by the residents.

Adults over the age of 65 are eligible for Medicare. Medicare comes in two parts—Part A and Part B—and may cover some preventable and diagnostic exams. Medicare B covers yearly diagnosis-specific eye exams, but coverage is not provided for routine exams or for eyeglasses and contact lenses (Medicaid.gov, 2022; Medicare.gov, 2022; Unite for Sight, 2010). Medicaid is a program afforded to those with low income and who are uninsured, but specific eligibility criteria must be met. Those who qualify may receive vision benefits, but coverage varies by state (Haney, 2019). Private insurance is the main source of coverage for Americans under the age of 65 and often obtained through an employer. Many plans have a vision benefit. Those plans that do provide vision coverage services are often capitated for a period until those services are eligible again (Medicaid.gov, 2022; Medicare.gov, 2022; Unite for Sight, 2010).

Comprehensive eye exams are not always considered an essential service, and most

Americans seek services after a problem with vision has been identified. Eye care prevention and intervention could improve social life and overall physical, psychological, and emotional well-being as vision correction and care can reduce falls and lead to a better quality of life (Anderson et al., 2020). Quality preventative care is essential, yet services are complex and fragmented in the current health care system (Medicaid.gov, 2022; Medicare.gov, 2022; Unite for Sight, 2010). The prevalence of avoidable visual impairment over the past decade has decreased in older adults. According to the World Health Assembly Global Action Plan, the prevalence could be lower. The principal reason for this from a global perspective is the failure of eye care services to keep pace with the growing aging population (Bourne, 2021).

Little is known of how individuals living in LTC facilities with vision loss negotiate any vision-related barriers they may encounter in attempting to socially interact and participate in recreational activities. In addition, little is known on how nursing identifies these possible barriers and adaptations or facilitators in the LTC setting. Age-related visual loss is expected to increase in the future to approximately 7.7 million people by 2030 (Laliberte Rudman et al., 2016; Meehan & Shura, 2016). Social participation is a key determinant to healthy aging. While the literature supports that a lack of social participation has been shown to have negative effects (i.e., an increase in morbidity, isolation, and depression), social participation and interaction in activities can positively affect one's health, well-being, quality of life, a sense of fulfilment, increased self-worth, and social inclusion for individuals with visual impairments (Laliberte Rudman et al., 2016).

### **Purpose of the Study**

The purpose of this phenomenological research study was to explore the lived experience of older adults with visual impairments and their integration into social and recreational activities

in the LTC setting. A lack of social interaction and participation in activities can result from concerns about safety, leading to depression, isolation, loss of self-esteem, and changes in cognition and physical functioning (Brunes & Heir, 2020; Coyle et al., 2017; Petrovsky et al., 2019; Renaud & Bedard, 2013). The long-term purpose of this study was to provide nursing with information about helping older adults adapt and seek out available resources as needed. Insights gained from the findings of this study can result in the implementation of interventions unique to the individual with vision loss and may increase engagement and attendance in preferred recreational and social activities.

### **Research Question**

Here was the research question posed for this phenomenological study: What is the lived experience of older adults with visual impairments and their integration into social and recreational activities in the LTC setting? Vision impairment may be a barrier to one's ability to participate in social activities. Social participation in older adults with a visual impairment may positively affect their health, well-being, quality of life, and feeling of inclusion, while decreasing depression, dangers, and isolation (especially as it currently pertains to the COVID-19 pandemic). This was the main question for the present study: Can you please describe the effect of your visual impairment here at (LTC facility)? The goal of this question was to understand the lived experience of the participants living with a visual impairment to reveal themselves and to identify any possible barriers and adaptations or facilitators into social and recreational programs within their setting.

Follow-up questions included the following:

- How might your vision impairment hold you back and prevent you from socially interacting with others?

- How do you spend most of your time?
- What types of social and recreational activities do you or would you like to participate in (here at the LTC facility)?
- Tell me about living here. Have you had to adapt to the environment/living space because of your vision impairment?
- How has nursing and other members of the healthcare team helped you in adjusting to the environment?
- What is the one thing that you miss most about your recreational/social life as a result of your vision impairment?
- What has been done to help you participate in social/recreational activities here at the LTC facility?
- What would you like to be done so that you may participate more fully in social/recreational activities?
- How has the COVID-19 pandemic affected your participation in social/recreational activities?

### **Definition of the Terms**

*Activities of Daily Living (ADL):* Activities including personal care, dressing, bathing, mobility, toileting, and feeding (Bambara et al., 2009).

*Adaptation:* A positive response to environmental changes; the process and outcome of individuals who use conscious awareness, self-reflection, and choice to create human and environmental integration (Roy, 2009).

*Age-Related Macular Degeneration:* An eye disease with its onset usually after age 60 that can progressively destroy the macula, the central point portion of the retina, impairing central vision

(Houde & Huff, 2003; The Vision Council, 2015).

*Anterior Ischemic Optic Neuropathy*: A sudden loss of vision due to an interruption of blood flow to the front (anterior) of the optic nerve, often noticed upon awakening due to nocturnal hypotension (Cleveland Clinic, 2015).

*Cataract*: A clouding of the lens in the eye because of tissue breakdown and protein clumping (Houde & Huff, 2003; The Vision Council, 2015). Causes of cataracts include aging, cortisone medication, trauma, diabetes, and other diseases; this affects most people who live into old age. Symptoms include double or blurred vision and sensitivity to light and glare (Houde & Huff, 2003; The Vision Council, 2015).

*Diabetic Retinopathy*: A disease of the retina caused by diabetes that affects the tiny blood vessels in the back of the eye; without treatment, the blood vessels may cause bleeding, which can cloud vision and destroy the retina (Houde & Huff, 2003; The Vision Council, 2015).

*Glaucoma*: A common eye condition in which the fluid pressure inside the eye rises to a level higher than healthy for that eye (Houde & Huff, 2003; The Vision Council, 2015).

*Instrumental Activities of Daily Living (IADL)*: Activities that extend beyond ADLs, including recreational activities such as reading, gardening, preparing meals, traveling, watching TV, crafting, doing a puzzle, and playing Bingo (Bambara et al., 2009).

*Leisure*: An activity that is pleasurable and done during free time (Berger, 2011).

*Low Vision Adaptive Devices (LVADs)*: “any item, piece of equipment or product system whether acquired commercially, modified or customized that is used to increase, maintain or improve the functional visual capabilities of an individual with a disability” (McGrath & Corrado, 2018, p. 493).

*Low Vision*: Condition caused by eye disease in which visual acuity is 20/70 or poorer in the

better seeing eye and cannot be corrected or improved with regular eyeglasses (Scheiman et al., 2007). Someone with low vision “has difficulty accomplishing tasks even when prescribed lenses but who can enhance his or her ability to accomplish those tasks with the use of contemporary visual strategies, assistive devices and environmental modifications” (Fraser et al., 2019, p. 1). Common causes of low vision include age-related macular degeneration, diabetes, glaucoma, brain injuries, cancer of the eye, or inherited disorders.

*Occupational Engagement:* Engagement in work, play, or ADL that is considered part of one’s sociocultural situation that is preferred and needed for one’s well-being (Burgess, 2003).

*Quality of Life:* An individual’s subjective measure of both positive and negative aspects of his or her own life (Centers for Disease Control and Prevention, 2011). Simply stated for the purpose of this study, *quality of life* is defined as whatever the participant believes it to be.

*Recreation:* The notion of involvement in an activity that is oriented toward treatment, education, or recreation as a means for improving the health and well-being of people with disabilities (Sylvester et al., 2001).

*Roy Adaptation Model:* The model considers the person as a bio-psycho-social being in constant interaction with a changing environment consisting of stimuli-promoting adaptation in four adaptive modes (i.e., physiologic, self-concept, role function, and interdependence; Roy, 2009).

*Social Isolation:* An occurrence where people are physically separated from other people. This occurs when a person has limited opportunities to see and interact with others (National Institute on Aging, 2019).

*Vision Rehabilitation:* Training in the use of optical aids and other devices, training in adaptive skills for performing everyday activities, psychological services, and vocational counseling (Owsley et al., 2009).

*Visual Impairment:* A condition caused by eye disease (i.e., glaucoma, macular degeneration, cataracts, diabetic retinopathy, trauma, or heredity) in which visual acuity is 20/70 or poorer in the better seeing eye and cannot be corrected or improved with regular eyeglasses, contact lenses, medicine, or surgery. A visual impairment is a loss of eyesight that makes everyday tasks difficult, and one may find it hard to accomplish activities such as reading, writing, watching TV, or even recognizing faces (Petrovsky et al., 2019; Scheiman et al., 2007). For this study, the participant's visual impairment is the self-described diagnosis or condition, determined by an individual based on his or her perceived visual ability and its effect on daily functioning (American Foundation for the Blind, 2020).

### **Philosophical Framework**

A constructivist framework, which embraces qualitative and phenomenological research, was applied to this study. Constructivist researchers address the process of interaction among individuals. With this approach, individuals seek to understand the world in which they live and work. Individuals also develop subjective meanings of their experiences. Thus, the objective of the present research was to closely examine the data, looking for the complexity of views rather than narrowing down the meanings into a few categories or ideas. Constructivists rely on the participant's views of the situation being studied with a focus on the specific contexts in which people live and work to understand the historic and cultural settings of the participants (Polit & Beck, 2017). The underlying assumption of this dissertation was Heidegger's perspective that all data and observations have meaning. This background made Heidegger's hermeneutic approach the optimal choice for conducting this phenomenological study.

### **Philosophical and Experiential Assumptions**

The researcher's philosophical and experiential assumptions of the study are that as a



nurse and a researcher, she remains in the world of nursing and values the concept of holism. The ability to interpret data is reliant on the researcher's experience of being a nurse and having a background understanding of visual impairment. The researcher's bias and assumptions about older adults living with visual impairments and the potential barriers that exist from having them fully adapt into recreational and social activities results from more than 20 years of working in LTC as an educator and member of a nursing administration team. The researcher has observed older adults with visual impairments not fully engaged in programs adapted to their needs. Low vision is not always assessed, and adaptive devices are not provided to them by either the rehabilitation or the recreation staff. Many appear to express boredom, with some falling asleep because little attention is given to them. While activity calendars are provided in corridors, day rooms, and individual rooms, satisfaction surveys about the offered programs seldom, if ever, occur. Environmental modifications such as lighting and furniture placement are not often considered. The researcher consciously reflected on her own perspective and clinical experience while serving as an instrument to interpret others' expressions. Therefore, there was no acceptance of bracketing in this study.

### **Research Design**

For this study, a qualitative phenomenological design was guided by the approach of Heideggerian hermeneutics to capture the essence of the lived experience of older adults and their integration and adaptation into recreational and social activities in the LTC setting. The purpose of phenomenology as a method of inquiry is discovering patterns or structures of phenomenon lived within the fabric of one's everyday life (Edward & Welch, 2011; Heidegger, 1962). In hermeneutic phenomenology, Heidegger was concerned with the human existence as it is lived and advocated for the utilization of hermeneutics as founded on the ontological view; the

primary phenomenon is that the lived experience is an interpretive process where consciousness is not separate from the world of human existence. In Heidegger's approach, individuals can share their experiences in an uncontaminated way (Heidegger, 1962; Wu et al., 2010). These experiences may be similar or different. Amongst the individuals studied, there may be more than one viewpoint, more than one experience, and more than one truth as each participant's experience is unique to him or her. Insights can be gained into the participant's experiences through interviewing, investigating, and describing those experiences to allow the individuals to describe their own lived experience. Hermeneutic phenomenology is attending to other people's experiences and reflections to better understand the deeper meaning of a specific human phenomenon within the context of the whole human experience. Hermeneutic phenomenology allows the researcher to include one's own experience in the process of data collection and analysis. This approach requires researchers to acknowledge their own past experiences and existing knowledge, which is essential to the interpretive process and allows the researcher to openly reflect on, share, and attend to their subjectivity during data collection and analysis. The researcher is embedded in the process that allows a deep connection to the participant's life experience. Phenomenology is based on a retrospective reflection on an experience that is already lived through. It is an attempt to uncover and describe the structures of the lived experience (Heidegger, 1962; Wu et al., 2010).

Data collection, analysis, and management strategies were used in congruence with the six-step approach taken by van Manen (1997). Step 1 consisted of turning to the nature of the lived experience. Step 2 involved investigating experience as we live it. In Step 3, the researcher reflected on the essential themes that characterize the phenomenon. Step 4 involved describing the phenomenon in the art of writing and re-writing. Step 5 involved maintaining a strong and

oriented relation to the phenomenon. Step 6 required balancing the research context by considering the parts and the whole (van Manen, 1997). A journal of field notes and memos were used as part of the data collection and analysis.

### **Relevance to Nursing**

The findings from this phenomenological study revealed the perspectives of the participants through their personal and lived experience of dealing with vision loss and their participation in social and recreational activities in the LTC facility. Through the lives of those who participated, the findings of this study offered new knowledge in recognizing any barriers, adaptations, or facilitators in the engagement into social and recreational activities. The findings are instrumental in developing strategies to help participants adapt and adjust, to make appropriate resources available and accessible, and to work with them to improve activity processes. Improving activity processes can enhance the engagement of the participants in preferred activities, thus decreasing isolation and depression while increasing their safety, cognition, self-esteem, and their quality of life. In addition, insights into future nursing research, education, and health policy reform in areas such as health insurance, early diagnosis, and implementation of preventative measures warrants further investigation as they can delay visual changes in the future.

### **Chapter Summary**

This chapter offered a summary of the purpose, problem statement, methods used, and the research design and its relevance to nursing. The collection and analysis of the data from this proposed phenomenological study revealed the perspectives of the participants through their lived experience.

Little was known in navigating, identifying, and recognizing any barriers, adaptations, or

facilitators in integrating older adults with visual impairments into social and recreational activities. This knowledge can better inform nursing to help this population adapt, adjust, and to make appropriate options and resources available and accessible. Nursing can improve activity processes, thus decreasing depression, fearfulness, and isolation while living in LTC.

The next chapter addressed the review of the literature and evolution of the study. This provided a review of the present state of knowledge that addressed older adults with visual impairments and their integration into recreational activities in the LTC facility. The essential approach to the literature review in this study was reviewed to see what already is known about the study topic and to determine if any gaps exist, leading to further exploration.

## **Chapter 2: Literature Review**

### **Chapter Introduction**

Chapter 2 provides a review of the present state of knowledge that addresses older adults with visual impairments and their integration into recreational activities in the LTC facility. The approach to the literature review in this study was guided by the intent of qualitative research, to empower individuals to tell their stories in their own words (Creswell, 2013). The literature was reviewed to see what is already known about the study topic and to determine if any gaps exist leading to further exploration (Polit & Beck, 2017). The background on visual impairment includes topics on costs, medical causes, quality of life, socialization, depression, isolation, and safety. COVID-19 issues are also reviewed.

### **Vision Impairment and Costs**

Vision impairment is a common problem with older adults. It often occurs in Americans 70 years of age and older, although the incidence will rise in those 85 years and older. Prevalence is expected to increase. Globally, it has been projected that the number of older adults will increase from 605 million in 2000 to approximately 2 billion in 2050 (McGrath & Corrado, 2018), while the number of people living with a vision impairment will rise from 38.5 million in 2020 to 115 million by 2050 (Dillon et al., 2020). In 2015, it was estimated that 1 out of every 28 Americans over the age of 40 had some vision loss, making everyday activities difficult (i.e., driving, reading a newspaper, pouring coffee, getting dressed, watching TV). Decreased vision is also a contributing factor for falls. Approximately 24 thousand Americans over the age of 65 succumb to injuries because of a fall resulting in social isolation, immobility, depression, and disability, where the overall effect can lead to placement into an alternate living facility (The Vision Council, 2015). Vision impairment can lead to loss of independence, an increase in falls,

and social isolation affecting one's self-esteem and overall quality of life. As a result, vision impairment may affect one's ability to engage in social and recreational activities (Houde & Huff, 2003; The Vision Council, 2015).

### **Common Causes of Vision Impairment**

The four most common causes of vision impairment include age-related macular degeneration (ARMD), glaucoma, cataracts, and diabetic retinopathy. ARMD is the leading cause of moderate to severe bilateral vision impairment in older adults over the age of 70. Prevalence rates are expected to increase as the population ages (Wood et al., 2018). ARMD is a progressive, degenerative process where there is no known cure. ARMD results in a loss of central vision and comes in two forms: "wet" and "dry," with "dry" being more common and "wet" resulting in a higher incidence of blindness. In ARMD, round or oval areas of atrophy form in the retina and underlying structures of the eye. This degeneration of retinal pigment cells occurs with a decrease in the number of rods and cones. As a result, adults may complain of distorted objects, difficulty focusing or reading, sensitivity to glare, blurring of central vision, and diminished color (Houde & Huff, 2003; The Vision Council, 2015). It is estimated that two million Americans over the age of 50 are impacted by ARMD, and as per the Centers for Disease Control and Prevention, it is estimated that as many as seven million Americans are at risk for developing ARMD (The Vision Council, 2015).

Glaucoma is the second-leading cause of blindness in the United States. It consists of impaired drainage of aqueous fluid in the retina, which causes increased pressure within the eye. Damage to the eye is irreversible, but with the use of medication (i.e., eye drops), pressure within the eye can be controlled. Often, adults with glaucoma experience a difficulty in adapting to darkness and glare, loss of sensitivity to contrasts, and difficulty functioning in dim light (Houde

& Huff, 2003; The Vision Council, 2015). As per the National Eye Institute, approximately three million Americans are living with this condition (The Vision Council, 2015).

Cataracts occur when the lens becomes discolored, thin, and cloudy in appearance, usually resulting from aging. Loss of vision due to cataracts is often slow, but older adults express difficulty with glare and blurred vision. Surgery can often correct this and improve vision (Houde & Huff, 2003; The Vision Council, 2015). According to Prevent Blindness America (2010), a non-profit voluntary organization dedicated to fighting blindness and saving sight, more than 20 million Americans live with this condition every day (The Vision Council, 2015).

Diabetic neuropathy is the leading cause of blindness in older adults with diabetes and in working-aged adults. The cause is unknown, but it is commonly thought to result from uncontrolled blood glucose levels leading to a rise in hyperglycemia. Strict control of blood glucose by adhering to diet and medications can decrease the incidence and progression of the disease. Controlling blood glucose levels is thought to increase the flow of oxygen to the tissues. There is no main cure, but laser therapy can be effective in its management (Houde & Huff, 2003; The Vision Council, 2015). According to the National Eye Institute, more than 30% of Americans diagnosed with diabetes have some form of this disease, which translates to approximately seven and a half million Americans (The Vision Council, 2015).

### **Factors That Influence the Occupational Engagement of Older Adults With Low Vision**

McGrath and Laliberte Rudman (2013) identified factors that influenced the occupational engagement of older adults with vision loss. Factors included demographic variables, degree of vision loss, emotional components (including fear), behavioral components (including refusing and delaying rehabilitation services and accepting risk), and environmental components

addressing the importance of supportive spaces and having trouble in social situations. They identified that emotional components such as fear were expressed by many older adults with vision impairment as they were afraid of falling and hurting themselves. This fear included walking in the community and crossing the street, being afraid of losing their way in the community, and being uncertain in their physical surroundings. Participation in activities was subsequently restricted because of these factors. Many participants wanted to remain as independent as possible because they feared placement into a nursing home. Many of them developed strategies such as accepting visual devices to maintain independence and involvement in activities rather than asking for assistance. In terms of the emotional response to vision loss, the researchers identified that participants often had negative and emotional responses to vision loss, which influenced their occupational engagement. Often, they felt grief and frustration in having to give up things often taken for granted. The participants experienced sadness, feelings of low self-worth, and a loss of control. Some identified a sense of hopelessness in that they had little choice but to accept the inevitable, which was a progression of their loss and the tasks often accompanied with it. However, some participants tried to be positive, accepting the inevitable and dealing with it as best as possible. Many found that having social networks led to more effective coping and a better adjustment in accepting their vision loss, which helped them prepare for the future. The goal of low-vision rehabilitative services is to help visually impaired adults adapt to their vision loss and maximize their potential in occupational performance by using their remaining visual capacity in addition to assistive devices and adaptive strategies. However, many older adults with vision loss refuse these services. McGrath and Laliberte Rudman (2013) discovered it was a threat to their independence and did not want to identify themselves as having a vision loss. While optical devices were used by many, others saw them as



not being practical as well as being costly.

For many, giving up occupational activities often resulted from physical and social risks. Self-restricted access to the environment was an identifiable physical risk. Older adults frequently limited engagement in community activities if they were alone and did not have the accompaniment of someone else. Aspects of the environment influenced one's ability to maintain independence in performing certain activities, such as weather, season, time of day, and lighting (McGrath & Laliberte Rudman, 2013). Older adults with vision loss who made home modifications to the environment had a more supportive environment in relation to one's performance of IADL than one without support. Those who were willing to accept risk tended to engage more in meaningful activities by asking for help, planning, using assistive devices, and restricting activity to specific conditions and environments. McGrath and Laliberte Rudman (2013) also discovered that vision loss contributed to social risks and challenges; in social situations, the older adult with vision loss identified a lack of understanding among those without vision loss in overestimating or underestimating what a person could do.

In a study by Boerner and Wang (2010), participants found it difficult to engage in social situations due to their inability to respond to visual cues, which restricted engagement. As per Copolillo and Teitelman (2005), feelings of stigma and embarrassment were identified by participants, especially when in public settings. Laliberte Rudman et al. (2010) discovered that social supports were accepted by some affected with vision loss, while others expressed feelings of resentment in having to rely on others. This reluctance to rely on others often resulted in decreased occupational engagement and social isolation. Environmental components suggest that there are a variety of physical and social environmental factors that can adversely affect the occupational engagement of older adults with vision loss, but this research is sparse and

demonstrates a gap within the current literature base, identifying it as an area for further exploration.

### **Environmental Factors That Influence Technology Adoption for Older Adults With Vision Loss**

According to a study by McGrath and Corrado (2018), it is known that with an increase in the proportion of older adults with vision loss, low-vision assistive devices (LVADs) can help support occupational engagement. However, these devices are grossly underused in this population. The purpose of their qualitative study was to examine environmental factors influencing technology adoption for older adults with age-related vision loss and to plan, organize, and facilitate a knowledge mobilization workshop to assist them with technology adoption. As a result of their study, four themes emerged: (1) making life harder; (2) relying on support networks; (3) factoring in the pragmatics; and (4) “not me, not yet” (McGrath & Corrado, 2018, p. 496). These themes illustrated the ways that environmental factors (i.e., physical, social, cultural, political, institutional) influenced decision making regarding technology adoption by older adults with vision loss. The researchers identified that older adults with visual impairment rely more on LVADs than sighted peers, with the number of devices increasing as access to caregiving support hours is decreasing. LVADs, when used correctly, can help those with vision loss engage in a variety of meaningful activities such as reading mail, writing a shopping list, watching TV, or cooking a meal. However, despite the benefits of using them, many older adults do not acquire them and, as a result, they are quickly abandoned and not purchased, citing reasons such as inability to access them, insufficient knowledge on how to use them, and cost. Many stated they felt they were managing well without them as they strove for self-perseverance so they could remain independent. Many felt they were not easily used and

invaded their privacy. The study suggested the importance of providing adequate training and instruction on LVADs to those with vision loss; many LVADs do not come with instruction manuals that can easily be read, as the fonts are too small and the colors are distracting. A role exists for occupational therapists and nurses in advocating for the inclusive design of LVADs that are appealing, intuitively designed, and portable.

### **Vision Impairment and Impact on Quality of Life**

According to Kempen et al. (2012) a study was conducted to examine the impact of low vision on health-related quality of life, including feelings of anxiety and social support among community-living older adults seeking vision rehabilitative services. Previous studies showed that older persons with vision loss generally reported low levels of health-related quality of life, while study outcomes with respect to feelings of anxiety and social support were inconsistent. Low vision is associated with negative outcomes such as limitations in ADLs, physical dysfunction, depression, and low health-related quality of life. In the Netherlands, low vision among persons age 50 and older was estimated at 3.3% in 2008 but was expected to rise to 18% by 2020. The research conducted was quantitative, consisting of two groups: a study group and a group utilizing randomized controlled trials to evaluate orientation and mobility training by two nonprofit organizations for low vision care. The sample size consisted of 148 adults aged 55 and older who lived independently or in a home for older persons, applied for rehabilitative services, and were screened. Tools to measure the quality of life and ADLs, psychological distress, and social support were used. Results of the study concluded that older persons with vision loss reported poorer levels of functioning in ADLs, symptoms of depression, and feelings of anxiety compared to older persons with different chronic conditions. In contrast, older persons with vision loss reported higher levels of social support. It was suggested that health care

professionals working in vision rehabilitation services take these items into account, as it may likely improve the older person's quality of life.

### **Vision Impairment and Depression**

Vision is an important contributor to living a pleasurable life and conducting activities effectively. Loss of vision restricts activity, fosters dependence, and diminishes the sense of well-being in older people. Impaired vision is associated with reduced quality of life, predisposition of falling and fractures, decreased physical and social function, limitation of ADL, and increased isolation of the elderly in their homes. Depression is one of the most common psychiatric disorders in later life associated with a variety of physical illnesses or disorders such as heart disease, cancer, diabetes, and stroke (Brunes & Heir, 2020; Renaud & Bedard, 2013; Tsai et al., 2003).

A quantitative study was conducted by Tsai et al. (2003) to identify factors associated with depression with a focus on the association between impaired vision and depression among the elderly in a Taiwanese metropolitan community. The study was population based, focusing on eye diseases among those 65 years of age and older. Based on a census of 4,750 persons 65 years and older, 3,746 registrants were eligible and 2,045 were randomly selected to participate. Data were collected via a structured questionnaire where door-to-door visits were made. After the completion of the interview, they were invited to a Veteran's Administration hospital in Taiwan for an eye exam consisting of many diagnostic tests. Of the 2,045 potential subjects, 1,361 met the study criteria for completing the questionnaire and eye examination. The Geriatric Depression Scale was used to screen for depression, as the main interest in the study was to determine whether there is a relationship between visual impairment and depression. The study concluded that there was a significant association between impaired vision and depressive

symptoms in the elderly community and emphasized the impact of impaired vision on depressive symptoms.

Impaired vision, as per the Geriatric Depression Scale, was a positive predictor of the following items: not being wonderful to be alive now, feeling unhappy most of the time, feeling worthless the way they are now, and feeling their situation is hopeless. The study concluded that visual impairment was associated with feelings of worthlessness and hopelessness. The elderly often feel that vision loss is expected in later life and often ignore disturbances or impact with worsening vision. Hence, there is an ongoing need for public education regarding the importance of vision care in the elderly (Tsai et al., 2003). Visual impairment can cause difficulties in self-care and hampers activities previously taken for granted (Renaud & Bedard, 2013).

A study was conducted by Brunes and Heir (2020) to estimate the prevalence of depression in adults and its association with visual impairment characteristics and life satisfaction. The method consisted of a telephone-based cross-sectional survey between January 2017 and May 2017. The sample was age stratified, crossing categories of gender and age along four different age groups. They were all members of the Norwegian Association of the Blind and Partially Sighted. A total of 1,216 members were contacted, with 736 adults participating (a response rate of 61%). The study revealed that losing vision later in life and having other impairments were associated with higher rates of depression, whereas older age was associated with lower loss. Participants who were depressed also had a lower life satisfaction than those who were not depressed.

Data were collected through structured telephone interviews. Inclusion criteria consisted of those who had a visual impairment or an untreatable eye condition that would progress to low vision and blindness. The interview guide consisted of more than 120 questions, which included

a depression scale, a life satisfaction scale, and referrals to psychologists if necessary. The interview took about 30 minutes to complete. The above tools covered a broad range of topics, including socioeconomic factors, cause and age of vision loss, serious life events, coping, mental health, and quality of life. Key findings of the study based on a statistical analysis of the data revealed that losing vision in adulthood and having additional impairments were found to be independently associated with higher rates of depression, whereas older age had decreased rates. Adults who acquired vision impairment later in life and combined with other impairments had higher rates of depression. It was noted that vision impairment may result in traumatic change to one's daily life activities, affecting driving and traveling outside the home. Changes in self-esteem, self-efficacy, identity, social relations, and well-being are prevalent. Many expressed stress-related reactions (i.e., shock, fear, frustration, helplessness, and grief). Future life prospects can become affected such as maintaining employment and independence. Those who lost vision earlier in life might have adapted to their vision loss and accepted their situation. The lack of social interaction due to vision loss is greatly affected and may make life less pleasurable and meaningful, often leading to loneliness and social isolation. The study concluded that depression could result from vision loss and higher awareness (i.e., access to education, work, social services), and mental health may reduce the risk of depression and provide a sense toward greater self-esteem.

The prevalence of vision loss in the elderly population is high. In the United States, approximately 15% of people over the age of 65 and up to 30% of people aged 75 and older have been impacted by this loss. The onset of visual impairment in later life alters life routines. Older people with visual impairment present more restrictions in the participation of activities than their peers, have fewer social interactions, feel lonelier, and are at risk for depressive symptoms.

A literature review conducted by Renaud and Bedard (2013) looked at the relationship between depression and quality of life in the visually impaired older adult. A search of literature via multiple databases (i.e., MEDLINE, PubMed, PsychoInfo) identified a total of 500 records. A total of 18 articles were reviewed after screening each article and determining its eligibility. In the reviewed articles, several studies were conducted using a variety of different surveys and questionnaires. Their literature review revealed that there was an association between severe depressive systems and a worsening of quality of life in older adults with visual impairment. The researchers concluded that the treatment of depression can have a positive impact on one's quality of life, but depression must first be diagnosed. The researchers mentioned that late-life depression is often unrecognized or untreated in the overall older population and not just those who are visually impaired. They concluded that there is more to do, as many older adults do not always disclose that they have depressive symptoms. Often, the visual changes are easier to blame for poor performance in life routines than to look for depression. A trained practitioner may need to search for signs and symptoms of depression. While programs addressing depression issues have been developed, interventions to prevent and treat depression are essential. Renaud and Bedard (2013) concluded that future efforts need to be established in clinical settings to assist practitioners to identify depressed older adults with visual impairments so treatment can begin immediately, as pharmacological management and psychotherapy have been helpful and have been shown to improve overall function.

### **Visual Impairment and Driving**

A study by Ortiz-Peregrina et al. (2020) examined the association between different parameters that characterize visual function and simulated driving performance to determine which parameters are most significant when evaluating driver eyesight in older drivers, as the

overall aging population is leading to an increase in the number of older drivers. It is anticipated in this decade that approximately 65% of people over 65 years of age will be actively driving, and data suggest that drivers over the age of 65 are known to experience an increase in accidents per kilometer driven. Their study consisted of a sample of 44 drivers, including 22 younger drivers (aged 25-40) and 21 older drivers (over the age of 55). The sample was recruited from the general population via an online campaign. Inclusion criteria consisted of those who were considered to be in good general health, had normal visual acuity, had no eye diseases or intraocular lens, never had surgery, and were licensed drivers who drove regularly. Demographic data were collected, visual function was assessed, and driver performance via a driving stimulator was performed. Findings concluded that older drivers were found to have diminished visual acuity and poorer contrast sensitivity influenced more by a glare or halo as compared to the younger population. Due to these changes, the older population experiences a decline in status in performing certain tasks, including driving, which increases the risk for accidents. Often, this causes the older driver to self-regulate their driving or to stop driving altogether. Ortiz-Peregrina et al. (2020) concluded that older drivers have a greater incidence of lane excursions: more difficulty in changing lanes and less control over the vehicle's position in unexpected events or divided attention tasks. These changes often result in older drivers being slower and less accurate when detecting stimuli on the road, making for a poorer overall driving performance. The researchers stated that more investigation is needed to confirm their results analyzing the impact of different levels of straylight (glare) on actual driving performance in different environments and conditions and to the potential benefit of straylight assessments, especially when testing older adults' fitness to drive.

A study conducted by Wood et al. (2018) investigated the impact of ARMD using a



standardized on-road driving assessment conducted under in-traffic conditions to represent typical driving conditions. The researchers identified that people with ARMD have several functional difficulties affected with the impairment such as decreased reading ability; face recognition; postural stability; and increased fall, risk, and injury rates. Drivers with ARMD self-report more difficulties with driving particularly at night even in the early stages of the disease. Self-reported difficulties included reduced sensitivity and frequent avoidance of challenging driving situations such as nighttime driving, unfamiliar territory, and rush hour, with many ceasing driving in the advanced stages of the condition. Simulator studies of small numbers of older drivers suggest impairments in some aspects of driving, specifically with braking time, slower speeds, and more lane crossings. Driving routes included tasks completed in normal day-to-day driving, with design and location selected to match the normal driving demands for most drivers. The aim of their study was to explore which measures of visual function would be most strongly associated with driving ability and safety in drivers with ARMD, as this had not been previously investigated. They hypothesized that sensitivity would have the strongest association with driving ability, as contrast sensitivity has been shown to be predictive of crash risk and driving performance in older adults with cataracts.

The present study was a quantitative research involving 33 drivers over the age of 65 with ARMD of different grades (either early or intermediate). Visual tests were performed, which included visual acuity, contrast sensitivity, visual fields, and motor sensitivity. In addition, on-road driving performance was assessed in a dual brake vehicle, with an occupational therapist in the car. Outcome safety measures included driver safety ratings on a scale of 1 to 10 (where higher ratings represented safer drivers), types of driving behavior errors, location at which errors were made, and the number of critical errors where instructor intervention was necessary.

The study concluded that drivers with ARMD were rated less safe; had a higher rate of critical errors; and exhibited more observation, lane-keeping, and gap-selection errors, with more errors at traffic light-controlled intersections. The researchers also determined that drivers with early and intermediate ARMD can exhibit impairments in their driving performance, particularly with more complex driving situations. In addition, their findings have more important implications for assessing the driving ability of older adults with visual impairment.

A longitudinal study by Keeffe et al. (2002) was conducted with an aim to establish an association between vision impairment as measured by visual acuity and drivers' decisions to stop driving, voluntarily restrict driving, and the number of motor vehicle accidents in a cohort of residents representing urban Australians. The researchers discovered that in the age group 80 years of age and older, one in three people have vision loss less than the legally required standard, and it is predicted that by the year 2051, there will be at least double the number of people with impaired vision. The Melbourne Visual Impairment Project was a population-based study of adults in Melbourne, Australia. In this study, eligible residents were defined as people 40 years of age and older randomly selected from the Melbourne Statistical Division. Letters were sent to 3,271 participants from the baseline study inviting them to participate in a five-year follow-up study.

Participants were asked to complete an extensive eye health-related questionnaire in addition to having a standard ophthalmic examination performed. Due to attrition, the final sample number was 2,308 participants, with 1,787 claiming they were still current drivers. Of those participants, 339 (19%) reported at least one motor vehicle accident. The majority (86%) had been involved in one accident, 12% reported having two accidents, and 2.4% reported having three to five accidents. Of the 339 who had accidents, 9.5% reported their accidents being

related to vision. People with impaired vision were no more likely to have an accident or report their accident as a result of impaired vision. Many participants from the study chose to stop driving. Reasons given included impaired vision, illness, or having an accident. Drivers who reported restricted driving attributed it to not wanting to drive in adverse conditions such as nighttime, rush hours, bad weather, and limiting the overall distance driven. Those who chose to limit their driving in these conditions comprised 575 of the participants who stated it was due to vision. Older drivers, as compared to younger ones, were significantly more likely to restrict their driving at night, during rush hour, or driving in the city areas; however, there was no significant difference in restricting driving due to bad weather or driving distance.

Keefe et al. (2002) concluded that an inability to see and detect objects had obvious consequences for driving, but there was no convincing evidence of the exact time in which visual acuity became unsafe, which ultimately resulted in an increased risk of accidents. The study concluded that there are many drivers driving with visual impairments lower than is required by law, as people with impaired vision might be hesitant to seek an eye examination for fear they could lose their license and not be permitted to drive.

### **Vision Impairment and Socialization**

The occupational lives of older adults with visual impairment are limited, and older adults with a visual impairment experience an enhanced sense of risk that results in the “shrinking” of physical and social spaces. The older population often struggles to maintain independence in visually dependent occupations and activities that previously posed no obstacles or risks. They participate in fewer daily activities and social roles than those without a visual impairment. Certain barriers exist such as physical and social environments that are not accessible and create complications requiring adaptation that includes lighting considerations,

decreased patterns and clutter in the environment, increased contrast, and the implementation of organizational strategies: “In order to live in a world created for the sighted, older adults with visual impairment must adapt in order to complete vision dependent activities which require reading, writing and object identification” (Nastasi, 2017, p. 266). Nastasi (2017) conducted a qualitative study to explore the occupational lives of three older adults with a visual acuity of 20/60 to total blindness. This method allowed for greater depth of understanding context and process, as well the understanding and linking of causes and outcomes. Themes that emerged from the study were “an occupational life of doing; an occupational life rich with well-being and an occupational life filled with motivation in independence” (p. 269). The study revealed that participants were highly motivated to complete their occupations and activities independently. Participating in activities in the home and in the community provided them with satisfaction and happiness. Adaptations were fostered through problem-solving skills and via support from family and friends. The study highlighted the importance of motivation and support to facilitate participation in occupations in the home and community environments. Findings of the study supported that participation in occupations promoted health and wellness in addition to purpose and kept participants going, allowing them to achieve greater motivation and independence. All participants adapted to complete the activities they desired. The findings also supported research by Bambara et al. (2009) where family functioning played a huge role in providing support to those visually impaired. Through this study, it was observed that family members provided support by assisting their loved ones in everyday tasks and provided comfort during challenging times. Motivation and support were key facilitators in the adjustment and adaptation to living with visual loss. The participants did not experience a “shrinking” of their physical and social spaces and they did not fear environments they could not control. Support from family and

friends was crucial in the adaptation.

Ciamarolli et al. (2017) conducted a longitudinal study consisting of 364 older adults with significant vision impairment due to ARMD to examine personal characteristics, disease-related impairment variables, activity limitations, and environmental factors as correlates of social participation in older adults with vision loss. Globally, ARMD has been identified as one of the main causes of vision impairment. The most common negative consequences of ARMD and associated vision loss are increased functional disability and significant depression. This study was guided by the World Health Organization's International Classification of Functioning, Disability and Health Model. The setting took place in a community-based vision rehabilitation agency and involved in-person interviews assessing social participation and hypothesized correlates. A finding of the study indicated that vision impairment had a significant impact on older adults' ability to interact with their social environment and on their social participation where social participation represents an important element for successful aging as it correlates with quality of life and is a major focus of geriatric rehabilitation.

Social engagement among nursing home residents has been associated with cognition, comorbidity, and depression. Research conducted by Guthrie et al. (2018) reported that greater cognition was associated with greater socialization in nursing home residents. Positive health benefits have been linked to the presence of social interactions, including psychological well-being and decreased loneliness (Yeung et al., 2013) and that a lack of social engagement can have a negative impact on the health of nursing home residents (Kiely & Flacker, 2013).

A study was conducted by Petrovsky et al. (2019) to determine if there is a relationship between social engagement and sensory impairment (visual, hearing, or both) and between depression and cognition. They discovered that hearing and vision loss in nursing home residents

is often overlooked and not fully assessed. Sensory loss can lead to ineffective communication, decreased cognitive function, depression, functional decline, and falls. In addition, sensory loss can lead to an increase in behavioral symptoms as well as an increase in morbidity and mortality. Their guiding research question was “controlling for comorbidity, what is the relationship between social engagement, levels of sensory impairment in vision and hearing, depression and cognition in nursing home residents with sensory impairment?” In this study, 225 of 526 participants who met inclusion criteria were selected. Vision was assessed using the Early Treatment Diabetic Retinopathy Study, and hearing was measured with an audiometer to detect levels of impairment. Social engagement was measured using the Brief Assessment of Social Engagement, a 20-item self-report of positive social engagement activities (i.e., TV use, sharing a room, contact with family, religious activities). Cognition was measured using the Mini Mental Status Exam, a 30-item scale measuring orientation, attention, recall, and language, with lower scores equivalent to an increased level of cognitive impairment. Comorbidity was measured using the Cumulative Illness Rating Scale that rates 13 body systems with higher scores equating to higher comorbidity. Findings of the study demonstrated that there was no relationship between social engagement in nursing home residents with sensory impairments, but less depression, better cognition, and greater comorbidity were associated with greater social engagement. However, their findings contrasted with previous studies that found an association between social engagement and vision impairments in those with dementia (Kang, 2012). As a result, the researchers conducted a retrospective study and found that there were significant associations between residents’ social engagement, cognition, comorbidity, and depression levels, consistent with Kang’s findings. Baseline data were obtained from 213 participants selected from their previous Individualized Sensory Impairment for the Elderly study. They discovered that sensory-

impaired nursing home residents with increased cognitive impairment were less likely to be socially engaged compared to those with less impairment. In addition, there were higher levels of depression associated with lower levels of engagement; nursing home residents who were sad or depressed did not participate in group activities. The researchers concluded that residents with sensory impairment be monitored closely for decreased engagement and isolation, especially those with comorbidities, increased depression, and decreased cognition. They suggested that nursing home staff be proactive and provide activities that align with the residents' interests, modifying the environment as appropriate (noise, lighting, and furniture placement) and increasing the frequency of vision and hearing assessments as they may all have a positive effect on the social engagement, health, and well-being of nursing home residents.

A qualitative study by Magnus and Vik (2016) was conducted with a sample of 10 individuals aimed at exploring how older adults recently diagnosed with age-related vision loss experienced and re-adjusted to their new everyday lives. Although the participants were able to make necessary adaptations to their new everyday lives to be able to live independently in familiar environments, they feared that more extensive vision losses could result in the risk of dependency and problems in continuing to actively participate in society.

A descriptive phenomenological study was conducted by Laliberte Rudman et al. (2010) who described the core aspects of living with low vision in later life among older adults. The sample included 34 participants from urban and rural areas. Participants had not sought the use of rehabilitation services. Insights from the study reflected on how these older adults managed life while experiencing an enhanced sense of risk as well as shrinking physical and social life spaces, all with a desire to maintain independence.

A phenomenological study by Berger (2011) included collaboration with an optometrist

and an occupational therapist. It explored the lived experience of older adults with acquired vision loss to explore and capture the meaning of leisure for older adults with vision loss, since leisure activities often relate to one's overall health and well-being. The researcher discovered that almost half of older adults with vision loss experience some degree of difficulty in doing what they want to do in their daily lives. Diabetic retinopathy was noted to be one eye condition and was described by adults to have the greatest restriction with regards to leisure activities due to the vision loss associated with it. Engaging in leisure activities can be associated with decreased mortality and delay in the onset of cognitive deficits. Leisure has been found to contribute to successful aging and increased quality of life for older adults, especially those who may have an illness or disability. Changes in vision often eliminates individuals in their involvement or choice in participating in activities due to the loss. Understanding why one chooses to participate in leisure and the meaning behind the leisure activity can assist in identifying and pursuing other activities to achieve their desired goals or meaning. A purposeful sample for this study ( $N = 26$ ) included participants over the age of 70 whose best corrected visual acuity was 20/70 or worse in both eyes and met basic screening criteria including age, visual acuity, and length of time since diagnosis. Additional criteria for the study were that the participant reported no significant health problems, had vision loss for more than two years, lived in an urban area, spoke and understood English, and was willing to engage in interviews as well as a researcher observation. Three themes emerged from the interviews pertaining to the meaning of leisure: "a shift in relationship due to vision loss; influence of vision loss on use of time; and achieving meaning through leisure" (Berger, 2011, p. 195). Shifts in relationship were related to struggles with vision loss, such as maintaining and expanding social relationships, staying current and socially connected, and limited reciprocal relationships. The influence on vision loss



revealed that many gave up on activities they enjoyed the most because participating in them took them more effort and became less fun (i.e., traveling, watching TV, listening to the radio). They also stated that access to transportation was difficult, as they were not able to get out as much. Achieving meaning revealed that it was not necessarily the activity that mattered but the meaning around the activity as it allowed for socialization and a connectedness to others. The participants shared that the activity was more about the pleasure it brought to others. The study concluded that older adults with vision loss participate in fewer social, physical, and mental activities and, as a result, cognitive ability diminishes as well. In addition, engaging in activities was important to health and overall well-being. However, engaging in activities was not only a challenge and less enjoyable, but it took up a lot of time and energy. Berger concluded that a challenge exists to explore effective interventions while discovering new ways to make activities easier and meaningful, thus increasing socialization.

A qualitative study was conducted by Laliberte Rudman et al. (2016) in two Canadian sites (one in a large metropolitan city and the other in a smaller city) with a sample of 21 participants. A grounded theory approach guided the study, which consisted of interviews exploring everyday functioning and social participation. Questions were asked about the activities each participated in both inside and outside the home, how they interacted with others, when the activities took place, and with whom and how their lives had changed as vision loss progressed. The biggest concern discovered appeared to be negotiating the environment. Items specifically included mobility options, physical environment, social environment barriers, and informal support services. Mobility options presented a barrier to be independent, as options to get around were often limited. Many of the participants did not have access to public transportation if they were unable to drive or have a driver accompany them. Community

resources were not always nearby. Navigating the physical environment depended on their mobility, history of falling, or the fear of falling—these all impacted on their independence if they lived alone. Risks for falling were a common factor in social participation. A common theme often mentioned was having the ability to safely navigate surfaces, uneven curbs, inadequately maintained walking surfaces, stairs, and escalators. Social environmental barriers can influence one's skills and ability to recognize others and manage situations while attempting to manage risks and their social image.

Participants discussed fears of being embarrassed, socially misunderstood, or being treated differently. Many participants needed to rely on other sources of social support to complete necessary community-based activities, which made them feel like a nuisance, embarrassed, dependent, and burdensome. The study concluded that efforts to enhance social participation of older adults with vision loss must extend beyond individual-level interventions and into societal and advocacy efforts addressing social and environmental barriers.

### **Vision Impairment and Social Isolation**

A study conducted by Coyle et al. (2017) was to differentiate self-reported vision impairment as well as clinically assess visual acuity and its risk of social isolation. According to the researchers, vision impairment may contribute to isolation in many ways. They discovered in their review of the literature that an association exists between vision impairment and the ability of older adults to function in their own communities. Vision impairment in later life is strongly related to functional decline and physical disability. Social isolation is a risk factor that can lead to negative health care outcomes and an increase in institutionalization, falls, and mortality. Vision impairment often limits the participation in activities such as watching TV, driving, and dialing a phone. The risk of isolation increases with age, loss of a network member to death or

relocation, the onset of chronic illness or functional decline, disability, and dispersion of family. Older women are at a greater risk because they live longer than men and often outlive their spouses and other members of their social network (i.e., friends and family). Being single is a strong predictor of isolation. Both vision and hearing may interrupt with communication in older adults and can lead to isolation over time, as many withdraw from social settings and relationships. Impairments in mobility can result from vision impairment and can limit the extent to which one can leave the home and socialize with others. Good vision is a prerequisite to driving, which is one major way to allow someone to socialize and engage with others. If driving is no longer an option, it may limit one's ability to interact socially, which can shrink social networks because it reduces access to family and friends.

The sample for Coyle et al.'s (2017) study consisted of 8,806 adults 60 years of age or older who had risk factors such as demographic traits, pathology impairments and a loss of functioning, and difficulty in performance of routine and ADL. The data from the sample came from combining five cycles of a National Health and Nutrition Examination Study, which is a nationally representative, cross-sectional sample of a non-institutionalized population age two and above. The study revealed that individuals with self-reported vision impairment were more at risk for social isolation due to having inadequate social support. However, those who maintained their ability to be successful in social settings were likely correlated with positive perceptions of visual status while those with a poorer perception of vision status inhibited them from engaging socially.

A quantitative study by Vucinic et al. (2020) was conducted on a sample of 160 people, with 126 participants responding. The purpose of the study was to determine the extent to which adults with visual impairment engage in leisure activities and the quality of that engagement.

Participants included both genders, with women comprising 51% with an age span of 19 to 60 years of age (only one participant in this study fell within that range). Most participants lived with parents ( $n = 59$  or 46.8%) while 26 (20.6%) lived alone. Congenital visual impairment was present in 79 participants (62.7%), while 47 had an acquired visual impairment (impairment over time). This study revealed that the form and frequency of leisure activities change as one gets older. Ninety percent of adults with visual impairment participate in some form of leisure, with 69% of those in art and culture-related activities. Those activities consisted of listening to music, watching television, and reading, which do not require a considerable amount of effort or movement.

According to the researchers, adults with visual impairment rarely get involved in activities outside of the home and communities where there is no attendance at social events or with visiting friends since they usually rely on family and friends to provide transport. In addition, poorly organized transport and architectural barriers in the environment play a role, even with those who are independent in mobility. Many adults pointed out that their social life is affected by financial constraints. The researchers found that only a small number of adults with visual impairment take part in sports and recognized that physical fitness decreases quickly with age. Data for this survey were obtained from the leisure subset of the Adaptive Behavior Assessment System II. This instrument was validated via a Cronbach's alpha reliability coefficient of .760. The subset consisted of 23 items that referred to the acquisition and usage of skills needed for planning and participating in leisure activities. Each item allowed the participant to select from answers on a 4-point scale. Participants were informed of the content of the assessment. The subset answers were obtained via interview where the statements were read aloud with answers recorded, since the document was inaccessible for the participants due to

their impairment.

Results of the study revealed that older adults with visual impairment prefer to take part in informal activities than organized ones and that vision status and level of information about visual impairment and living arrangements were statistically significant factors for leisure time. A statistically significant relationship was detected between standard scores on the subset regarding vision status, information about visual impairment, and living arrangement of those living alone versus those who were married.

### **Impaired Vision and COVID-19**

Social isolation and loneliness are common concerns in the older population, especially for those who live in LTC, with an estimated range of 33% to 72% affected. As a result of this isolation, consequences affecting mental health, such as depression, anxiety, and cognitive decline are recognized (van Dyck et al., 2020). To date, activities offered in LTC facilities addressing social isolation such as games and outings, have had limited benefit (Theurer et al., 2015). As a result of the COVID-19 pandemic, social isolation has significantly increased (Simard & Volicer, 2020). Residents may be secluded in their rooms and unable to participate in communal gatherings such as meals and recreational programs. For those with a visual impairment, being able to connect and engage with others outside of their room in a familiar environment or to connect with those outside of the facility (i.e., use of phone or unfamiliar technology) became a challenge as contact with staff and visitors has been lessened or non-existent due to state and governmental restrictions. Recognizing this, an outreach program from the Yale School of Medicine Geriatrics Student Interest Group created and implemented a telephone outreach in the COVID-19 Outbreak Program. This group aimed to alleviate the isolation suffered by older adults through weekly friendly phone calls with student volunteers.

Partnerships were formed with three local nursing homes in New Haven, Connecticut. Recruitment for participants was initially difficult, as the responsibilities of facility administrative staff shifted due to the pandemic. As a result, the student volunteer group made connections with facility recreation directors. The sample of participants identified was based on inclusion criteria and assistance from the recreation director. To participate in the group, the student volunteers were required to be available for weekly telephone calls to the participant. The duration of the phone calls was expected to last at least 30 minutes and a landline phone was used. Initial reports from the nursing home recreation directors and student volunteers were positive. The residents benefited from the meaningful conversations with their volunteer companions. Stories about the lives of both student volunteer and participant were discussed and relationships were established. The student volunteers identified challenges to their residents as many expressed restlessness, anxiety, and fearfulness as the pandemic continues and how it may affect their facility. The students identified a lack of technology (internet and computer availability was limited) as their residents tried to communicate with loved ones. Visual and hearing impairments made it difficult to set up initial phone calls. In both cases, the recreation director was helpful in resolving those issues. As a result of the program, the residents looked forward to their weekly phone calls and felt gratitude for the companionship during this difficult time. The initial success of the program was encouraging, and the goal was to include more facilities.

To date, 10 facilities have adopted the program with positive results in minimizing isolation because of the pandemic. The group is expecting to collect qualitative data soon, based on conversations with both volunteers and participants, to determine the impact of the program as the volunteers take on the role of advocate on behalf of the participants (van Dyck et al.,

2020).

### **Vision Impairment and Stereotyping**

According to Kent (1989), literary references related to blindness showed that a lack of sight was always perceived in a negative light. Commonly held beliefs about blindness exist, often reflecting the literary image that the blind are helpless, miserable, and set apart from the general population. They have often been thought to have more in common with those like themselves and less in common with anyone else.

In a phenomenological qualitative study conducted in Montreal, Canada, by Fraser et al. (2019), the researchers set out to describe and clarify factors that influence participation in social activities among older adults living in the community with vision loss. They discovered that in Western cultures, the media often portray those with impairments and disabilities as sick, helpless, and in pain. Chronic health conditions (age related or not) are often stigmatized and learned at a young age due to sociocultural conditioning. Those with a visual impairment may come to expect discrimination. The study was set to illustrate and comprehend the elements that are attributed to the social participation of older persons with vision loss, providing “a more holistic understanding that considers the person, the impairment and the environment promoting health and well-being of older adults with vision loss” (Fraser et al., 2019, p. 3). The research consisted of three central research questions: What enabled you to access low-vision rehabilitation services? What served as obstacles to you accessing low-vision rehabilitation services? And what could be done to make it easier to access low-vision rehabilitation services? The study consisted of a sample of 21 individuals between the ages of 38 and 92 who either did or did not seek low-vision services, with the goal of identifying the presence or lack of rehabilitation access. Six focus groups were formed, with the sample coming from

ophthalmology department waiting rooms from four university-affiliated hospitals in Montreal and with sessions held in a private hospital room (Overbury & Wittich, 2011). The groups selected were heterogenous, where differences in perspectives on the barriers could be identified for similarities and differences. Participants in each focus group spent approximately 60 to 90 minutes with field notes taken by the researcher. Identifying information about the participants was shielded to assure anonymity, and pseudonyms were assigned to each. The framework chosen for this study was the ICF International Classification of Functioning Disability and Health from the World Health Organization.

The participants spoke of the challenges they were confronted with, especially when engaging with those who had normal vision. During the discussions with the different focus groups, the researchers used an interview guide that was modified to capture any barriers identified. Methodology for this study included audiotaping and verbatim transcribing of data, where an analysis of that data was then conducted. Content analysis revealed personal and environmental factors that affected social participation. From the data analysis, four themes emerged: experiencing the onset of impairment and its degenerating ability, the physical environment, attitudes and responses from others, and individual internal attitude and responses during social interactions. Barriers that existed with social participation included a lived and perceived stigma from the perspective of the insider (one with low vision) interacting with an outsider (one without low vision) and the different environmental contexts that described the barriers influencing social participation and optimal functioning. Their findings highlighted the importance of stigma and stereotyping in the lived experience of those adults with low vision, thus supporting the need for strategies to reduce stigma and eventually facilitating the social participation of this group. Visual impairment research allowed the researchers to pay more



attention to the insider perspectives (the ones with visual impairment), but this perspective is still not well represented in the peer-reviewed literature, which is vital in the context of identifying and mitigating stigma.

### **Barriers of Visual Impairment**

According to Fraser et al. (2019), the physical environment has an impact on those with vision impairment, specifically how the public environment is constructed. In their study, the participants described barriers they faced. This included how public transportation was created and the placement and construction of streets, sidewalks, buses, and subways. Other barriers identified were the design of public spaces such as the placement of elevators, grocery stores, banks, pharmacies, restaurants, recreational centers, and exits/entrances to buildings. Because of these barriers, many feared leaving home due to those challenges and felt safer being at home. Some were afraid to go out for fear that they may not have been able to find a restroom if they needed one. Others felt the need to be dependent on others, especially if driving was involved. As a result of these barriers, social isolation was identified as negatively affecting one's health.

### **Visual Impairment and Adaptation of Older Adults to Different Settings**

In 2014, a quantitative longitudinal study was conducted by Wittich et al. (2014) in a Canadian Adult Day Center. The goal was to maintain or improve the well-being of its clients' biological, psychological, and social health by providing respite for caregivers and minimizing institutionalization to LTC settings. The objective of the study was to focus on aging in place at home and remaining as independent as possible. This study consisted of 30 participants aged 71 to 98 over a one-year period. Comorbid conditions of the participants included high blood pressure, asthma, cardiac issues, diabetes, stroke arthritis, and osteoporosis. Participants were evaluated for visual acuity and no-light perception at intake initially and again at 6 and 12

months. Participants were given a Visual Function Questionnaire (consisting of 14 items), a Hearing Handicap Inventory for the Elderly, a Geriatric Depression Scale, a Friendship Scale, a Timed Up and Go Test, and a Montreal Cognitive Assessment. In all, 19 participants completed the 1-year follow-up and continued to live independently in the community 12 months after entering the day care center. One person was transferred into LTC. Participants reported unchanged scores on all the measures except for improved cognitive scores with  $p < .05$ . The increase in cognitive scores was most likely attributed to practice and decreased test anxiety, with the participant having completed the assessment on more than one occasion. The researchers concluded that participation in adapted day center activities, as an integrated part of rehabilitation services, may support independent living in older adults with vision loss while preventing a decline in overall well-being.

In a study conducted by Deshpande et al. (2017) in 2010–2011, participants with low vision were examined to determine if low-vision interventions had a positive impact on quality of life, as individuals with low vision lean toward being depressed due to poor quality of life as a result of poor vision. The sample size of this population included 67 low-vision participants over the age of 16 attending an eye clinic in a hospital in India. Two ophthalmologists and two optometrists were identified as the field staff. Demographic information, visual acuity, visual function, and a detailed ocular exam was considered baseline information. Appropriate optical and non-optical aids were provided only if there was a demonstrated improvement in visual function. Pre-interventions and post-interventions were compared to determine effectiveness. Those in the study were trained on the use of the aids, and an explanation of the interventions was given to them and to their relatives. Illumination and environmental modifications were recommended to enhance their working abilities. Of the 67 participants, 7 were lost due to their

lack of follow-up, 75% of the participants were male, and of that group, 2 were able to read braille. Congenital visual disabilities were noted in 8 participants, with 59 noted to have an acquired vision loss. Congenital neurological diseases were the principal causes of 4 participants, with retinal pathologies observed in 40 participants for acquired vision loss. The status of distance vision and near vision of low-vision participants were obtained at the time of presentation and again six months later. Interventions chosen to improve low vision consisted of optical aids with spectacle-mounted telescopes, stand magnifiers, and magnifying spectacles. Non-optical aids included illuminated night tables/lamps, pocket torches, and tinted glasses to reduce photophobia. The table lamp was the most common non-optical device accepted by over 50% of the participants.

Quality of life significantly improved ( $< .001$ ) after using low-vision services. Of the participants, 65% had no difficulty with indoor and outdoor activities after low-vision services. Difficulties in reading, writing, and participation in ADLs reduced as did emotional stress. In summary, the study concluded that low-vision services had a positive impact on the quality of life among young adults with low-vision disabilities in Western India. Those with low vision showed an increase in the ability to read a newspaper with larger sized print, and many who were forced to stop working because of their visual disabilities were able to return to work. The researchers concluded that one such area that needs to be further explored is the impact of depression following low-vision services as an associated behavior between depression and reduction in ADLs due to low-vision loss.

A study conducted in the United States determined the impact of low-vision services. Of the participants studied, 98% ( $N = 150$  patients with a mean age of 72) experienced subjective improvement. The participants stated that low-vision services seemed to be very useful (Scott et

al., 1999).

### **Vision Impairment and Falls**

Approximately one-third of older adults living in the typical community fall each year, with a rate much higher among nursing home residents. Those with a vision impairment fall as much as two to three times more than those who do not (Kingston, 2018; Lach et al., 2018). In LTC, 50% to 75% of all residents fall annually, twice the rate of falls for community-dwelling older adults (Willy & Osterberg, 2014). Many falls are underreported (i.e., resident does not report due to embarrassment), which makes the average even higher (Medcom, 2016). Fall assessments and fall-prevention programs have been implemented in LTC facilities to determine fall risks (Kingston, 2018). The interdisciplinary team often begins the process of fall prevention before a fall occurs, which is generally at the time of admission and then as necessary. A multifaceted risk assessment is essential, as many potential falls might be related to a history of falling, medication use, cardiac conditions, and other medical conditions, including osteoporosis, urinary incontinence, and uncontrolled pain. In addition to a risk assessment, a comprehensive assessment may also be performed. This assessment evaluates mobility, joint function, cognitive and neurological function, and visual acuity (Willy & Osterberg, 2014). Visual assessment is an integral component of a falls risk work-up. The increased prevalence of conditions that lessen visual acuity can predispose an older adult to fall. Reduced visual acuity may cause tripping, mis-stepping, and walking into objects, as the aging process reduces depth perception (Feinsod et al., 2005). While many studies stress the importance of vision screening and acknowledge the relationship between falls and vision impairment, interventions to help reduce falls within facilities (suggested in a falls-prevention program) due to a vision impairment are limited. Except for vision rehabilitation, there is no standard fall-risk intervention for people with a visual

impairment (Kingston, 2018).

Physical consequences of falling, with one of the most serious being a hip fracture, leads to increased mortality, with a decrease in overall function. Those who have not fallen express concerns that the possibility of a reduction in physical and social activities exist, resulting in isolation, a decrease in quality of life, and overall functional decline. Avoidance of self-care activities, resistance in transfers or mobility tasks, and reduced participation in social activities are red flags to fear of falling. Sensory impairment in the older adult has been connected to falls or the fear of falls, with visual deficits as a significant contributor. Self-reported poor vision was associated with the fear of falling and fall-related activity restriction (Lach et al., 2018).

Fear of falling can cause disability in nursing home residents and is often associated with vision, hearing, or dual-sensory impairment. In a quantitative study conducted by Lach et al. (2018), a sample of 225 participants with vision, hearing, or dual-sensory impairment were selected from seven nursing homes. The study was conducted to establish whether or not a relationship existed between the fear of falling and sensory-impaired nursing home residents. The study concluded that 51% of the residents had a fear of falling. Their findings recognized that there are implications to practice in nursing home settings, as the fear of falling continues to be associated with negative outcomes in nursing home residents. The residents with fear had lower yet non-significant activity levels than those who did not. The role of nursing home staff in encouraging versus restricting activity, while addressing residents' fears, needs to be explored as staff expressed concerns about falls and may encourage activity restriction. The researchers suggested that further research is needed to determine the best approaches to improve function, address the fear of falling, and incorporate activities that decrease disability. They concluded that maintaining appropriate activities and exercise to maintain strength can improve the engagement

of those affected with others in meaningful activity.

### **Chapter Summary**

The literature review reveals that vision, leisure, and recreation are important aspects in living a pleasurable life. A visual impairment can affect mood and self-care activities that are often taken for granted. Visual impairments in older adults may hinder their ability to socialize, leading to isolation; fear from venturing out of their comfort zone; a loss of self-image, self-esteem, and self-concept, which results in hopelessness, physical and cognitive decline, and a loss of independence. Research has identified issues related to stigma, embarrassment, feelings of being a nuisance or burden, loneliness, depression, fear of falling, and a hesitancy to ask for help. Rehabilitative services have been successful in assisting the visually impaired adult engage in pleasurable activities. A gap exists in how nursing identifies any challenges faced by the older adult with a visual impairment living in LTC. By recognizing these challenges, nursing can identify strategies to assist older adults to problem-solve, adjust, and adapt to their vision loss.

## **Chapter 3: Method**

### **Chapter Introduction**

This chapter offers a description of the design, method, and philosophical perspectives for this dissertation. It describes the recruitment of the population sample, demographics, human subject considerations, rigor and trustworthiness, and personal bias. In addition, data collection and data analysis are discussed.

### **Design and Method**

For this study, a qualitative phenomenological design was guided by the approach of Heideggerian hermeneutics to capture the essence of the lived experience of older adults and their integration and adaptation into recreational and social activities in the LTC setting. Phenomenology is based on a retrospective reflection—reflection on an experience that is already lived through. According to Creswell (2013), a phenomenological study describes the meaning for several individuals of their lived experiences of a concept or a phenomenon. The phenomenological approach is to suspend all judgments about what is real until it is revealed as described by the individuals experiencing the phenomena (Creswell, 2013).

Heidegger's hermeneutic phenomenology is concerned with the human existence as it is lived. The lived experience is a central methodological component of the phenomenological method that aims to provide concrete insights into the qualitative meanings of phenomena in people's lives (van Manen, 1997). Heidegger advocated for the utilization of hermeneutics as founded on the ontological view and said that the primary phenomenon is that the lived experience is an interpretive process where consciousness is not separate from the world of human existence (Heidegger, 1962; Wu et al., 2010).

In Heidegger's approach, individuals can share their experiences in an uncontaminated

way (Heidegger, 1962; Wu et al., 2010). These experiences may be similar, or they may be different. Among the individuals studied, there may be more than one viewpoint, more than one experience, and more than one truth, as each participant's experience is unique to him or her.

Hermeneutic phenomenology is attending to other people's experiences and reflections to better understand the deeper meaning of a specific human phenomenon within the context of the whole human experience. This approach requires researchers to acknowledge their own past experiences and existing knowledge, which is essential to the interpretive process. It allows the researcher to openly reflect on, share, and attend to one's subjectivity during data collection and analysis. The researcher is embedded in the process that allows a deep connection to be made to the participant's life experience (Heidegger, 1962; Wu et al., 2010).

Phenomenology is empirical-based experience. It cannot be used to show or prove. It does not problem-solve (van Manen, 1997). Rather, it provides understanding of the lived-through experience (descriptive) and the description of the lived-through experience through (hermeneutic). Insights were gained into the participants' experiences through interviewing, investigating, and describing those experiences in such a way as it allowed the individuals to express their own lived experience.

The phenomenon of older adults living with a visual impairment and their integration into recreational and social activities was focused on discovering what participants were seeing, feeling, and experiencing to understand what the phenomenon was for these participants and any barriers and/or challenges they faced. Therefore, phenomenology was an ideal fit for this study, as the lived experience of residents with vision loss in LTC facilities had not been clearly described in the literature.



## **Recruitment/Population Sample**

The participants selected were based on a purposive sample recruited through personal and professional connections. Purposive sampling involved a “purposeful” selection of participants representing those who had a lived experience of the same phenomenon (Creswell & Poth, 2018). Participants who are living the experience of the phenomenon of interest (older adults with a visual impairment living in LTC) were selected. Institutional Review Board (IRB) approval from Molloy College was granted before any recruitment began (see Appendix A). Recruitment continued until data saturation was reached. Recruiting participants began with the researcher sending a letter to administrators of local Long Island, New York, LTC facilities (including for-profit and non-profit facilities) discussing the proposed research and requesting for permission to conduct the research in their facilities (see Appendix B). The IRB-approved flyer (see Appendix C) about the proposed research was also included. To facilitate the recruitment process, the flyer was hand-delivered to participants by the administrator or designee (i.e., Recreation Director, Social Worker) who expressed an interest and who met the inclusion criteria. The researcher relied on those facility professionals to ascertain the capacity of the participant, as they had knowledge of the participants’ basic cognitive ability to participate and be interviewed. Using extensive experience working with this population, the researcher was also able to determine the participant’s capacity to be in the study at the initial contact (a letter explained the study; see Appendix D). Informed consent was obtained from interested participants who met the inclusion criteria by the researcher according to IRB policy (see Appendix E).

Inclusion criteria consisted of those who were English speaking, had capacity and ability to articulate, any gender, any ethnicity, age  $\geq 60$ , diagnosed with a visual impairment, and who

transitioned to a LTC setting. Exclusion criteria consisted of those who were non-English speaking, age < 60, are hearing impaired, and did not have the capacity to be interviewed or participate. In context with the pandemic environment and concern for participant safety, all participants and the researcher were vaccinated in adherence to current vaccination guidelines.

### **Data Collection**

For a phenomenological study, the process of collecting information primarily involved conducting in-depth interviews, often more than one, with each of the participants. For this study, data collection consisted of an interview (lasting approximately 30 to 60 minutes) conducted face to face in person (as per waiver included in the Molloy College IRB requirements for this study) or via telephone of selected participants from a LTC setting(s). The sample was selected based on inclusion criteria (resulting with a sample size of  $N = 17$ ). The final number depended on saturation of data consistent with qualitative research designs. The interview consisted of select open-ended questions, including the main research question and other follow-up questions if necessary. The option of in-person interviews was permitted as allowed by institutional policy and Molloy IRB. The interviews were voice-recorded and transcribed verbatim. A copy of the transcript was offered to them if they so desired (one person requested a copy). The audio tapes were transcribed by a professional transcription service. Field notes were written, and observations were made. Field notes allowed the researcher to record witnessed events by describing how people reacted to a situation and writing a note or vignette to account for what they said. Field notes allowed one to describe who was there, what was happening, when it happened, where it happened, and why it happened (Terrell, 2016). In addition to field notes, an optional follow-up interview of about 30 minutes was conducted with 5 of 17 participants.

## **Demographics**

After receiving the signed consent form, the researcher asked about and collected basic demographic data of the participants. This included age, gender, ethnicity, marital status, number of children, highest level of education, occupation, visual impairment diagnosis, age of onset of visual impairment, other health diagnoses, length of time at the new facility, and frequency of visits by friends and/or family (see Appendix F).

## **Data Analysis**

Data collection, analysis, and management strategies were used in congruence with the approach taken by van Manen (1990). This approach was influenced by Heidegger's interpretive phenomenology, which was to understand the essence of the lived experience. According to van Manen, phenomenology aims at gaining a deep understanding of the nature and meaning of everyday experiences. Phenomenology is based on a retrospective reflection. It is an attempt to uncover and describe the structures of the lived experience. It attempts to clarify meanings as we live them in our everyday existence. This approach consisted of six methodological activities with guidelines for the entire process of data collection and analysis to discover the fundamental structure of phenomena, which is the lived experience of older adults with visual impairments. Data collection and analysis are not linear. For the purpose of clarity in this study, the data collection included clear, logical, and sequential steps, thus increasing the reliability and dependability of the results obtained when analyzing the data.

Step 1 was turning to the nature of the lived experience. This began with the identification of the phenomenon of concern (the lived experience of the older adult with a visual impairment), the problem statement, the purpose of the study, and the formulation of the research question. The research question allowed the participants to fully describe in their own words

their unique lived experience. The main question was frequently reviewed to assure that the experience told to the researcher synchronized with the primary question. A script was developed (see Appendix G) to introduce the participants to the study. Follow-up questions were used as needed. The research question allowed the participant to begin to share information with little interruption from the researcher (Molley et al., 2018; van Manen, 1997).

Step 2 consisted of an investigation of the experience as it is lived, which was captured through interviews. The interview allowed participants to describe their own unique lived experience and consisted of open-ended questions that were audio-recorded. Following the completion of each interview, the researcher utilized a transcription of the data, which helped by reading, re-reading, and reflecting on what the participants said and how they were saying it. To assure congruency of the data, the researcher frequently checked the accuracy of the data against the audio recordings while simultaneously reading the transcript. This process allowed the researcher to engage with and reflect on the text, allowing for more exploration and clarification if necessary. Follow-up contact was obtained with five willing participants who validated their transcripts and verified the study findings.

Step 3 reflected on the essential themes that characterized and described the phenomenon (van Manen, 1997). The researcher sought out the overall meaning of the participant's experience and reflected on concepts and themes. This was accomplished by repeatedly listening to the recordings, re-reading the transcripts, and reflecting on the texts where all essential statements relating to the phenomenon were extracted. These extracted statements were coded and clustered via NVIVO 12® into groups where themes from the rich data emerged as it was analyzed. As themes were recognized and described, they were checked against the interview transcripts to identify any commonalities and/or differences. This was done to ensure that they

reflected the essence of the phenomenon of interest (Molley et al., 2018).

Step 4 described the phenomenon in the art of writing and re-writing throughout the research process (van Manen, 1997). Through this process, the researcher's intention made visible in words and sentences the descriptions of the feelings, thoughts, and attitudes of the participants. Participant quotes and themes gleaned from the transcripts were reviewed to assure that the phenomenon of interest had been captured. Journaling with written field notes allowed the researcher to reflect upon the rich data collected, assuring that the essence of the experience was truly captured.

Step 5 maintained a strong relation to the phenomenon (van Manen, 1997). It is here where the researcher strived to remain focused on the research question. Transcribed statements were reviewed, referred to, and reflected upon to assure that the essence of what was said was truly depicted through words and descriptions; that it was unique and valid. The transcribed words and statements revealed the rich details of the experience as it had been lived. The reflective process allowed the researcher to gain insight into the described phenomenon, which ensured that the essential meaning of the phenomenon was maintained.

Step 6 balanced the research context by considering the parts and the whole. The researcher constantly measured the overall design of the study and the text against the significance that the parts played in the total textual structure (van Manen, 1997). The researcher removed statements to see if the essence of the phenomenon was still revealed and the essence of the theme remained. This step involved writing and re-writing until all the themes (parts) and the relationship between the themes (whole) were depicted and captured as accurately as possible to express the experience the participants had with vision loss and integration into social and recreational programs (van Manen, 1997). Field notes, a journal, and memos were used as part of

the analysis.

### **Human Subject Considerations**

Approval for this study was sought from Molloy College's IRB and from four data-collection sites: two LTC skilled-care facilities and two assisted-living facilities (ALF). The Collaborative Institutional Training Initiative training (a basic course in the protection of human subjects) was completed by the researcher prior to IRB approval. The participants for this research activity were informed as to how their rights as a human subject in this activity would be protected as approved by the Molloy College IRB. Participants were fully informed about the study by the researcher and consent was obtained prior to any data collection. In addition, brief demographic data were collected prior to the interview. They were informed that their involvement in the activity would consist of an interview with select questions asked, including the main research question, grand tour question, and other follow-up questions if necessary (see Appendix G), lasting approximately 30 to 60 minutes, and that a copy of the transcribed interview would be provided (and maybe even read) to them for accuracy and validation of their statements if they so desired. Permission to audiotape the interview and to transcribe the data using an outside agency was obtained (see Appendix H). The participants were given the opportunity to agree to be a part of the study if the inclusion criteria were met. They were informed that their participation was voluntary. If criteria were met, consent (verbal and/or written) was obtained. Written consent was obtained from those who were interviewed face to face ( $N = 16$ ). Verbal consent was obtained by one participant who was interviewed via telephone. A copy of the consent form was mailed to the participant for a written signature, which was mailed back to the researcher. Participants were informed they could withdraw from the activity at any time without punitive action and that their care in the facility would not be

impacted by their agreement to participate or not (none chose to withdraw). The participants were informed that while it is not possible to identify all potential risks in research, reasonable safeguards would be taken to minimize known risks. If an uncomfortable memory triggered a physical or psychological response, the interview would stop (none experienced these issues). Participants were informed that although there would be no direct benefit to them, the findings might provide insights helpful in influencing changes in health care practices and programs.

It is the ethical obligation of the researcher to protect participants and their identities. An explanation was provided on how the participants' confidentiality, as per IRB policy, would be maintained, as the researcher who conducted the interviews would be in full receipt of them. Each participant was informed that interview data, field notes and voice recordings, and transcriptions of those interviews would be kept confidential, with access available to the researcher only. In addition, any field notes or memos taken by the researcher would be held in strict confidence. A pseudonym was assigned to maintain anonymity.

An optional follow-up interview of about 30 minutes was conducted with 5 of the 17 participants. This follow-up offered the participants a chance to review the researcher's understanding of the initial interview. It also provided the participants an opportunity to expand on that understanding, offer new insights, or even disagree. At the completion of the interview(s), a single Amazon gift card of \$25 was provided to all participants so they can redeem it online with a vendor of their choice.

### **Rigor and Trustworthiness**

In qualitative research, establishing rigor and trustworthiness is very important. The overall goal of qualitative research is that it must demonstrate confidence. Establishing rigor and trustworthiness is determined by assuring criteria such as credibility, dependability,

confirmability, transferability, and authenticity. How data is collected and analyzed must be through a genuine process of determining reliability, auditability, and rigor of the study (Polit & Beck, 2017).

Credibility was demonstrated through the researcher's accuracy of documented statements via interviews, journaling, field notes, member checking, opinions, and explanation of any potential bias. Member checking was done via deliberate questioning during the interview and in any follow-up interviews to ensure that the participants' statements were accurate and understood. Member checking allowed the participant to add to or clarify the already existing data as believability and credibility was essential. Dependability refers to the stability of the data over time. This was demonstrated by careful documentation, continued member checking, and triangulation of the data.

Confirmability is defined by being objective and not permitting the beliefs or opinions of the researcher to influence the data. Confirmability allows for the data collected to truly represent the voices of the participants via their statements and the information provided. Confirmability was achieved through participants validating the study's findings.

Transferability relates to the potential of having the research findings applied to other settings or groups. The researcher provided ample descriptive data so that other investigators would be able to determine the applicability of the data to other studies. The last criterion is authenticity, which results when the data and themes truly express a tone of the lives that the participants have lived. The researcher achieved authenticity by documenting and reviewing comprehensive field notes, journal entries, attaining data saturation, and searching for confirming evidence that provided rich and vivid data about the lived experience. Participants were asked to confirm the essence of the phenomena via member checking. Records of interview transcripts,



data reduction, field notes, reflective notes, and drafts of the final report were maintained to enhance auditability.

### **Personal Bias**

Since the researcher is the research instrument, it is necessary to describe assumptions and possible biases. Due to the researcher's personal experience working as a nurse administrator in LTC and having a "connection" to the resident population, the researcher brought certain preconceived notions about the lack of modification of leisure and recreational activities among older adults with a visual impairment and a lack of a thorough visual assessment either at the time of admission or after a fall. These assumptions were held aside during data collection and analysis. The researcher believed that adaptation and breaking down any identified barriers to promote quality of life are an essential part of nursing. The long-term significance and the researcher's interest in doing this study was that knowledge of any identified barriers, facilitators, and adaptations may foster changes in activity processes leading to increased participation and socialization in recreational and leisure activities, thus contributing to positive resident outcomes and quality of life. The researcher continually debriefed with the dissertation committee on the data collected and the validation by participants in the identification of the essence of the phenomena to assure reliability and trustworthiness of this study. This process allowed for the prevention of the researcher's beliefs, biases, and previous experience from influencing the findings.

### **Chapter Summary**

The purpose of this hermeneutic phenomenological study was to explore the lived experience of older adults with visual impairments and their integration into social and recreational activities in the LTC setting. Once Molloy College IRB approval was granted and

consents were obtained, semi-structured interviews with main and follow-up questions were conducted with participants. Interviews were conducted face-to-face in person and by telephone. In the analysis, van Manen's six procedural steps encompassed the entire process in capturing the essence of the phenomena being studied. Little was known about how nursing identifies possible barriers, adaptations, or facilitators in older adults with visual impairments and their integration into social and recreational activities in the LTC facility. These findings provided a deeper understanding of potential issues related to resident experiences when vision impaired and living in a LTC facility. Such knowledge offered guidance to nursing on how to assist residents' adjustment and improve their quality of life.

## **Chapter Four: Results**

### **Chapter Introduction**

This chapter provides an overview of the descriptive demographics of the participants interviewed for this study. Participant were asked to provide a pseudonym of their choice to assure that confidentiality was maintained. A detailed description of the participants introduces the reader to their individual characteristics and provides an illustration of each participant for the reader as perceived by the researcher. The process for recruitment, data collection, and data analysis are described. The chapter concludes with the exploration of emergent themes derived through the use of significant statements extracted from the transcribed interviews.

### **Study Sample**

This study included 17 participants (12 women and 5 men) interviewed from LTC facilities (two skilled nursing home facilities and two ALF). Their ages ranged from 69 to 100 years old. Six were life-long unmarried, seven were widowed, and four were still married. Fourteen identified as White non-Hispanic, one identified as White-Hispanic, and two identified as Asian. Their education ranged from high school to college graduates, including associate, baccalaureate, and/or master's degree levels. Their prior professional positions included office and technical work in addition to roles in administration, education, social work, religious orders, and volunteering. All participants had a vision loss in addition to other medical conditions.

Recruitment for this study was initiated after IRB approval from Molloy College in May 2021. Recruitment was initiated by the researcher with personal connections and professional colleagues working in the LTC environment. This included two LTC skilled facilities and two ALF. A face-to-face interview was conducted with the facility representative for each of the two LTC skilled facilities. Each agreed to participate and both parties were provided with a copy of

the study abstract, informed consent (an approval letter to conduct research in the LTC facility), statement to participants, and the study advertisement. Both parties signed the letter to conduct research in their facility. For those participants residing in the ALF, the researcher contacted a known representative in each facility via telephone. The researcher delivered the study flyer to those representatives. They distributed the flyers to those who met the inclusion criteria or who they personally recommended for the study. The individual participant directly contacted the researcher.

Of the two LTC-skilled facilities who consented to participate in the study, both agreed to assist the researcher in the recruitment of participants by distributing the advertisement (flyer) and speaking with the staff to determine the eligibility of potential participants. A list of those potential participants was then provided to the researcher. At the time of this study, many LTC facilities lost residents due to COVID-19, activities were limited due to COVID-19 restrictions, and more short-term residents were being admitted (versus long-term residents). A decision was made, with the dissertation committee chairperson, to eliminate the time frame for residing in the facility from the inclusion criteria to allow those living in LTC facilities to share the progression of their vision loss over a period of time (i.e., years). An amendment to the research proposal (eliminating the time frame) was sent to the IRB for approval on June 5, 2021, and approved on June 7, 2021.

### **Data Collection**

A sample of 17 participants from four facilities were included in the study (see Table 1).

Table 1

#### *Participant Recruitment*

<b>Participants (N = 17)</b>	<b>LTC Facility #1</b>	<b>LTC Facility #2</b>	<b>ALF #1</b>	<b>ALF #2</b>
Male (5)	3	0	1	1
Female (12)	4	4	4	0

Interviews were audio-recorded and conducted from May 19, 2021, to July 8, 2021. Prior to each interview, each potential participant was provided with a participant letter explaining the study. Once the participant agreed to participate, informed consent was obtained by the researcher by reading the consent form to them as per their request. A copy of the informed consent was given to the participant. After obtaining consent, demographic data were collected, with the researcher reading the statement (rather than having them complete it independently) and obtaining the information from them.

Demographic data included the name chosen by the participant, gender, age, ethnicity, marital status, number of children, highest level of education, previous occupation, diagnosis related to the vision impairment, age at time of diagnosis, other health problems, length of time in the facility, frequency of visits from family and friends, and any assistive devices used (see Table 2). The racial ethnic make-up of the participants was reflective of the facility population and surrounding community. This information provided a detailed description of the participant, enhancing transferability. Interviews were conducted until data saturation was reached.

Table 2

*Demographic Characteristics of Study Participants*

<b>Characteristic</b>	<b>Total (n = 17)</b>
<b>Age</b>	
60-70	1
71-80	3
81-90	7
91-100	6

<b>Gender</b>	
a. Male	5
b. Female	12
<b>Cultural Group</b>	
a. White (non-Hispanic)	14
b. Black (non-Hispanic)	0
c. Hispanic	0
d. Asian	2
e. Native American	0
f. Pacific Islander	0
g. Other	1 (White/Hispanic)
<b>Marital Status</b>	
a. Single	6
b. Married	4
c. Widowed	7
<b>Children</b>	
a. Yes	9
b. No	8
<b># of Children</b>	
a. 0	8
b. 1	1
c. 2	5
d. 3	2
e. 4	0
f. More than 4	1
<b>Highest Grade Level Achieved</b>	
a. 12th grade	17
b. College-1 yr.	1
c. College-1.5 yrs.	1
d. College-2 yrs.	1
e. College-3 yrs.	1
f. College Graduate	9
<b>Previous Occupation</b>	
a. Administrative Assistant	1
b. Head of Bookkeeping Dept./Office Mgr.	1
c. Oil Refinement Manager	1
	1

d. Dress Buyer; Movie Theatre Mgr., Investment Counselor	1
e. Bank Worker, Garment Worker	1
f. Accountant	1
g. Paraprofessional-kindergarten teacher	1
h. Media operator	1
i. Volunteer	1
j. Social Worker	1
k. Priest	1
l. Advertisement Industry	4
m. Teacher	1
n. Religious Sister	
<b>Diagnosis Related to Vision Impairment</b>	
a. Cataracts	4
b. "Lazy Eye"	1
c. Glaucoma	2
d. ARMD	6
e. Anterior Ischemic Optic Neuropathy	1
f. "Deterioration"	1
g. Unknown	2
<b>Age Diagnosed</b>	
a. 6-30	2
b. 31-40	1
c. 41-50	0
d. 51-60	0
e. 61-70	1
f. 71-80	3
g. 81-90	6
h. 91-100	4
<b>Other Health Problems</b>	
a. CKD/ESRD	2
b. DM	4
c. HTN	8
d. Anemia	1
e. PVD	2
f. s/p Amputation	2
g. GERD	2
	1

h. Ulcerative Colitis/Ileostomy	1
i. Head Injury	1
j. Rheumatoid Arthritis	1
k. Atrial Fibrillation	1
l. Hyperlipidemia	3
m. ASHD	1
n. Chronic pain	1
o. IBS	1
p. OA	1
q. Anxiety	1
r. MS	2
s. Asthma	1
t. Spinal Stenosis	1
u. Gout	1
v. Spine (fracture/surgery)	1
w. PPM	1
x. Bowel Surgery w residual effects	1
y. Surgical replacements	
<b>Length of Time in LTC Facility</b>	
a. 3 mos.-11 mos.	4
b. 12 mos.-18 mos.	3
c. 19 mos.-23 mos.	1
d. 2 yrs. -3 yrs.	5
e. 10 yrs.>	4
<b>Frequency of Friends and Family Visits</b>	
a. No visits from either	1
b. Occasionally	16
<b>Use of Visual Assistive Devices</b>	
a. Yes	15
b. No	2
<b>Type of Visual Assistive Device(s)</b>	
a. Eyeglasses	14
b. Magnifier	10
c. Talking watch	1
d. Talking clock	1
e. Audio book player	2
f. Signature ruler/template	1
g. Portable magnifier machine	1
	2



h. Alexa/Echo	2
i. Illuminated clock	1
j. Talking scale	1
k. None	2

All interviews were conducted in a location of the participant's choice where their privacy, comfort, and optimal audio recording could be achieved. They all chose their own room or apartment. One participant agreed to a telephone interview. The participants were informed that the individual information collected from their demographical data and interviews would be kept confidential, that they would not be identified, nor would the data be linked to them. The researcher provided the participants with a copy of the study advertisement that included her number and e-mail address in the event they needed to share additional information that was not revealed in the interview. The participants stated they were not adept with e-mail and stated they would call me if necessary. Six of the 17 participants were willing to provide me with their phone number for future contact. One participant stated she generally receives phone calls and rarely makes them but did not provide a phone number to be contacted. The other 11 participants chose not to provide their number.

The participants were each informed that the researcher had a prepared introductory script (see Appendix I) and suggested questions and follow-up questions. The length of the interviews ranged from 32 minutes to 65 minutes. All but six interviews were held before 1 p.m. (which was convenient for the participants living in the ALF). The interview length varied based on the participant. Some residents had a lot to say while others needed to be probed. As each interview was concluded, all were asked if they had anything else to share that was not previously asked. All declined and stated they did not. Before leaving the site, the researcher thanked the participants for their time in sharing their experiences and awarded each participant

an Amazon gift card of \$25 where they could redeem it online with a vendor of their choice. All indicated their appreciation and wished the researcher good luck on the study.

The interviews were transcribed by a paid transcriptionist and any field notes were recorded in a journal after leaving the site. Audio recordings were stored in a password-protected laptop. Hard copies of the transcribed interviews and field notes were stored in a locked file cabinet.

### **Field Notes**

Field notes signify the researcher's attempts to record data describing observations during data collection. Field notes are not written in the field, as they can divert the researcher from intense observation (Polit & Beck, 2017). Field notes were recorded in a journal to capture both descriptive and reflective data about the participants. Significant words, phrases, non-verbal cues, and the interview setting were recorded after the interview. Additional memos were taken as the researcher listened to the audio recordings. The data obtained were utilized along with the interview transcripts during the data analysis. Developing meaning from this data assisted the researcher in coding and theme development. Descriptive data of each of the participants are described.

### **Description of Participants**

The researcher was welcomed into each participant's room. The interviews occurred during a lull in the COVID-19 pandemic when prior visitation restrictions were lifted. The researcher wore a facial covering (mask) over her nose and mouth and sat at a 6-foot distance across from the participants during the interviews. Most were seated in a room chair or their wheelchair. All the participants except one did not wear a mask, as was permitted at that time. The researcher described the study, the consent was read to them and signed, and the

demographics data were collected by the researcher asking the questions due to their low vision.

The participants occupied a variety of living quarters by the institution. These included a single room, a room holding two to four roommates, or an apartment within an assisted living facility. Each standard type of room within the skilled facility had a bed, a personal television installed on the wall facing the bed, an overbed table, closet, chair, and dresser to store clothing and personal items. Corkboards affixed to a wall typically had a calendar and recreational calendar, even though most participants indicated they could not read it. Some rooms were more cluttered and noted to have personal items displayed and readily within reach. The room windows allowed natural light in, and adequate overhead light was occasionally turned on. All rooms were designed by the institution with light wall colors and uncluttered floors. Some rooms were located farther than others down a hallway at a distance from the nursing station and dining area. A rolling walker was noted to be present in some of the rooms.

All residents were neatly dressed and groomed by themselves or with staff assistance. During their interview, their doors were closed for privacy when possible. A few residents had their roommates in the room during the interview and did not want to go to a more private area.

### **Introduction and Summary of Each Participant**

#### ***Mary Ann***

Mary Ann is a 72-year-old White non-Hispanic female who has been residing in her current LTC facility for approximately two years. She is widowed, has no children, and no family or friends who visit her. She is a high school graduate who attended two years of a well-known secretarial school that prepared her for her role as an administrative assistant. Her room was semi-private, which she shared with another resident who was not present in the room at the time. The resident was soft spoken, well groomed, and dressed appropriately for the season. Her

hair was blond and short, which allowed her gold-hooped earrings to be noticed. She was wearing black-rimmed eyeglasses and a tan face mask, although she stated she had been vaccinated against the COVID-19 virus. The resident was seated in a wheelchair adjacent to her bed and in front of her bathroom door. Her feet were touching the floor as there were no leg rests observed on the wheelchair. Her bed, which was located closest to the window, was decorated with pillows, and a Snoopy blanket graced the top of her mattress. Dresser drawers (three in total) were closest to her bed. The blinds to her window were open and raised, allowing sunlight to illuminate the room without the use of any assistive lighting. Her windowsill displayed framed photos and a variety of knick-knacks. Her room appeared neat with numerous items stored in plastic crates on top of her dresser drawer units. In front of her two-door closet was a folded rolling walker. What appeared to be frequently used objects and accessories were kept close and accessible to her. An assistive device called a reacher was hanging on the wall outside of her bathroom door, allowing her to grab necessary items. On top of one of her dresser units, there was a large magnifying mirror and a clock with large, illuminated numbers. She said that she designed the room and placement of all items herself with help from staff and tries to maintain as much independence with her ADLs as possible.

Mary Ann stated that she came to the facility in June 2019 and that it was her choice. She transferred from another facility because she was not happy living there. She has no friends, family, or visitors, and considers the resident next door (as she shares an adjoining bathroom) to be her best friend as she helps her with tasks that involve reading (i.e., flyers, memos, and mail). When asked about her vision impairment, Mary Ann stated she has cataracts and that her eye appointments and surgery were delayed due to the pandemic. She stated that she relies on another resident to read things for her, specifically her mail. At one time, prior to the pandemic,

she was asked to make the daily announcements, which she thought was comical as she cannot read the print and relies on someone to help her. She likes to play Bingo and Yahtzee, yet she states she can't always decipher the numbers or letters on the card or game pieces. In addition to cataracts, Mary Ann has other health-related concerns, notably end-stage renal disease, hypertension, diabetes, and anemia.

### ***Margie***

Margie is a 77-year-old White non-Hispanic female who has resided in her current LTC facility for approximately two years. She is widowed, has two children, and family and friends who visit her in accordance with COVID-19 visitation guidelines. She is a high school graduate and was the head of a bookkeeping department. Her room was semi-private, which she shared with another resident who was not present in the room at the time. Margie was seated in a wheelchair with her overbed table in front of her. Placed on the table were numerous items (i.e., flyers, magazines, cell phone, and a laptop). She was neatly groomed, wearing a black and white short-sleeved patterned dress, and flat rubber-soled white shoes. Her feet were touching the floor as the leg rests were placed on the floor against the wall near her bed, which was located closest to the window and bathroom. Her hair was neatly groomed, her lips were decorated with pink lipstick, and she was wearing black-rimmed eyeglasses of which she stated she had many pairs. The TV was affixed to a track on the ceiling over the foot of her bed, which she stated she can see but only with the use of eyeglasses. Adjacent to her bed was one dresser with three drawers and two self-purchased plastic multi-drawer clear cabinets adjacent to it. On top of the dresser was a large magnifying tabletop mirror, which she stated she uses when brushing her hair and another smaller one used when applying makeup. Her windowsill was decorated with three small plants, figurines, and photo frames of pictures of her family. The plastic multi-drawer cabinets

contained clothing that was neatly folded and arranged for easy identification. A reacher device was affixed to the wall adjacent to the head of her bed. As stated by the resident, articles and personal belongings were arranged on her table and dresser top by herself so she would know where to find them. Margie stated she relies on her wheelchair and states she has no need for a rollator as she does not walk but can transfer herself from chair to bed or toilet if necessary. As per the resident, she can do most of her ADLs. When asked if she has ever fallen in her room, she stated that she has fallen many times without injury but attributes it to poor balance and not her vision impairment. She stated that her falls have been attributed to self-toileting. A light was visible on the bottom of the wall outside of the bathroom. She stated as per her knowledge there was no fall-prevention plan developed for her.

Margie stated it was her choice to seek admittance to the LTC facility as she did not want to be a burden to her sons. She stated that she was in another facility prior to arriving at her current one but her insurance would not permit her to stay. She stated she had already given up her apartment that she sold and had no place to go. When asked about her vision impairment, Margie stated she has small cataracts where surgery is not required at this time, as her cataracts are too small to do anything. She stated that she is seen by the facility optometrist and has many pairs of eyeglasses in the event she loses any. In addition to the cataracts, Margie reported other health-related concerns, notably chronic renal disease, hypertension, diabetes, GERD, and ulcerative colitis (for which she has an ostomy).

### ***Kim***

Kim was recommended by unit staff in one LTC facility as someone who might be willing to participate in the study. The researcher was provided with his room number and proceeded to go to his room, but he was in the dining room sitting in a wheelchair with his eyes

closed. Lunch was finished and there was no activity occurring at the time. A staff member gently tapped on his shoulder and introduced the researcher to him.

Kim is an 81-year-old Asian male originally from South Korea. He is married and has an adult-aged daughter. His daughter resides in New York, yet his wife remains in South Korea with no plans to come to the United States. He attended two years of college working for an American oil refinery company in South Korea. He has been living in his current residence since July 2020. Only recently has he received visits from his daughter due to the facility visitation restrictions resulting from the pandemic.

Kim resides in a room with four beds, with his bed stationed to the far right of the room and closest to the window. The blinds were open and half drawn, allowing natural sunlight to radiate the room. He stated the lighting was good in his room and finds it helpful for him to see better. At the time of the interview, two residents across from him on the other side of the room were lying in bed with their TVs on. The volume of each could be heard from where Kim and the researcher sat. The researcher proposed another quieter area to assure privacy and to minimize volume, but Kim was not concerned about his privacy or volume. The door to the room was left open as per Kim's wishes as several staff members frequently came in and out. Kim was neatly groomed, wearing a light-tan short-sleeved pullover shirt with dark-tan cargo shorts. His hair was short, black, and grey in color and combed. He wore a sneaker on his left foot with a brace to his left leg and wore a sock on his right foot. He stated he lost two toes on the left foot and subsequently had all toes removed resulting in a below-the-knee amputation. He was not wearing a prosthetic device on that leg. There were no leg rests on his wheelchair. He reported pain in his legs since being vaccinated for COVID-19 and stated he is no longer able to stand or walk.

His immediate environment revealed an overbed table at his bedside with several

newspapers and a cell phone placed on top of it. Affixed to the wall was a corkboard that had a recreation calendar, which he stated he could not read, and a picture of him in United States Army formal attire. He stated he was a decorated officer and an M16 rifle expert. Other than his photo, there were no photos of family or friends. Across from the head of his bed and affixed to a ceiling track stood a TV, which he stated he has difficulty seeing. He does not wear glasses.

Kim speaks Korean and English is a second language. While his English could be understood and he was able to understand, the researcher intentionally spoke slowly and clearly so she could be understood. Kim is not hearing impaired, but the researcher spoke loudly due to the volume of the other TVs in his room that were on at the time. The researcher stopped and interjected many times to be assured she heard him correctly.

When asked about his visual impairment, Kim stated he had an accident in 2008 where mango boxes that were not placed appropriately on a shelf were knocked off by a forklift in motion, hitting him in his head and causing him to fall down. As a result, he stated he had blurred vision in his left eye. He subsequently had a second accident and as a result was transferred to customer service. He stated he was making plastic balls using a machine when one ball burst out of the machine, hitting the side of his left eye. He stated his eyes blew up like a ball, went to the hospital, and only received a gel application to the site similar to what boxers receive. He stated there were no special eye doctors there. Days later, he saw an eye doctor who checked his eyes and continued with the gel treatment. As a result, Kim stated his eyes became blurrier, resulting in his inability to read the Bible or newspapers and only able to read large letters. He stated he cannot drive and has lost his driver's license. He stated that he is seen by a facility eye doctor and has been given drops and "Tylenol," but the drops cause discomfort and the blurriness returns shortly after. He states he can read the paper but no longer than five



minutes because his eyes become blurred and painful. Kim stated he feels “very sorry” about his eyes, further replying, “I feel very bad, and it makes me very bad all day long.” When asked what he does for most of his day, he stated he does nothing. He just tries to sleep but because of the pain in his eyes, he cannot sleep. He has his meals in the dining room and just stays there afterwards. He has participated in Bingo but does not like the game and just listens to the TV in his room. He is proficient with using a computer, yet he does not have one. Kim does not have any adaptive devices but stated if offered a magnifier, he thinks he could read everything. When asked if the accident changed his life, he stated it “quite changed.” When asked about whether he felt he still had quality of life, Kim stated, “I don’t think so. I have lost my quality of life now almost more than 50%.” While he stated he has no other health problem other than pain in his eyes and legs, he attributes many of his problems to the vaccination, which he refers to often, blaming it for his inability to stand and walk and regrets receiving it. He stated that the first thing he needs to do is “I got to walk.”

### ***Alan***

Alan is a 92-year-old White non-Hispanic “American” male. He is widowed and has no children. He attended one year of college and held several different jobs such as a dress buyer, movie theater manager, and an investment counselor. He has been living at the LTC facility for over two years. Prior to visitation restrictions placed on the facility due to the pandemic, Alan stated he had friends who would come visit him.

Alan resides in a room containing four bedrooms and that is furthest away from the nursing station. As the researcher walked into his room, his bed could be seen against the wall to the opposite side of the doorway where the right side of his bed was across from the bathroom. At the time of the interview, Alan was groomed and neatly dressed in clothing appropriate for

the season. He wore a light-blue short-sleeved pullover shirt, black elastic-waisted sweatpants, and black non-skid soled slip-on sneakers. His hair was thin in texture, grey in color, and combed. A noticeable open wound was observed on the right side of his nose. He appeared comfortable and relaxed. Alan stated he is independent in performing his ADLs and he feels that he is not at the stage where he needs help from staff.

The environment around Alan's bed appeared cluttered. On the right side of his bed was a three-drawer dresser with numerous items on top—noticeably a desktop computer screen, small figurines, and personal hygiene items. Adjacent to that dresser and in the corner against a wall next to a bathroom door was a bookshelf with two shelves containing items such as books, boxed food items, condiments, and Styrofoam cups. On top of the bookshelf stood a large ceramic dog statue, a vase in the shape of a large pitcher, and more cups. Several Snoopy figurines were noted on top of both the dresser and bookshelf. An unplugged lamp with a torn lamp shade was also observed. In between the dresser and adjacent to the head of the bed stood a pink vinyl stationery chair that held an abundance of items on the chair cushion. The number of items placed was at least 12 inches high and included boxed crackers, towels, disposable briefs, a wrapped sandwich, and a New York Yankees towel. His bed was covered by a dark green bedspread. Numerous items were placed on the left side of his mattress such as magazines, a call bell, catalogs, books, a black comb and bristled brush, a TV remote, TV guide, two books of Shakespeare (one a dictionary), and a large-handle magnifying glass. Stuffed in between the footboard and the mattress were rolled-up and rubber-banded bills and newspapers. The overbed table was cluttered as well with containers of milk and nutritional supplements on top. Adjacent to the bathroom door was a folded walker (which Alan states he does not use) and two sinks lined with oral hygiene products. Behind the head of his bed was a bulletin board that contained a monthly

recreational calendar, artwork, an American flag, and a religious prayer. On the wall to the right of the head of his bed were framed pictures of Groucho Marx and Frank Sinatra, while two photos of Audrey Hepburn were posted on the bulletin board. A large window was observed in the center of the room with two beds aligned to each side. The blinds were open and half drawn, allowing sunlight to enter the room.

When asked about his vision impairment and any other health conditions, Alan stated he has cataract in his right eye, which was recently diagnosed in May 2021. He stated that there was “something” beyond the cataract that would need to be determined after the cataract is removed. As for other health conditions, he stated he has his blood pressure taken three times a week, receives eye drops for dry eye and a special eye drop for the incipient stages of glaucoma to his right eye. He takes a diuretic and thinks he takes a potassium pill, which he says is good for his heart. He is a non-smoker.

As for recreational and social activities, Alan claims to be a movie buff and enjoys watching movies mostly on Turner Classic Movies. During the interview, he would often quote lines from many of them. He plays Bingo and Pokeno only because he was asked by a friend as they needed an additional player. He claims he has become a “Bingo nut.” He stated he is able to see the numbers on the card yet uses his magnifier if his eyes become tired. He states he is involved in very few things because they are not of interest to him. He stated he was invited and participated in a painting class where he would autograph the painting with the name of famous artists rather than his own. Alan stated he enjoyed sports, having played both tennis and golf with his late wife, whom he misses. He finds pleasure in table tennis, pool, and sports but feels those activities are “not in the offering.” Alan dines in his room due to unpleasant things he saw in the dining room (i.e., people sleeping) and it “depressed him.” Alan mentioned he does have a

psychologist who visits him. When asked why, he stated, “Maybe she likes me.”

As for changes in his vision since his arrival at the facility, he stated his right eye has gotten worse and the left eye is not as sharp. He attributed this to the advancing years. Alan tends to spend most of his day in his room doing his workouts, reading Shakespeare, and watching TV (for which he wears eyeglasses) and keeps abreast of news. He is very fond of a well-known Fox News host. He stated he does not feel isolated or reclusive as he can leave his room at any time. While reading is important to him, he emphasized that he memorizes things, especially Shakespeare. Alan is able to read and stated that if his magnifiers were lost (he has purchased two), it would be very difficult and he would not be able to read at all. He stated the changes in his vision have not been difficult and he accepts it. He is hopeful that there will be an improvement with surgery, wishing for 100%, and if not, he feels anything would be an improvement.

While Alan was very complimentary of the recreation department, the researcher asked him if they were aware of his visual impairment because programs could be modified for him. He stated he does not talk about it, as they might “give him a cane” and he does not want them to know. Throughout the interview, Alan used many highly educated words and always had a quip to make when answering a question. He answered many questions with humor, impersonating comics and using lines from classic books and movies. He stated he has a wicked sense of humor and that in a place such as where he resides, you have to learn to laugh or “you’ll go nuts.” As for adapting, especially regarding his vision, his words to the researcher were “If someone gives you lemons, you make lemonade.”

### ***Mae***

Mae is an 87-year-old White non-Hispanic female who is widowed with two adult

children. She is a high school graduate who worked in a bank and then in New York City's Garment District as a secretary. She has been living in her current residence for a few months but cannot recall the exact time. She states she is moving from the current facility to an assisted living facility within the next two weeks. She was neatly groomed, wearing white pants, a navy-blue and white-striped pullover blouse, and red non-skid slipper socks. Her feet appeared to be swollen. Her hair was short, grey, and combed. She was wearing metal-framed eyeglasses. A bulletin board was noted to the right side of her bed where two flyers were pinned to it; one was a recreation calendar and the other a fall-prevention reminder. Mae stated she cannot read them. A pink happy birthday notice with a beaded necklace was also attached to the bulletin board. An oxygen concentrator was located on the floor next to her dresser drawers, which was on the right side of her bed adjacent to where she was sitting. A cell phone was visible. A large window was noted directly across from the doorway of the room. The window blinds were open and pulled half-way down, allowing sunshine into her room, although the room was brightly lit for the time of day, which was early afternoon. The light over the head of her bed was turned on. A folded rolling walker was present, stationed in front of her closet. No clock was present in the room. The floor was clean, tiled, and without debris. A chair that was placed in front of the window stored various personal items. On her overbed table, several beverages could be seen.

When asked about her vision, Mae stated that she was diagnosed with a lazy eye at approximately 6-7 years of age. This occurred because of a rock-like snowball that was tossed at her. In addition to her vision impairment, other health conditions include rheumatoid arthritis, hypertension, and a recent diagnosis of atrial fibrillation resulting in a blood clot to her lung. Mae stated she needs her glasses for distance and can participate in her ADLs such as feeding, dressing, grooming, and transferring, but waits for staff to help her because they do not want her

to fall. She attends physical therapy and uses the rolling walker when she is there. She says she just completed stair training. She claims that therapy makes her tired. She enjoys activities such as watching Jeopardy and Wheel of Fortune and a game show called “America Says.” Prior to admission and the pandemic, she enjoyed going to the casino with her sister. Mae stated that she was driving but needed to give up her car. When asked how that made her feel, Mae responded by saying she was upset because driving allowed her to go to the pharmacy and shopping whenever she wanted to. Mae stated that she does not participate in any of the unit activities or meals that are provided in the unit dining room and prefers to stay in her room. She says she feels sorry for anybody who is in that room because so many of them cry and moan and it upsets her. Mae stated that there are no real activities brought to the rooms due to the pandemic and has never been offered anything to do. She attributes this to the staff knowing she would prefer to stay in her room. While Mae has family, they have not been able to visit her as per restrictions placed on the facility. She knows they will be there soon to assist with her transfer to another facility, which she is looking forward to as her cousin resides there. When asked what she misses most about her vision impairment and her social and recreational life, she said it was her husband as they would do everything together. She said she misses him terribly. When asked how and if she adapted to the facility following her transfer from the hospital, Mae stated that she felt very bad and that she would not talk to anybody and did not want to see anybody. She said she just did not care anymore as she felt like she was abandoned.

### ***Larry***

The researcher received a call from a colleague who treats this resident in a medical office where she works. She informed him of the researcher’s study, and he was willing to participate. The researcher was provided with his phone number (as per his permission) and was

told that she should call him the following day, which she did. An appointment was made for a face-to-face interview on a day, time, and location that was convenient for him. As per the tone and humor in his voice, Larry sounded enthusiastic about the study and hoped that he would be able to help the researcher. The interview was scheduled to take place at his apartment in the ALF.

On the day of the interview, the researcher was given his room number and proceeded to head to his apartment. The door was slightly ajar as if he knew the researcher would be there soon. The researcher knocked on the door and was greeted by him. He guided the researcher to his living room where the interview would occur. The researcher sat at a small rectangular dining room table in the living room (located on the opposite side of the kitchen) in a stationary chair across from where the participant sat. His four-room spacious apartment was safely staged with essential items easy to reach.

Larry is a 90-year-old White non-Hispanic male who is married and has four adult children and eight grandchildren. He is a college graduate who earned a bachelor's degree in accounting, where he worked as a partner in his own firm. Larry was neatly and appropriately dressed. He wore a thin yellow metal wedding band on his left ring finger. His eyeglasses were attached to a lanyard hanging from his neck. He has been living in his current residence with his wife for the past 1 ½ years. Prior to the pandemic, his family would visit, but it was difficult, as his family lives afar and his one adult daughter relies on public transportation from New York City.

Larry was asked about his visual impairment. He stated he did not wear glasses until he was about 50 years old. He stated the diagnosis given to him was that he is "going blind." He stated his right eye has peripheral vision only and his left eye is "fairly decent." He does not

recall when he began to see changes and did not know he was blind in the right eye as he was compensating with his left eye. He did not realize there was a problem until he went for an eye exam, which he would do periodically as the ophthalmologist was a client of his. He stated that he needed to read the eye chart but could not and stated he could not see fingers when held up. He did not anticipate this and stated he was shocked because an accountant deals “with numbers and small figures and everything.” He said at that time he did not have glaucoma, but his pressure was borderline. He was given eye drops and was eventually told he had glaucoma in that eye and now in both eyes.

As for any other health problems, Larry denied high blood pressure, diabetes, and cardiac issues, stating he has a family history of longevity. He then proceeded to say that he had a history of a blocked inferior left carotid artery for which he has dopplers performed twice a year. He stated he takes aspirin for this, allopurinol for gout, and tramadol for back pain (stating he had two spinal surgeries and most likely has a pinched nerve). He stated he has reflux, high cholesterol, an essential tremor, and takes a multivitamin. Several medication bottles were noted on the dining room table and by the kitchen sink. Larry stated he can read the labels when he wears his glasses. As for his glasses, they are the only adaptive device that he uses. Because of his vision, he stated he cannot read the newspaper, which is something he liked to do. He still has *The New York Times* delivered but mostly for his spouse. He said this was one of the reasons why he came to this residence because he realized his inability to do what he normally used to do (i.e., repairing things around the house). He stated his inability to walk is due to his vision and needs to use a walker, which he admits he walks around his apartment without it. He was asked about driving, which he stated he no longer does because of insecurity with his eyesight. He stated it did not have an impact on him because his spouse would drive, so there was no loss of



any independence. Larry stated he misses not being able to visit family and friends. However, due to his wife's health and his preference to not get behind the wheel of a car (as he does not think it would be safe for others on the road), he is unable to see them.

He believes his eyesight has deteriorated since his relocation to his current residence. When asked whether this has held him back from socially interacting with others, he stated because of COVID-19, everyone walks around with a mask and he does not always know who he is talking to. He claims he is not good with facial recognition. Larry described an embarrassing situation that he recently had when he went to get a haircut and a woman seated in the chair next to him asked him about his wife. He answered her by asking for her name, not realizing he has known her since 1962. He stated he did not recognize her, but once she identified herself, he could associate her name with the face. He stated this was very scary. Larry stated because of having to wear a mask based on COVID-19 restrictions, it is hard to be "happy" at Happy Hour, which he enjoyed participating in. He further stated that his own inertia has held him back from socially interacting.

Larry said he spends most of his day and time in his reclining chair and sleeps a lot. He does not watch a lot of TV, as he lost interest in sports, which he used to follow. He uses his iPad to play solitaire and poker. Audiobooks have been made available to him, but he has not taken advantage of them. He participates in Zoom meetings with his family weekly on Wednesdays, as this allows him to see his grandchildren.

Prior to relocating to this residence, he would often dine out with friends but has not been involved in social and recreational activities mostly because of his own "inertia." He participates as a member of a Vision Support Group held at the facility but finds the meetings a little boring because some people repeat the same things over and over.

Larry receives a calendar each week with the planned activities and states he can read the calendar. He stated he participated in a few of the activities, especially current events, but he does not attend many because they interfere with physical therapy and medical appointments. While attending physical therapy, Larry has accessibility to equipment (i.e., treadmill and bike) and thought about using them, but according to him, “You can’t get anywhere. No matter how hard you pedal, it stays there!” Meals are brought to his residence as he no longer eats in the dining room, which now requires a reservation and table size is limited.

Larry can perform his own ADLs, including showering, but because of his poor vision, he is fearful because his knees have buckled a couple of times and he is afraid of falling. He uses a shower chair and grab rails that are affixed to the walls in the shower. He states he can see the shower knobs and can differentiate between the soap and shampoo. Larry is Jewish and while not “observant,” he does attend religious services with his synagogue on Fridays and Saturdays via Zoom. As the interview was ending, Larry concluded by saying as far as he is concerned, low-vision people...“there’s no exception made for that. They don’t do anything.”

### ***Marlene***

Marlene is an 82-year-old White non-Hispanic female who has resided in her current LTC facility for approximately three years. She is widowed, has three children, and has family and friends who have visited her recently in accordance with COVID-19 visitation guidelines. Marlene is a high school graduate who has worked as a kindergarten and special education teacher. She states the educational requirements for teaching were different “back then” and she completed courses earning a certificate. When asked about her visual impairment, Marlene stated she has a cataract in her left eye diagnosed approximately three years ago for which she wears glasses. In addition to her cataract, Marlene reported other health conditions such as irritable

bowel syndrome, anxiety, hypertension, and arthritis in her knees. Marlene resides in a room containing four beds, with her bed closest to the door of the room.

Marlene was neatly dressed, and her clothing was coordinated. She was wearing a long-sleeved cotton blue-printed pullover blouse, a blue-beaded necklace, blue pull-up elastic pants, and white sneakers. The clothing did not appear seasonal, but she said the room temperature was comfortable and that she was not warm. Her hair, brown in color, straight, and shoulder length, was combed. She wore glasses, which appeared to be crooked on her face. She had an overbed table that was to the right of her which had a flip cell phone and a clutter of paper on top of it. On top of her bed, she had two large, printed word search books. Pictures adorned the cork board on the wall behind her headboard. One picture was an 8x12 laminated computer-printed document noting her name and personality traits, yet she stated she never read it because she is unable to see it. A rolling walker with clothing thrown over it was placed in front of her closet door.

As for her visual impairment, Marlene stated that she has cataracts and that her left eye is becoming cloudier and blurrier. She said there has been a delay in eye services due to the pandemic and that she has been waiting a year and a half to be seen. Marlene is president of the resident council and loves to be involved in activities, not allowing her eye impairment to get in her way. She stated she has been dealing with it and has support systems in place where she and others look out for each other. During the interview, a neighbor from across the hall called out to see if she was okay, as he observed her door to be closed.

Marlene loves to be with people and likes to be out of her room, but restrictions placed on the facility at the height of the pandemic isolated her by having to stay in her room. She stated she feels better now that restrictions are being lifted as no “real” activities were occurring during due to the pandemic.

***Raymond***

Raymond was bald, clean shaven, wearing black-rimmed glasses that showed his eyes fluttering at times as if he was trying to stay focused on the researcher. Upon the room entrance, pictures of him and his family were posted on the wall to the left. A large window was directly facing ahead and to the right side of his bed. The blinds were open and half drawn, allowing light into the room. Above his head, an overbed light was affixed to the wall and turned on. A large desk with a single drawer underneath the desktop was noted to the right side of his bed and against the wall next to the window. On top of the desk was a large phone and receiver with oversized colored buttons. A call bell was located hanging from the bed toward the floor, which was picked up and cleaned by the researcher and placed within his reach. The bathroom door to the immediate left of the entrance and across from Raymond's bed had no calendars or reminders on the door. A bulletin board located behind the head of his bed was present yet also bare. On the wall next to the left of his dresser where the TV was placed was a picture of him and his family.

Raymond stated he is a 71-year-old White part-Hispanic male who is married and has three adult children and several grandchildren. He has been residing in his current residence for over two years. Raymond attended community college for 1½ years and worked as a media operator (which included photography, film development, movie production, and videotaping) in a college setting for 17 ½ years until his poor health—specifically multiple sclerosis (MS) diagnosed at the age of 45—contributed to his early retirement. When asked how his early retirement affected him, he stated it did not as he could now spend more time with his family. His family only until recently began to visit him as pandemic restrictions in the facility have eased. When asked if lack of visitation had any effect on him, he asked the researcher how she would feel if she did not have any visits. He said he did not communicate with anyone and

looked at the ceiling all of the time. Raymond is dependent in all ADLs (i.e., hygiene, dressing, mobility, showering, and incontinence care) as he is unable to move his left hand and has limited ability in his fingers. More mobility was seen with his right hand where his arm appeared contracted. He relies on staff to feed him, yet he states he can eat a sandwich with his right hand.

When asked about his vision impairment and any other health conditions, he stated he had asthma but “outgrew” it and his only condition now is the “MS.” He denied having a visual impairment. He contradicted himself as to whether he needed glasses for work or not. He stated he never used eyeglasses when he was working, but after retirement, he found himself with several pairs. He stated he just uses eyeglasses to see distance or for whatever he needs to read. He stated he is not a social person and does not like to participate in social or recreational activities, but he does enjoy watching black and white movies, sports, and old game shows such as “Truth or Consequences.” He prefers to stay in his room and considers himself a loner. He states there is “nothing going on” that he would be interested in doing. He states he has nothing in common with other residents as they are from different ethnic backgrounds, do not share the same interests, and are outside of his age group. He was emphatic in saying that he is not interested in activities, but he did enjoy going to barbecues and getting outside in the fresh air. He attributed his lack of social engagement to his inability to physically perform because of the MS. He stated he was previously in a room with others but got a private room when offered, which he enjoys because he does not need to hear anyone complain about their problems.

There is no calendar in his room and states he is not interested in a calendar and does not need one as he gets his news via TV. As per Raymond, he stated he does not need to know the dates: “What do dates have to do with anything? It’s just another day.” Except for a holiday or birthday, he does not find anything “special about the days.” Raymond knows it is June (the

month of this interview), but as to the exact date, “I don’t know, and I don’t care.” He stated he does not like to read and does not like word games for he does not find them interesting. When asked what could be done to get him more involved in activities, he does not think there is anything that would interest him. When asked how he spends his day, he stated his day consists of lying in bed and watching lots of TV. Although he enjoys sports and recalled playing softball and stickball as a child, he has lost interest in anything physical. Mentally, he listens to the news to see what is happening but says because of the pandemic, “Nothing wonderful is happening.” Raymond stated because of the pandemic, nothing socially or recreationally was offered to him. Raymond stated that he does not like to be dependent on anyone and he would prefer to do things physically himself but cannot: “I’ve given up—but I haven’t given up on life because I still have my brain and I still can communicate.” As the researcher thanked the resident for his time, he thanked her and stated, “That’s all I have for the time being.”

### ***Judy***

The researcher received a call from this participant who was given the study research flyer at a Vision Support Group that she attends at her residence and stated that she would like to participate in the study. An appointment was made for a face-to-face interview on a day, time, and location that was convenient for her. As per the tone in her voice, Judy sounded very enthusiastic about the study and hoped that she would be able to help the researcher. The interview was scheduled to take place at her residence.

On the day of the interview, I was given her room number and proceeded to head to her apartment. The door was slightly ajar as if she knew the researcher would be there soon. Personal artwork was placed on the walls outside of her door and an athletic trophy statue was placed on a ledge serving as a “landmark,” which Judy stated helps her identify her apartment. The

researcher knocked on the door and was greeted by her. She guided the researcher to her living room where the interview would occur.

Judy is a 90-year-old White non-Hispanic female who is widowed and has two adult children. She is a college graduate earning a bachelor's degree in Spanish literature. She never held a paying job but was a civil activist as a member of the League of Women Voters. She assisted her husband in his law practice and in many sports activities as he was the program director of large track and field events. She enjoyed the sporting events, as it gave her an opportunity to go to every Summer Olympics from 1968 to 2002. At the time of this interview, Judy stated she has been living in her current residence for approximately 10 ½ years.

Judy was neat and well groomed, wearing a cream-colored pullover blouse, cream-colored zippered pants, and white sneakers with non-skid rubber soles. Her hair was short, dark grey, and combed. She wore no makeup but was wearing thin black-framed eyeglasses. She was petite in stature and walked slowly and gingerly due to a history of spinal stenosis.

Her residence was spacious. There was a kitchen to the immediate left of the entrance foyer. Throughout the room were pictures of her and her family most noticeably on the windowsill. The window was large and in the center of the room, overlooking the facility grounds. She reported she is independent in her ADLs and wants to be as independent as possible.

When asked about her visual impairment and any other health conditions, Judy stated she was diagnosed with ARMD, both the wet and dry kind in 2007. She also has spinal stenosis and osteoporosis. Judy stated her vision impairment has had an impact on her life, as she and many of her friends of the same age have more difficulty in getting around. She stopped driving, which she sometimes misses but claims she was never a good driver and drove for the sake of driving

“for there’s things you want to do sometimes.” She willingly gave up driving, realizing she could not judge distance, not knowing how far she was from the curb when parking and even when stopping the car. She stated that it was at that time she determined she should not be behind the wheel of a car. She uses a magnifier and used it while signing the consent form. She says she would not be able to see without it. She said she began to see changes in her vision about 10 years after her diagnosis and claimed it has gotten worse in the past year and she is at the stage where she cannot read things. She mentioned that typewritten words are difficult to see unless the type is on “nice white paper with dark letters that aren’t too small.” She enjoyed reading the newspaper but cannot read one now. She canceled her subscriptions to *The New York Times* and *Newsday* because she could not read the print. She liked a particular puzzle that she would do daily but found it a struggle. She relies on her TV, computer, phone, or iPad for news and stated she is looking to purchase a larger screen TV because there are things she cannot see. She finds her computer to be a godsend because the fonts can be made bigger, which she stated is an enormous help to her. She stated that the computer helps her financially, as she can use it to pay bills. She reported that she has also mastered Zoom. She finds it bothersome that she cannot recognize people but can see their bodies and relies on their voices to identify them. She states she needs to walk close to someone to identify a face. She recalled a time when she arrived in the dining room one night for dinner and was to be seated at a table with six people. When she got to the dining room table, she did not see any of her friends and realized they were seated at another table but was unable to find them. She said for the first time in her life, she felt forlorn and required someone to help her. Her vision impairment impacted on her ability to draw, as several pieces of her artwork adorned the walls above the table where we sat. She stated she was quite a proficient knitter but was making too many mistakes, having to pull the yarn out and try again.



She stated she wanted to be able to knit a blanket for her great-great-granddaughter but now cannot. She said not being able to knit made her feel sad as it was the one thing that would make her sit still.

When she was able to go out shopping (prior to the pandemic), she could not read labels but used her magnifier. She stated she does not cook much anymore but can still bake cookies. She uses the magnifier to decipher the different dials on the stove and microwave. Lighting was verbalized as something that was important to her. She recalled a time when she and her daughter used to decorate children clothing and she knew something was wrong when the color of the thread she was using was being questioned. She said she frequently brought things to the window to get more light to read or do something. As per Judy, light was the first thing she felt she needed at the beginning of her vision loss and that was the catalyst in letting her know something was not right. Due to the efforts of the director of her Vision Support Group, LED lighting was installed (without charge) into the apartments of the residents who participated in the group.

As for keeping busy and participating in activities, she attends yoga classes and tai chi, where she found the fitness programs physically benefited her. She likes to walk outside of the facility to chat with others. She plays bridge and mahjong (with the cards and tiles big enough to see) at her table with other residents. She uses hearing aids that are unnoticeable and has them synced to her iPhone so she can listen to books on her phone.

When asked about her vision loss and the future, Judy stated she feels sad that nothing can be done for her eyes, as she was told there was no treatment. She is thankful that this happened to her while she was “pretty old.” She stated that if it happened to her while she was younger, that it “would’ve been worse as not much is expected of her anymore.” She has done all

the things that are important. She finds the Vision Support Group to be helpful as participants in the group get to share the different gadgets that they use. She stated one of the goals of the group is to make sure nobody is isolated and that their self-worth is not being diminished. Her advice to older people with visual impairments is to not be afraid of gadgets; she stated that many are afraid to touch anything and some are resistant. She claimed she is in a good place (i.e., facility) because there are so many people wanting to help, especially to those who are impaired. She finds comfort in knowing there are others in the facility that can help her in the facility and that she never feels alone.

### ***Dorothy***

The researcher received a call from this participant who was given the study research flyer from a Vision Support Group that she attends at her residence. An offer was made by the researcher to conduct the interview in person at her residence, but she preferred it be conducted via telephone as she is not an “early person” and would have to get dressed. Based on her preference, a telephone interview was scheduled.

Dorothy is a 93-year-old White non-Hispanic female. She is single, having never married and has no children. She is a college graduate who earned her master’s degree in 1965 and worked as a social worker. Her voice was soft spoken with a pleasant tone. Dorothy has been living in her current residence for 11 years and prior to the pandemic was visited by nieces and nephews. When asked about her visual impairment, she stated that no diagnosis was given to her but that she required an emergency ophthalmology appointment in March 2020 because she could not see. She eventually disclosed that she had ARMD. Dorothy stated that she has other health-related conditions in addition to the ARMD, specifically hypertension, osteoarthritis, diabetes, and is on a heart medication but could not recall why. Dorothy said she uses a rolling

walker secondary to knee pain and stiffness but considers herself “spoiled” as she uses a motorized wheelchair. While she identifies her motorized wheelchair a “godsend,” she also sees it as a deterrent, as she has difficulty getting up from it after sitting for long periods of time. Despite her vision impairment, her wheelchair gets her where she needs to go and she is able to see enough to operate and drive it. In addition to the wheelchair, she relies on low-vision prism lenses (which she stated she was wearing), a magnifying glass, and had special LED lighting installed in her apartment. She relies on a computer and TV, which is easy enough for her to see and she also called them a “godsend.” Because the interview was conducted via telephone, the researcher was not able to visualize the living space, which may have provided additional information as to her adaptation within her environment.

Dorothy stated she likes to be alone and has always been that way. She stated she finds it bothersome that she cannot recognize faces but does attend functions. Prior to the pandemic, she would dine in the dining room. However, since the pandemic, she now prefers to eat alone in her apartment. She stated she finds the low-vision group helpful as she has adapted to make things work for her. She recognizes that she needs help with ADLs but refuses it, as she wants to be independent and alone.

### ***Charlie***

Charlie was referred to the researcher through a personal connection with her parish pastor who put her in contact with the director of a residence for infirm and retired priests. The researcher was given a date and time for the interview by the director that would not interfere with the participant’s breakfast or daily mass. On the day of the interview, the researcher was asked to contact the executive assistant of the residence. She greeted the researcher and escorted her down the corridor to Charlie’s room, where she was greeted by him as he was exiting his

room. Charlie invited the researcher into his apartment where he is the only occupant, as all the priests have their own apartments.

The researcher informed him as to the reason for the visit and explained that she was conducting a research study. A letter of participation and a flyer describing the research study and the researcher's contact information was provided. He willingly volunteered to participate. The door to his apartment was not fully closed and slightly ajar as per his preference. Privacy was able to be maintained.

Charlie is a 69-year-old Asian male from Thailand who is single and without any children. He attended college and had a master's degree, which he earned from a well-known university. He is a retired priest. He stated he is visited by a niece but not often as she has to rely on public transportation from NYC because she does not drive. Tucked into the neck area of the collar of his shirt were dark sunglasses, which he stated he should be wearing because the glare bothers him.

Charlie's apartment was spacious, consisting of two large rooms: a living room and a bedroom. At the entry, there was a large rectangular table to the left side of the room that contained a lot of clutter. Paperwork was scattered on the table while other paperwork was stuffed into folders. There were many cases of documents and belongings on the floor adjacent to the table with many stacked on top of each other. Charlie stated that when he moved from his last parish to this location, which was approximately two years ago, there was no place to store his belongings. Overhead lighting was observed to be turned on by the entrance. A table lamp in between a stationary chair and recliner (which he prefers to sit in) was positioned close to the window. The blinds to the window were opened and raised, allowing natural sunlight to enter the room. The windowsill in the living room was adorned with framed pictures of his family. The

flooring to his apartment was a solid tan-colored carpet with no busy patterns. In his living room was a large TV screen on a shelf in a bookcase and a desktop computer that sat on his large rectangular table; Charlie stated he does not use either of them. A rolling swivel chair with a plastic floormat was observed in front of the desktop computer. A fire and police cap graced the top of another tall bookcase. As for adaptive devices, Charlie relies on his eyeglasses and the use of an 8x10 page magnifier to read documents. A tour of his apartment was provided to the researcher, and Charlie held on to fixtures and furniture as he walked around. He invited the researcher to see his bedroom where he apologized for not making his bed. Above a tall bureau in his bedroom, framed pictures of family were displayed. His daily medication pill dispenser was on another bureau, and he demonstrated to the researcher that he could use it. He stated that a medication nurse fills his dispenser weekly. A folded walker was observed along a bedroom wall. When asked if he uses it, he stated that he is stubborn as he has fallen many times in the past and should use it but does not. Everything in his apartment is strategically set up so he knows where everything is. The chapel, where Mass is said daily before breakfast, is about 100 feet from his room. Charlie stated he is a co-celebrant at Mass, sits in the same seat (as all the priests do), and does not need to read any scripture because he has it committed to memory.

When asked about his visual impairment and any other health conditions, Charlie stated that he has cataracts in both eyes and was diagnosed with glaucoma about two to three years ago, leaving him with no vision in his right eye and losing vision in his left eye. In addition to the cataracts and glaucoma, he stated he has diabetes, gout, osteoarthritis, a permanent pacemaker inserted in January 2020, and a history of a cervical spine fracture resulting from an accident sustained in the line of duty with the fire department. He stated he had surgery and resided in a rehab setting for approximately a year. He participates in social functions but prefers to eat his

meals in his room, as he is afraid of spilling something on the table because he cannot see.

Charlie expresses no sadness and accepts his vision loss, stating it is God's way of telling him he has done enough and it is time to rest. Being alone does not bother him, as it allows him more time to pray and rest.

### *Audrey*

On the day of the interview, Audrey greeted the researcher at the door to her residence. The door was slightly ajar as if she knew the researcher would be there soon. A colorful ceramic frog was placed on a ledge to the left of her residence door and framed needlework (which was done by her) was on the wall to the right. As she greeted the researcher, she stated that the frog was there to help her find her room when traveling outside of it. As a self-proclaimed frog lover, Audrey's space contained more than 150 frogs, which were noticeable throughout her residence. As the researcher followed the participant inside, the researcher observed that Audrey walked very slowly, gingerly, and methodically, knowing how many steps it would take to go from one location to another. She guided the researcher to a study room where the interview would occur.

Audrey is an 89-year-old White non-Hispanic female who is married and has two children. She attended three years of college but stated she needed to curtail her studies to assist her mother in paying the rent as her father was dying. Had she completed her coursework, she would have studied sociology or anthropology, as Audrey states she is a people person. Audrey worked in advertisement "buying time spots" in radio and television for Kellogg, Lincoln Mercury, and beer companies. Audrey has been living at her current residence for almost 11 years and considers herself one of the "pioneers" of the facility. Audrey stated she is visited by friends and family occasionally.

Audrey appeared well groomed and was wearing a crisp, mustard floral, short-sleeved

buttoned blouse, matching mustard-colored pants, and tan-colored slip-on rubber-soled shoes.

Audrey stated that her daughter buys all her clothing, which is color coded, and arranges them on hangers for her. Her spouse, who resides with her, helps her pick them out as she can dress herself. Her hair was blond, short, touching her shoulders, and combed to the side, revealing a faded discolored area over her right eyebrow. She stated the injury occurred as she tripped over uneven pavement while walking around the grounds. Grooming appeared to be important to her as she stated she has her hair done on Tuesday and her nails done on Saturday. She was not wearing eyeglasses at the time of the interview.

Her living quarters were spacious, consisting of a large living room, bedroom, and study area where she conducts most of her business. The rooms were lined with a solid beige-colored carpet without any throw rugs. Stains were noted on the carpet outside of the kitchen area, which she said resulted from husband who tends to leave beverage caps not tightly sealed. When asked about her visual impairment and any other health conditions, Audrey stated she has “AION” (anterior ischemic optic neuropathy) in both eyes in addition to ocular hypertension that was diagnosed in 2002. She first noticed that something was wrong when she was reading a book and suddenly and without pain, some of the words on the page disappeared. She stated it was “not all words just some and some were scattered.” She stated she saw an ophthalmologist immediately and it took more than one specialist to diagnose her. She states she was relatively stable until 2012 when she had a surgical procedure that “affected her physically, visually, socially.” As a result of this, she stated she has no sight at all in her right eye and maybe 15% in her left eye. She is considered legally blind. In her study room, two TVs were noted: one which she uses exclusively for news, travel, and weather, with Channel 12 automatically programmed for her. The other TV is not used at all. A large magnifier machine and signature template helps her read

and sign documents, as the lettering on most documents is too small to read. She stated she relies more on the machines than a handheld magnifier. A clear scanner reader with audio was stationed to the left of her large magnifier machine. This assists her in having documents read to her. A large phone was located to the left of the scanner. Prior to the researcher's arrival, Audrey stated that she was listening to an audiobook and then proceeded to show me the equipment. She pointed to the raised color-coded rubber buttons that were affixed to both the phone and recorder so she would be able to select the correct buttons for different functions. This same color-coded rubber-raised buttons were also placed on her microwave panel. She stated she does not cook because she cannot see the stove. In her study, an Echo dot was observed on a desk while an Alexa device was in another room.

Audrey stated that she likes to be productive and likes to have a good time. She loved to sail but needed to give up her sailboat because of her vision. Pictures of her sailboat were framed and prominently displayed on the right side of her desk. Due to the pandemic, Audrey missed socializing with others. Because of her visual impairment, she reported that her other senses are heightened, specifically her auditory, tactile, and especially her sense of smell as she can detect when things are "bad" in the fridge. While she cannot see faces, she has relied on voices and dialects, so she knows exactly who she is speaking to. She receives a calendar of activities and relies on her large magnifying machine because she cannot read the print. She performed a demonstration of the magnifier machine to the researcher and even with the device, the print is blurry and difficult to read. According to Audrey, "the body is an amazing thing" and "you have to keep your sense of humor."

### ***Ronnie***

The researcher received a call from this participant who was given the study research



flyer at a Vision Support Group that she attends at her residence and stated that she would like to participate in the study. An appointment was made for a face-to-face interview on a day, time, and location that was convenient for her. As per the tone in her voice, Ronnie sounded very enthusiastic about the study. The interview was scheduled to take place at her residence. On the day of the interview, the researcher knocked on the participant's door three times without any response. A TV could be heard from inside her apartment. The researcher became worried that she did not answer the door, knowing that the interview was scheduled for that day and time. A phone call was made by the researcher to her cell phone, which went directly to voicemail. The researcher knocked on the door again. A voice could be heard from within the apartment saying "I'm coming" and the door opened. She apologized for the delay and stated she was in the bathroom. The researcher shared her concern for her, and they both began to laugh. She welcomed the researcher into her apartment where she lives alone. A sense of warmth was felt as the researcher entered the apartment. The walls were painted in light beige with light beige wall-to-wall carpet observed throughout the apartment. The walls were decorated with artwork prominently displayed throughout the spacious living room. A large window that overlooked the grounds was decorated with curtains and valences. The blinds, which were opened and raised, allowed the apartment to be illuminated with natural sunlight. Throughout the living room, all light fixtures were observed to be turned on. There was plenty of space to maneuver around, and the space was intimately decorated by her, which she was proud of. As the participant walked around the residence, her gait was observed to be slow yet careful (as she stated she had previous spinal surgery), and she walked gingerly to the table and chairs where the interview was going to be held.

Ronnie is an 83-year-old White non-Hispanic female who has lived at her current

residence for 10 years. She is widowed and has five children who would come and visit often prior to the pandemic. She is a college graduate, having earned both a bachelor's and master's degree, and worked as a teacher before moving into an administrative role. Ronnie was neatly dressed and well groomed, wearing a lilac-colored pullover polo shirt with black elastic-waist pants. She wore black "velvet like" open back shoes with non-skid soles. She stated she did not comb her hair prior to the interview (which she was embarrassed about), yet her hair was in place. Although widowed, she wore a wedding band but did not wear a watch and stated that she relies on her iPhone for the time. She was not wearing eyeglasses, yet they were placed on the table.

When discussing her vision impairment, Ronnie stated that since the age of 26, she was diagnosed with "aging eyes." She stated she initially noted spots in her eyes. She said she did not know what it was but learned to live with it. It was not until she was on a trip to Europe that she had a "rain shower" of blood in her right eye. She stated that she ended her trip and came home immediately, where she saw a retina specialist who thought her retina may have become detached, but she did not believe it did. Ronnie stated she now has had ARMD for the past 15 years. She says her vision has not become an impediment until about 4 years ago when it was discovered that she has a cataract, which was not "ripe" enough to do anything with. She stated that her ability to read and sew have been compromised. She uses a magnifier to help her read, which cost her about \$22, yet stated that larger magnifier machines can cost around \$650. She no longer sews as she cannot see the eye of the needle. She liked to watch films in the auditorium but found herself becoming reliant not only on the visual but also on the subtitles because she could not keep up with what they were saying. She stated that with some movies, the subtitles went by too fast for her and she would miss the whole point of the story. She became

accustomed to it as it kept her connected with others. At the table where the interview took place, the table was covered with a white tablecloth where a copious amount of neatly stacked Zoom papers and folders sat on top of it. As per Ronnie, the folders are color-coded so she can identify what is in each one. In a tour of the apartment after the interview, two Alexa devices were noted: one in the living room and another in her bedroom. She uses her iPhone (where a large font is used) and its many apps to conduct business especially buying and selling stocks (prior to the pandemic, she became interested in the stock market). She relies on the phone as she cannot follow the stock market zipper on TV because of her vision.

A tour was provided to her kitchen where red-raised round buttons were found on her microwave so she could differentiate the settings between on/off and cook. She stated that LED lighting was installed in her apartment and made a big difference. Ronnie stated she is independent with her ADLs and can ambulate with the use of a walker when outside of her apartment. She uses handrails to guide her when necessary. Elevator access is directly across from her apartment. Ronnie expresses being grateful for her Vision Support Group as it allows ideas, concerns, and accessories to be shared with one another. She stated that her vision is not as bad as the others in the vision support group, and she is realistic knowing the inevitable will happen. She stated she has “lived a good life, enjoys life and feels included in everything.”

### ***S Mary***

S Mary was recommended by administrative staff in one LTC facility as someone who was willing to participate in the researcher’s study. An appointment for the interview was set up with the social worker as to a date, time, and location convenient for the participant. On the day of the interview, the researcher was provided with her room number and proceeded to go to her room, which was located down a long corridor and was the furthest away from the nursing

station. The researcher knocked on the closed door and waited for a response to be invited in. The researcher heard a voice calling from within, signaling her to come in. When the researcher entered the room, the participant had two guests visiting her. She asked the researcher who she was and became embarrassed as she forgot about the interview. The researcher asked her when she could come back, as she appeared happy to have her family visit and she wanted her to enjoy her guests who had traveled from afar. Another day and time were selected, and the participant wrote down the details on paper so she would not forget again. A copy of the participant letter was left for her.

On the day of the interview, the researcher headed to her room where the door was open. The participant remembered the researcher's face and invited her into her room. S Mary was in a standing position and offered the researcher her chair to sit on while she sat on her rollator.

S Mary is a 100-year-old White non-Hispanic female who is unmarried and without children. She is a member of a religious group of Sisters and entered the convent after graduating high school. She is a college graduate and has a degree in childhood education. For a short period, she helped children with reading. Her vocation as a Sister has been her life's work where she spends time attending Mass and praying, which is very important to her. She stated she came to the facility in 2020 and can't recall the exact month, but knows she was on another unit before transferring to her current room. She stated she celebrated her 100th birthday while residing in her current room, which was approximately five months ago. S Mary was appropriately dressed, wearing a blue long-sleeved sweater over a collared olive floral print buttoned blouse with floral pants to match. Her shoes were taupe with Velcro straps. Her gray shoulder length hair was neatly combed. She resides in a private room, as all residents in the facility have one. Her room had plenty of lighting with a light over her bed, her sink, and a light fixture on the wall to the

right side of her bed. The walls were painted beige and decorated with canvas paintings, mostly of birds (cardinals) and a barn all drawn by the participant. Her bed was in the center of the room, partially made as the bedspread was neatly folded on a chair by the window. The grey-patterned curtains to the window were half drawn, allowing natural light to enter. Across from the head of her bed was a large-screen TV affixed to the wall. Below the TV was an illuminated digital clock displaying the month, day, and year, in addition to the time. A battery-operated clock wall clock was noted to the left side of her window; however, the time was not correct. The overbed table was initially observed across her bed and her lunch tray was still on it. No food was left behind; in fact, some food was noted on her blouse, as no clothing protector was worn. A bureau was noted to the left side of her bed with a multi-draw storage cabinet adjacent to it. A rolling walker was placed against the same wall. Religious ornaments and pictures were displayed in her room on a small bureau to the right side of her bed. Rosary beads were draped over a picture of the Blessed Mother. A large-buttoned phone was on the same bureau. When asked about her visual impairment, S Mary stated she does not recall getting a definitive diagnosis but stated she has no vision in her right eye and that the loss was gradual, most likely from damage to the blood vessels in her eyes. She stated she has peripheral vision but cannot see anything directly in front of her. When asked if she could see the researcher, she said yes but not clearly. She stated she has been receiving eye injections for the past four years about every eight weeks. S Mary stated she likes to paint, but since she sustained a fracture to her elbow because of a fall, she lost control in her hand and use of her fingers, making it difficult for her to write or paint.

According to the participant, the pandemic changed everything. No visitors were allowed, she could not congregate with three other Sisters on her unit, and she could not dine in the main

dining room. Her 100th birthday could not be celebrated with family or other members of her religious community, but a celebration of her day via Zoom was arranged by her director, allowing other Sisters of her congregation to attend. She stated she does not enjoy reading as much as she did before, as she finds it hard to get adjusted to (i.e., having to hold a book with one hand and use the magnifying glass with the other) but likes to play Bingo, games, and do puzzles. Because of the pandemic, living alone in her room and not being able to congregate with others made her feel lonely. During the interview, an announcement for Mass was made.

Attending Mass was important to her. It was at this time that the formal interview ended and the researcher escorted her to the chapel. Her gait was steady while using her rollator. We continued with a conversation as we walked down the corridor. When asked if she can perform her own ADLs, she stated she likes to be independent, as she can ambulate, toilet, feed, and dress herself without assistance, needing help only with bathing and putting on her stockings. She stated being independent is part of her problem, as she has fallen many times. As this researcher brought her to the chapel for Mass, she stated she primarily sits on the left side. She stated it gets crowded in other aisles and she wanted to avoid crowding with her rollator. As the researcher said goodbye to her, she stated she would pray for me in her intentions.

### *S Janice*

S Janice was recommended by administrative staff in one LTC facility as someone who was willing to participate in the researcher's study. An appointment for the interview was set up with the social worker as to a date, time, and location convenient for the participant. On the day of the interview, the researcher was provided with her room number and proceeded to go to her room. When the researcher arrived at her room, the participant was not there. According to the staff, the participant was in the main dining room with other residents having lunch. The

researcher headed to the dining room where the participant was dining with other members of her congregation. S. Janice had already completed her meal. The researcher spoke with the participant's director (who was aware of the interview) who informed the participant that the researcher arrived. The researcher transported the resident, who was seated in a wheelchair, back to her room for privacy. The participant was informed about the study and was willing to participate.

S Janice is a 91-year-old White non-Hispanic female who is single and without any children. She is college educated, having earned a bachelor's and master's degree. She was an elementary school teacher who taught math in grades 1-8 but considers herself a reading specialist. She was transferred to the facility from a residence where she lived with other Sisters. She appeared to be overdressed but stated she was comfortable. She wore tan canvas non-skid soled shoes that appeared to be stained with food. Her hair was white and combed back, exposing a wound to the center of her forehead. S Janice lives in a single room. She was wearing glasses at the time.

A light fixture was noted over her bed, on the wall to the right of her bed, and over her sink. A large window overlooking the courtyard was decorated with a half-opened grey-patterned curtain, allowing natural light to brighten the room. A tall, large bureau was observed to the left side of her bed with framed pictures of friends and family on top of it. On the right side of her bed was a smaller dresser with three drawers where an audiobook player was placed on top. A small bookshelf was noted in the corner of her room adjacent to the window where religious figurines sat on top of a white-laced doily. Her bathroom was across from her bed and a recreation calendar was taped to it. A posting of her upcoming medical appointments was taped to the left side of the bathroom door. While the font was large, S Janice stated she cannot read

that or the recreation calendar. On her bedside table was a small black plastic-handled basket that secured items such as the TV remote, cell phone, pens, paper, and a magnifier. A tissue box was located next to the basket. A battery-operated clock was observed on the wall outside of the bathroom door, but the wrong time was displayed.

When this researcher asked the participant about her vision impairment, she stated she has a “deterioration” and stated more than once that she was legally blind. She stated that she has had this impairment since she arrived at the facility approximately two to three years ago. When asked if she could see the researcher, she said she could not see her face but knew that she was wearing glasses. When asked about the eyeglasses that she was wearing, she stated that they “don’t mean anything to her” as she can see just as well if she takes them off. She stated that the glasses have not been changed. When asked about the TV, S Janice said she cannot see the TV and just listens to it—specifically to Channel 7 news and Jeopardy. When asked how her vision loss has affected her life, she stated she cannot read and use her telephone, as she cannot see the buttons on it. She stated her friends and family will call her and if she needs to make a call, she will have someone help her. S Janice made a point of letting the researcher know several times that the other Sisters do not know that she cannot read. The researcher assured her that she would not share that information with anyone. Reading was something she loved to do but had to stop because she could not see. She listens to audiobooks and can operate the player as it has fairly big colorful buttons. Larger print books have been provided, but she again stated that she cannot read them. She is aware of the location of her call bell and demonstrated how to use it in the event she needed help.

She verbalized that she needs help with ADLs, as she is unable to transfer, dress, perform personal hygiene, and toilet herself. She stated she does not select her own clothing for the day



but can feed and groom herself, washing her face and combing her hair. A mirror was observed in one of her bedside drawers, yet she states she does not use it. She stated she can feed herself, knows where the food is on her plate, and does not eat anything that she cannot recognize. She is reliant on a wheelchair, as she is unable to get up, ambulate, or propel her chair by herself.

When asked about the one thing that she misses most because of her vision, she said it was not being able to read, as she would read novels, the newspaper, and “anything she could get her hands on.” She has a magnifier, but she said it “doesn’t work.” She stated she enjoyed getting together with the other Sisters, especially at meals, but due to restrictions placed by the pandemic, she was not permitted to congregate with them. She said this made her feel lonely. In addition to not being able to read, she was able to drive, but because of a car accident, her car was taken away from her. She said she was able to see at that time, but that her vision was progressively starting to fail. When asked how she felt about having her car taken away, she said she felt like “2 cents.” She enjoyed attending movies and playing Bingo, but while she could see some of the movie, she was unable to see the Bingo card. Because of the pandemic, she stated there were no activities for many of them and some were now shown on TV. Due to her vision, she stated she most likely would not attend programs anymore. She enjoys going to Mass and attends as often as she can. When asked if there was anything else she would like to share with me about her eyes, she simply said “I wish I had better ones.” She asked if the interview could stop as she was tired of it. The researcher then transported her to the chapel for Mass.

### ***S Regina***

S Regina is a 92-year-old “strong” (i.e., determined, and independent) White non-Hispanic female who is single and has no children. She is a college graduate, having earned both a bachelor’s and master’s degree. She previously worked as a teacher and taught primarily math

and science in grades 4 through college. She has been living in her current residence since April 2020 and has friends and family that she keeps in touch with mostly via telephone due to pandemic restrictions on visitation. Black-framed bifocals were worn in addition to a black-banded watch on her left wrist. Her skin appeared to be thin and fragile. She stated she is independent in her ADLs and can ambulate without the use of a rolling walker but uses it as per recommendation of the staff. She reported that she can feed, dress, transfer, and toilet herself and yet needs assistance with showering. S Regina resides in a single room and loves not having a roommate, as she has not had one in over 30 years. The walls of the room were painted in a beige color. The floor was clean, tiled, and free of clutter. The participant's bed was in the center of her room and to the left of the doorway. Above her headboard was a bright overbed light with another one observed over her sink to the right of the entranceway. Her bed was neatly made with a beige-colored blanket and without a bedspread. The edges to the footboard of her bed were padded with black foam. Across from the head of her bed and affixed to the wall was a TV that she uses to listen to the news. Below the TV affixed to the wall was an illuminated clock displaying the day, time, and date, which S Regina stated she cannot read unless she gets close to it. Across from the entranceway to her room was a large window overlooking a courtyard. A grey-patterned curtain was opened halfway, allowing natural sunlight to enter the room despite being a dark and cloudy day. A battery-operated clock was on the right side of the wall next to the window but was not working. S Regina stated she is a plant lover and had two plants stationed on a small round pedestal stand near the window. On the left side of her bed was a two-drawer bureau with a decorated table lamp and many books and figurines on top of it. On the right side of her bed was a large, tall bureau where tissues and disposable briefs could be seen. A picture of her sister (who is also a resident and a Sister) was hung on the wall to the left of the

doorway. S Regina is left-handed and sits to the right of her bed where her bed serves as a desk. Noted items included a tissue box; pens; a caption-call telephone; recreation calendar; and a large font-typed notice with this researcher's name, date, and time of her interview appointment. Typed notes and reminders were posted to her walls in a very large font. When asked what led to her transferring to her current residence (as she lived with another Sister in an apartment in Queens, New York), she stated that her age was beginning "to show." She was independent enough to cook, but because of her vision, her roommate stated that if she continued to cook, the gas stove could be left on and a fire could erupt. She also mentioned that she was repeatedly falling and her roommate was not going to be able to care for her. She was told she needed to be sensible. She says the hardest thing about being transferred to this facility was that she misses the glorious ocean and sunset where she would walk on the boardwalk every day and say her rosary.

When this researcher asked about her visual impairment, S Regina stated that it was the only health condition she had except for her "poor feet." She stated she has ARMD, where the onset occurred sometime in her 80s. The biggest change she noticed was that she no longer could take her book and read. She stated that she used to be a reader and took a book with her everywhere she went. The hardest thing for her was when opening the book, she could see the words but she would have difficulty figuring out the whole sentence. While she uses a large, flat, lightweight magnifier, which she says is helpful and convenient (as it assists her with reading her books and magazines), she said she feels "heartbroken." She finds larger print books are helpful, but they are expensive. She had a laptop but lost interest with it, as the print is too small and she cannot read it. She mentioned that she used to drive but gave it up years ago because she was afraid of getting into an accident. Driving gave her freedom, which to her "doesn't matter anymore." She stated she is not one for group activities where discussions take place. She liked

to do puzzles but no longer can because she cannot see the boxes. She stated she was never a fan of Bingo. She enjoys listening to music and would attend concerts but of music that she would prefer to hear. She had music cassettes given to her by another Sister but never used them, as she does not have time. As for her eye vision, S Regina said she does not want to live until 100. She is ready to go home and that she has had a good life. She says she knows “it’s” going to happen (blindness) and that “there’s no use in fighting; you learn to live with it.” At the conclusion of the interview, S Regina with the use of her walker brought this researcher to meet her Sister before escorting me to the elevator.

### ***Dorothy2***

Dorothy2 is a 92-year-old White non-Hispanic female. She is single and has no children, but she has family members and friends who come to visit her or talk with her via phone. She does not use a cell phone but has a basic phone that is located on a table to the left side of her bed. She is a college graduate who has earned both a bachelor’s and master’s degree in Spanish. Her previous occupation was as a school teacher, having taught all grades, including high school and college, primarily in Brooklyn, Queens, and Long Island, as well as in Puerto Rico. She was neatly and appropriately dressed for the season, wearing a striped sear-sucker blouse and matching sear-sucker elastic-waist pants. Her feet were adorned in tan rubber soled slip-on shoes. Dorothy2 resides in a single room where she states that she is happy because she likes a solitary life (Dorothy2 revealed to the researcher that she was in the convent but left for personal reasons) and is not one to socialize because group meetings do not appeal to her. She stated that she eats her meals in her room versus the dining room because she uses a rolling walker and the elevators need to be accessible to those who rely on wheelchair transport. Her bed was beautifully decorated with a multi-colored floral square quilt-like bedspread with two matching

navy-blue covered throw pillows on top of two bed pillows. To the right of her bed was a tall dresser with framed family photos on top. The walls to the room were painted in a beige color and the flooring was clean, clear of debris, and tiled. A working clock was noted under her TV that was affixed to the wall across from the head of her bed. A calendar of activities was taped to the wall, along with a flyer denoting a reminder for using the rolling walker. When asked if she could see and read them, she stated she could not unless she gets close to it. Her bed and recliner are close to the bathroom, which she shares with another resident in the adjacent room. While she tries to maintain independence in her ADLs (noting that she needs help with showering but can wash her own hair), she will ask that roommate for help if needed. A religious painting and crucifix were hung on the left wall of her room closest to her door. Her call bell was within reach, and she showed the researcher where it was and how she uses it. On a small bedside table with drawers observed to the left side of the bed, there was a phone and a battery-operated transistor radio. Dorothy<sup>2</sup> stated that she uses the radio for the time, news, and weather. She said she can see the TV in her room but uses it primarily for news.

When asked about her visual impairment, Dorothy<sup>2</sup> stated that she had ARMD diagnosed “a while ago.” She initially discovered that she had a problem when she went for glasses, which she said were more like reading glasses and only magnified things. She then stated at that time that she had early cataracts that were removed, yet she saw no change in her vision. It was at this time that she realized the macular degeneration had gone “far.” In addition to the ARMD, other health conditions include hypertension (which is controlled with medication) and acidophilus (which she takes for her gastrointestinal system). When asked what she misses most because of her visual impairment, she stated her ability to read and no longer being able to drive. She recalled an incident where she had a dangerous driving experience and because of that she gave

up driving immediately. Driving, as per Dorothy2, allowed her freedom—the ability to get up, get to her car, and go anywhere she wanted. To be free is something she misses most. She is a bird lover, and bird-shaped suncatchers were affixed to her window. She made a point to say that she does not like caged birds as they should be free. She cannot see faces well but can ambulate in and out of her room with her rolling walker and ambulates a few feet at a time. She likes to walk, for it keeps her body and mind working. She has accepted knowing that there is nothing that can be done about her eyesight and feels she is in the best place possible for her. At the conclusion of the interview, Dorothy2, knowing not to forget her walker, escorted the researcher to the elevator.

## Themes

Themes were identified and presented in the participants' own words. Based on the analysis of the data, it was evident that the concept of *adaptation* (as per the Roy Adaptation Model) was present in each of the five essential themes and sub-themes. Those essential themes identified included (1) Life Interrupted, (2) The Impact of Vision Impairment, (3) Adaptation to the New Normal, (4) Embracing Relationships, and (5) Transcendence into the Future (see Table 3).

Table 3

### *Essential Themes and Sub-Themes*

Essential Themes	Sub-Themes	Higher Formulated Meanings
Life Interrupted	<ul style="list-style-type: none"> <li>• Getting a diagnosis</li> <li>• Emotionally overwhelming</li> <li>• Lack of education</li> </ul>	Receiving a timely diagnosis can prepare one for the future. Although the diagnosis may be expected, it can be emotionally overwhelming to those experiencing it, as diverse emotions exist with the livelihood of those affected. In addition, an understanding of the diagnosis is not always understood by the

		patient experiencing it.
The Impact of Vision Impairment	<ul style="list-style-type: none"> <li>• Inability to recognize people</li> <li>• Concerns about safety and fear of falls</li> <li>• Inability to drive</li> <li>• Need for more lighting</li> <li>• Loss of freedom</li> <li>• Effect on enjoyable activities <ul style="list-style-type: none"> <li>- Knitting/Sewing</li> <li>- Sailing</li> <li>- Reading</li> <li>- Cooking</li> <li>- Drawing</li> <li>- Playing Games</li> </ul> </li> </ul>	For those experiencing a visual impairment, life as “previously known” may have a significant influence on “moving forward.” Vision impairment can have an impact on activities that were enjoyable in the past and often taken for granted. Changes in one’s day-to-day activities may be curtailed or changed as a result.
Adaptation to the New Normal	<ul style="list-style-type: none"> <li>• Recognizing limitations</li> <li>• Learning new skills</li> <li>• Improvising</li> <li>• Use of devices and gadgets</li> </ul>	Visual impairment can often lead to recognizing limitations, improvising where necessary, seeking out solutions, and adjusting to stay socially connected. This permits them to function independently to maintain a quality of life.
Embracing Relationships	<ul style="list-style-type: none"> <li>• Support of friends</li> <li>• Support of family</li> <li>• Support of staff</li> <li>• Support groups</li> </ul>	Relationships with family, friends, staff, and groups can be helpful to those experiencing a visual loss in recognizing they are not alone. The support provided while learning from each other can assist in reaching a positive transcendence into their new life.
Transcendence into the Future	<ul style="list-style-type: none"> <li>• Attitudes related to vision loss</li> <li>• Looking beyond impairment</li> <li>• Embracing the future</li> </ul>	Those with a visual impairment often ponder on how this will impact on their future. One’s attitude and how they look beyond the impairment can lead to a positive and realistic transcendence into the future.

### ***Theme #1: Life Interrupted***

Receiving a timely diagnosis can prepare one for the future. Although the diagnosis may be expected, it can be emotionally overwhelming to those experiencing it, as diverse emotions exist with the livelihood of those affected. In addition, an understanding of the diagnosis is not always understood by the patient experiencing it. Many participants in this study shared their

experiences, which are described below.

### **Getting the Diagnosis**

Alan received confirmation of his cataract diagnosis in May 2021 after a consultation with his eye specialist. He was asked by the researcher if there were any other problems other than the cataract. He replied,

We don't know. He did mention that there was something beyond the cataract that he could not see until the cataract was removed, but there was something else brewing, and he doesn't know the nature of it until the surgery is completed.

He receives eye drops for dry eye three times during the day, and at night, he gets a special eye drop "for incipient stages of glaucoma in the right eye." He stated that his cataract has gotten worse and his left eye is not as sharp as it was but "thinks that's with the advancing years."

Audrey stated that she was diagnosed with anterior ischemic optic neuropathy (AION), a condition that is very rare. She described that "the very tiny nerves behind the eye, not the eye itself, behind the eye all of a sudden do not get blood (flow) anymore." She proceeded to tell the researcher how it started:

I was reading a book in the evening, I was sitting in bed and I'm reading and all of a sudden, no pain, no nothing. Some of the words on the page disappeared, not the whole page, just some words, scattered words disappeared. And it was on a, I guess a Sunday, so I went to an ophthalmologist on Monday, not knowing what it was; he didn't know what it was. It took the third ophthalmologist who said, "I think it's AION."

Audrey stated it was not until surgery in 2012 (for a different ailment) that her vision impairment had a profound impact on her. According to Audrey, her vision impairment "affected me



physically, it affected me visually, and the sight went a lot more in a short period of time.” She added,

This pandemic has hit me physically, visually, socially, in every respect that I've really lost a good part of it during this last year and a half. I have no sight in my right eye at all and I have maybe 15% in my left eye. I had no pain, no flashing light, nothing. It just happened. It's gotten progressively worse at that point. I could still see fairly well, you know, not as good, but my, my sight has diminished considerably.

Audrey further stated “since that time, about five years ago, I also have glaucoma,” for which she states she takes drops for. Audrey informed this researcher, “As for the other thing (AION), they can't do anything about. I went to three different ones (specialists). So that was the third one that diagnosed it.”

Charlie revealed he had a cataract that was discovered while he was in St. Rose (a Church parish). He stated the eye doctor told him that, “Oh, in Thailand. I know it's very hot, very warm. And when you are young, you might not take good care of your eyes. Normally, they use sunglasses a lot here, right?” He stated that in Thailand, where he is from, they do not use sunglasses because it is so hot. He attributes that to his vision impairment.

So, that's why the vision, I have cataract surgery many times. And then, when I was in Floral Park, I have met one special eye doctor. And then, I have laser surgery because they found out that I have glaucoma. And then, laser surgery many times. And then finally, he introduced me to a special eye doctor, the surgeon in Hempstead. And I have surgery around March, this year. The surgery in the good eye, because the bad eye, I have been blind already.

He mentioned that if he closes his right eye, “No vision. If I close this one, forget it.”

He now has discomfort in his eye for which he is scheduled to see the eye specialist again. He believes that his vision impairment is the will of God.

I think God wants me to close my eyes and to pray more, because I was so active when I work with religious education children, school kid children, wherever I go, and fire department, the police department, so everything. I run around as the young guy, but now, maybe God wants me to rest and close your eyes and say a prayer.

When asked what diagnosis was originally given related to his vision, he initially said it was cataracts but now they found glaucoma. Regarding the cataracts, he eventually had Lasik surgery numerous times, but when the glaucoma was discovered about two to three years ago, he was told by the eye surgeon, "It's going to be getting better." He added, "Of course, my good eye is good, but my bad eye is worse." He was asked if he was able to see the researcher who was sitting in front of him. "Yes. Yeah. Sometimes it's blurry. And it's watering. It's tearing a lot. I mean, I don't know why. That's why I use a lot of tissue." He went to see the eye doctor years ago and was introduced to his student, a surgeon, who told him, "It's going to get better." However, despite the surgery in his good eye, "They try to protect it because the bad eye will come to take over."

Dorothy was asked by the researcher if she had been given a diagnosis as to her vision impairment. She initially replied, "Not particularly, no. I did not get very good medical attention or advice."

Dorothy<sup>2</sup> initially saw an ophthalmologist when she noticed a change in her vision, which prompted her to get glasses. After seeing the doctor, she was told that she was legally blind. Upon hearing that news, the doctor told her that to be sure, she should get in touch with the Guild for the Blind, which she did.

They came to the house, and they spoke with me and talked with me, and they agreed that

I was...legally blind. They gave me some information. Don't do this and try that. Not much of it was of any help to me because, I was well on my way of taking care of myself and that it didn't come upon me overnight. So, I was like working into it.

When asked if the doctors mentioned what caused the condition to happen, she replied, "I had macular degeneration and it was in the family. My mom had it, my sister Eleanor had it. So, in this family for women, the three of us had it." She continued,

Retinitis is the bad thing because, that's your retina and then, once the retina goes, that's like the camera of your eye, you don't see, but I still have use of that. I still can see... and it's ever so slightly gets worse. Now and again, I can feel a change. But I'm 92, not 16. So, I don't expect it to reverse itself.

She was asked if she received glasses, as she was not wearing any at the time of the interview. "No. They don't do any good." She continued to say that even when she got them, they were reading glasses and all they did was magnify. She disclosed what the doctors told her.

Oh, you have cataracts. You're going to have cataracts. Now, I was already living with my mother. I was out of the community. So that was after 63, I guess. And I went to the doctor, and he took the cataracts off, and they said, "Oh, you're going to see." I didn't see one iota better after the cataracts were removed than before. That was the awakening that the macular degeneration had gone that far already.

One doctor told her. "Look, there's no guarantee that you will see better. But it will indicate to you what direction you're in." That's when he told me to go to a retinologist, to see how far that was going to go "because that's your next step."

When asked about her diagnosis, she said, "I have macular degeneration at the present

time. Both the wet and the dry kind together.” She required additional light, was using the wrong color thread when sewing, and already “knew really what it was.” Judy was not shocked by it, and that “it was very gradual until the last year. It was going along like this and all of a sudden, it took a dive.”

Larry was asked about his visual diagnosis. He simply stated, “The diagnosis is that I'm going blind. That's my diagnosis.”

I'm blind in my right eye, except for peripheral vision, and the left eye is fairly decent. At least it was 50/20 or 20/50, whichever one they—I didn't even know that I was blind in my right eye. I just was seeing out of my left eye, and I didn't even realize it until I went for an eye exam, and they told me to read the chart. Not only I couldn't read it, I couldn't even see their fingers. They held up fingers, and I was shocked, not because I didn't anticipate it, but I was shocked because I didn't realize it.

Larry went for eye examinations and explained,

First of all, my ophthalmologist was a client, so when I would go there periodically...and at that time I did not have glaucoma, but my pressure was 20, okay, which is just borderline. So, they put me on drops. I've been on drops for I don't know how long.

When asked if he believed he may have glaucoma in that eye, he replied, “Oh, I know I do. I mean, they told me I do. I have glaucoma in both eyes.”

Margie stated, “I have small cataracts. They're too small right now. They don't require operations, but down the road, they will.” She was diagnosed without any concern to the diagnosis “within the last 5 to 10 years.”

Marlene was asked about her visual impairment and the diagnosis attributed to it. “I have a cataract that must be taken care of.” She further stated in an anxious tone,

I wasn't able to go out because of Covid. So, I'm like a year and a half behind. I mentioned to the doctor that I have a problem, especially during the night when my eyes decide to close. And he said he'll take care of it in the next visit.

However, she was unaware of when that would be. The cataract was in the left eye and that “the right eye I did (have surgery) a couple of years ago.” She was asked if she could remember at what age the cataract occurred. “I had it start two years ago and gradually it became worse.”

Mary Ann was admitted to the LTC facility within the past two years. Prior to that time, she had not seen an eye doctor. She said,

An eye doctor from here started to check them, and he said, ‘Oh, you got cataracts. But they weren't bad.’ Next thing I know, they're getting worse and worse each day. Like I can't see; like now, it's just a blur.

When asked if she could see this researcher, she replied, “I can see you, but you're a blur. So that's how I found out about the cataracts.” She was asked how she felt about the discovery of the cataracts. “It's a pain in the butt. It's gotten worse, like where everything is blurry, and I can't see. It's very frustrating is what it is.” She happily reported that she was scheduled for cataract surgery the following week.

Raymond was asked about his eyesight and any visual impairments. He does not believe he has a vision problem and yet found it difficult to see and focus on the researcher who sat adjacent to him in a chair next to his bed. In addition to this, bifocal glasses and a large-screen TV were observed in his room. He was asked if his MS had deteriorated since his admission into the facility: “Oh, yes. It's taken away a lot of activities, a lot of functions that I would be in. I used to go around in different areas to photograph, but since the MS, I couldn't go around as much, or as far.” He denies that his vision was affected by the MS.

Ronnie stated that when she was 26 years old, she noticed spots in her eye. She was asked to describe what she was experiencing: "As I would read, letters would disappear. I went to the doctor, and he told me I had, he called it aging eyes." She really never knew what that was, but she learned to live with it. She shared an experience she had while on a trip to Europe.

I had a rain shower of blood in one eye. I think it was this eye, the right one. And I came home immediately. They wanted me to go to see someone in France and I said, "No, I'm going to go home." I got home and I saw a retinologist and he told me that my retina had...He thought it may have become detached.

While she does not think the retina detached, she continued to stay with the specialist, subsequently developing wet macular degeneration in one eye and dry in the other.

So that's the status and it's probably been 15 years that I've had. It really didn't come to be an impediment for me until I would say about four years ago when the second started, and now, I have a cataract on it. And they don't want to touch it because it's not ripe, I guess is the word.

She continued to say that her vision has diminished.

When I watched the stock market, it used to have a straight line across the ticker tape. And now there are lots of lines. So, I know that it's been deteriorating. And I never wore glasses until I was 80. I seem to manage without it. But then I was using other devices and like a magnifier. But I finally had to get glasses and they've been very helpful.

S Mary was asked about her vision impairment and the diagnosis associated with it.

Well, I have diabetes and although they said that the...Now, my right, I've lost the vision on that completely. I shouldn't say completely. I can only see from the front, straight. I can see peripheral vision, but straight out, I don't see. And whatever happened, I don't

know; I never could understand what they were talking about, but I think what had happened, the blood vessels burst around the retina and so they tried to treat it, but it didn't work. They just left it as it was and it wasn't affecting me, but they kept a check on it all the time, because of the diabetes, whether it would...And my other eye, as far as I know, the last time the sight was very good, but now they treat it with injections in the eye, just to preserve whatever I do have. I can't see too far, the distant things. Now, if I were to look at...well, the pictures, because of the light and back of the light, I wouldn't see anyway. But if I were to look at the things on the table over there, I actually would recognize all of them.

She mentioned that depending on the circumstance she would have to get close to see what things really were: "I know what they are now, but if I were to just come in and say, from the door, look at the things, I really wouldn't see things clearly. I would have to go up close to really see what's what." According to her, the vision loss "really came gradually" and became more problematic when she went for eyeglasses because they were not strong enough for her, leading her to see other eye specialists who said they thought she needed more examination of the eye.

They went through that and now the right eye was alright for a while and then the...as I said, the blood vessel or whatever, I don't know; I really couldn't explain too much about it...that I think that the tiny blood vessels in the retina covered up part of the eye. When they got that, they thought they'd be able to treat it and give me some vision in it but gradually they realized I actually lost the vision, the straight vision.

She further stated, "I have the peripheral vision, so some of it wasn't damaged, I guess. I could see them come from either side. With the left eye, he wasn't telling me that it was changing so much, but I guess gradually there was a change, but it wasn't that serious." She described the

regimen of how the doctors were going to preserve her vision. “They came up with giving me injections to preserve whatever I have. I've been going for the injection for, I guess, four years, I'd say, maybe four or more. I went every eight weeks for it.”

S Regina was asked about the diagnosis she was given regarding her visual impairment. Macular degeneration. I was told that when they saw that it was getting worse. I didn't have the problem until I was up in my, I would say, my 80s. I've always had good vision, good health, everything. And when this came along, I guess they started to explain it to me because I don't have a background in poor health.

When asked what would happen if she would open up a book (what she could or could not see), she replied, “Blur. I could see the words, but I have to figure out what was the whole word sentence.” When asked about the progression of her impairment, she stated,

Yeah. I think I'm going to lose that. I don't know why I just have the feeling. My eyes, the doctor predicted I might have five years and then I would go blind. Now that was two years ago. Three years ago. So, I can see... So, I think the eyesight is slowly beginning...

### **Emotionally Overwhelming**

The participants in this study were asked to describe the effect their vision impairment had on their ability to participate and engage in social and recreational activities. According to Group Therapy (2019), *emotional overwhelm* is described in this way:

Emotional overwhelm is a state of being beset by intense emotion that is difficult to manage. It can affect one's ability to think and act rationally. It could prevent one from performing daily tasks. Emotional overwhelm may be caused by stress, traumatic life experiences such as a loss of vision, relationship issues and more.

Many of the participants, when talking about their impairment, shared a variety of emotions they



experienced as a result of their loss and how it affected their ability to participate in activities they enjoyed. Emotions ranged from participants stating they were alone, felt bothered, forlorn, frustrated, sad, worthless, and embarrassed (not wanting to disclose their loss to others), to name a few. While listening to the words of the participants, looking into their eyes, and reading their transcripts, the researcher discovered that no participants mentioned feeling angry or mad. Several participants, when sharing their emotions, also shared the effect of the COVID-19 pandemic that changed their lives.

### ***Being afraid***

Audrey, who proclaims to be a very social person, shared that her visual impairment has left her feeling afraid, especially when ambulating outdoors. She stated she is more aware of her bearings within the residence than outside of it, thus placing a restriction on her activity to get outdoors and socialize.

I can't see where I'm stepping. I can't see the curb. I'm afraid I might trip. When I'm out there, too, I don't know what's around. I don't know what part of the property I'm on. You know, I just can't figure directions or anything like that. It's just, as much as I've lived here this long, it's not like all the things inside the building that, that could be in. I don't have that outside. So, I could be walking in the wrong direction, you know.

Larry, who has a history of falls along with a visual impairment, expressed a sense of fear about his ability to perform ADLs.

I shower. I bought a chair. It's in the shower. I don't have any trouble showering. I had more of a fear because my knees had given away a couple of times and, fortunately, they've always been in the apartment, which is carpeted in the bedroom or even here, whereas it's...I'm just afraid. I have in the back of my mind at all times when I'm

showering, and there are bars all over the thing. I don't want to fall in the shower.

Dorothy utilizes a motorized wheelchair for access within and outside of her residence. She explained to the researcher that while she is able to see when using it, she does have concerns, noting the wheels are not properly inflated and positioned correctly. "I'm getting jerked around, my apartment is getting banged up, and I stay away from people. I'm afraid it's going to jerk and might hit somebody. That's my fear and then I'd be liable."

### *Alone*

Participants in one facility reside in private rooms. They were asked if living alone, especially due to COVID-19 and the restrictions placed on the facility, interfered with their ability to interact and socialize with others. Dorothy<sup>2</sup> stated, "Well, I don't socialize much now anyway because we were in our room most of the day."

S Janice stated, "I may have to eat here morning, noon and night." When asked how that made her feel, her response was "By yourself. I'm here alone."

As per S Mary, "It's just lately that I can go out. I have an invitation to visit another convent and all that, but it was really hard to just sit in the one room." When asked if she felt alone in her room, her response was "yes." She recently celebrated her 100th birthday. Due to COVID-19 restrictions, she could not have a big celebration with the other Sisters other than having a little ice cream and cake.

The only time that we happened to be able to visit was my birthday. I didn't have any outside visits. I didn't see any family members, because they weren't able to come in, but what they did, we had a television. The Sisters from the other convent where I had been, I think they called it the Zoom. We wouldn't have the other Sisters or anybody else. We didn't have any members of the families come in. It really was hard to come back to your

own room with nobody. I found that the hardest thing, of not being able to sit down and talk, just ordinary chat.

### ***Anxious***

Marlene expressed to the researcher that she does have anxiety, as was evidenced in the tone and hesitancy in her voice during the interview. She was asked if she had any difficulty adapting to her environment as a result of her vision impairment. “I was able to adapt by myself, as long as I have people around.” When asked if she was hesitant to ask for help if she could not see or do anything, her response was “sometimes.” She was asked what makes her hold back from asking for assistance. Her nervous reply was, “I don't know. I try to be as independent as I can. But I don't know how long I'll be able to function the way I am.” This was of concern to her.

In addition, she stated in an anxious tone that making an appointment to be seen for her cataract was difficult because of the pandemic.

Just that I have a cataract that must be taken care of. I wasn't able to go out because of COVID. So, I'm like a year and a half behind. I mentioned to the doctor that I have a problem, especially during the night when my eyes decide to close. And he said he'll take care of it in the next visit.

When asked by the researcher if she had an appointment scheduled, she anxiously stated, “No. Tell me what to do. I have to wait for a call from their office.”

### ***Bad***

When asked about how his vision impairment made him feel, Kim responded by saying “I got a lot of problems. You know what I mean? Since then, I cannot drive. I cannot read the Bible. I cannot read even newspaper. I feel very bad, and I make me very bad all day long.”

Mary Ann stated that she relies on her neighbor in the adjoining room to assist her with

simple tasks, which often makes her feel like she is bothering her. “I feel bad. I feel bad bothering her for things. You know, if I get a letter, I got to make her look at it and read it for me or something like that. But she's very good about it; she really is.”

### ***Bothersome***

Dorothy stated that she knows her ability to read will diminish over time. She expressed that she found it bothersome not being able to recognize faces and does not want others to feel like they're being ignored.

Well, I think eventually the reading ability will get worse and the problem—if you can't read and can't recognize faces, what happens is when a person is at a small distance from me and I can't recognize their face, that's a problem. Right now, I could still do it. So, I don't want to just ignore somebody, but there's a strong possibility I would not greet them because I can't recognize the face. It's recognition of the face. I could recognize some people by the way they walk but not by their face because they're too far away. And that to me, that bothers me.

### ***Content***

Dorothy<sup>2</sup>, who lives in a private room at the LTC facility where she resides, expressed feeling content when asked how she felt being in a room without a roommate. She resided in a convent for a short period of time and stated that she was able to adapt easily to new surroundings as a result of moving and traveling to different places. “I'm very happy. I am. As I said, for some strange reason, this kind of life suits me. So, I'm very content.”

### ***Depressed***

Alan described that he refrains from dining in the dining room and stated his reasons for dining in his room.

There's a lot goes on the dining room, sometimes unpleasant things. The other day I was sitting and talking with (resident). We've become very good friends. Something came over me. I looked around the room and I saw people sleeping. For that particular moment, in all the time I've been here, it built up to that I became very depressed. I'm glad I eat in my room. I have Dr. A\*\*\*\*, she's a psychologist; she comes in here once every couple of weeks to talk to me.

When asked if there was a reason she comes to see him, his response was humorous: "I don't know, maybe she likes me. We have conversations."

### ***Disappointed***

S Regina spends her time wisely and keeps herself occupied despite her vision impairment. She stated that once she started to feel well after arriving to the LTC facility, she was informed that she would have the opportunity to visit other Sisters who may need a visit. As she was sharing this, her face was glowing as she expressed excitement of looking forward to the visit opportunities. The feeling of excitement quickly turned toward disappointment which was detected in her voice.

There was another thing I thought would be nice now that I'm feeling well. When I first came, I was not feeling too well. I was so tired. But now that I really feel good, I know there's Sisters that said "I'll take you around. We can visit people who might be sick." So (She responded), "That would be lovely. I would love that. We can work it out."

Everything went fine. I spoke to the Sister in charge. I've never heard from that nun again.

### ***Embarrassed***

Charlie, who has severe glaucoma, stated that he prefers to dine in his own room to avoid

the embarrassment of making a “mishap” during meals: “Most of the time, I eat breakfast, lunch, or dinner here (in his room), because there (dining room) you cannot see quite well. I don't want to use my hands and knock everything down.”

S Janice who has a vision “deterioration” mentioned that she cannot see and that the other Sisters were unaware of that. Having been a reading specialist, she did not want to disclose this to her fellow Sisters. On more than one occasion, she stated, “I want to tell you something: The Sisters here do not know what’s wrong with me. They don’t know I can’t read.” She asked that this researcher keep that information confidential, as only her director was aware of it.

Alan was asked if the recreation and therapy departments were aware that he had a cataract in his eye so they could assist him in participating in social activities. He replied, “I don't talk about it. They might give me a cane.”

### ***Expected***

Dorothy<sup>2</sup> stated she knew what the outcome of her vision loss would be, having experienced it with her own mother:

But I think I kind of expected it. I think I realized that it wasn't going to get better because, I lived with my mom and I took care of her for 20 years, while she was worsening. So, I saw what she was having, what was happening with her and how it's difficult to get around.

### ***Included***

Audrey was asked if she attends programs that she is unable to participate in because she cannot see. “No. No.” she replied. She explained her response to the researcher.

Yeah, most of the things that they have though are visual. They have so many classes, painting classes, and sculpturing classes, a lot of things that you have to see. I do, do

trivia. I mean they really do a great thing here, but it's mostly for people who can see. When asked if she felt left out of programs due to her vision impairment, she stated she did not, but many of the programs are things she does not feel she is able to do.

I don't feel like that. The gal "T\*\*\*y" who's in charge of all the events in the place, she says, "Come down to the sculpture class." I said, "T\*\*\*y" how the heck can I sculpture? I can't see what I'm doing. I can't see my hands out here. There's no way I can do that. They have the painting; you should see they have so many things.

Judy recalled remembering a conversation that she had with the activity director at her residence. The activity director was trying to engage her in participating in programs that would be of interest to her despite her visual impairment. She stated that many of the programs were steered toward those who could see, without an impairment. However, she felt included, and staff were willing to help those with impairments.

Now we have a person here in charge of our programs who basically is an art therapist herself and she is urging me...They re-did the whole activity room downstairs. She is urging me to come there and do things. "I have things for you," she says. I said, "But I can't see them." "Don't worry. I have things for you to do." So, I haven't really tried it yet, but you see, I'm in a really good place where there are people wanting to help and wanting to help people with impairments.

### ***Sorrowful***

Kim expressed feeling sorry when asked about the effect of his vision on his participation in activities. "I feel very sorry about my eyes because I couldn't read paper, even the Bible. This morning, one doctor came to here, check. Since then, more blurred."

### ***Forlorn***

Judy expressed feeling forlorn when she came down to the dining room one evening for dinner. She stated she was unable to recognize people she was to dine with.

I came down to the dining room one night and I was going to be seated at a table of six people and I didn't see any of them, so I realized that they were already at the table somewhere. I walked in there and I looked around and there was no way that I could find them. I felt suddenly for the first time in my life rather forlorn.

### ***Frustrated***

Audrey expressed frustration over not being able to do simple things such as opening up a can.

So, I'm getting things in, opening cans, I have a—I have a crazy can opener, put it on there, one of those things. But I'm finding it hard now and I'm starting to drop things on the floor because I think I've got it over the plate, and I don't have it over the plate.

She further described how simple tasks were becoming more difficult and frustrating.

So, these things are getting harder for me now and very frustrating. And I do have my moments of depression because of it. Well, not to be able to do these things like I used to is hard for me. I've been such a proactive person all my life that this is hard and because if I drop something on the floor, I can't see it and I'm afraid I'm going to step in it. You can see the rug outside the kitchen; it's getting all full of food and Chuck is not careful either, so a lot of stuff is going on the floor. The other day we get cider, my son knows we love cider, so he brings cider all the time and I guess Chuck took the top off and forgot he took the top off and then he went like this to shake it up—cider all over the kitchen floor. And then he says, "Oh my gosh!" He went to go get something and the wheelchair went right through it. And what do you do? He tries to mop it up with paper



towels and he thinks that's all you have to do. Men don't think. It's sticky and I can't wash it. So it's a frustration because I can't do those things.

Dorothy expressed frustration when trying to tell her eye doctor that she was seeing changes (not for the better) in her eye and that she was not taken seriously by her doctors.

Doctors are overworked. They take into consideration they're number one and the patient is number two. Years ago, you have this sense of the doctor was a “sacrifice” and you the patient was the focus and that was his number-one priority. Today, it's in reverse and probably you can call it just a business. They were telling me there's no change, no change, no change. And I said, “I see a change.”

Her frustration intensified when she mentioned the frequent visits “from the retina specialist and every time I get an injection, I go back the next time; I feel that they were worse. I felt as though I was better off without them.”

Judy expressed frustration as well about not being able to do activities such as knitting, sewing, and cooking:

For instance, they'll have something with subtitles and the subtitles are in white. The background is also white. I'm thinking, what were they thinking of? How do they expect anyone to see this? There are things that I do not see on television.

Mary Ann described her frustration over her impairment as a result of the cataract in her eye. “It's gotten worse, like where everything is blurry, and I can't see. It's very frustrating is what it is because it's really driving me crazy.”

S Janice expressed frustration over the fact that wearing her eyeglasses “doesn't mean anything because if I take the glasses off, I can see just as well.” She has had the glasses “for years and the doctor hasn't changed them.” She added that whether or not she wears them, “it

doesn't make a difference as I still cannot see. I'm legally blind."

Alan described the process of having to call for his own appointment to see his ophthalmologist. He described that the pandemic influenced the timeliness of getting an appointment.

So, I took the extensive tests and I saw him, and he examined me, and he said, "Your right eye is badly need of cataract surgery, but there's something else behind the eye, which I can't detect until we take the lens out and replace it." I said, "Okay." So, I said, "How should we make an appointment?" He said, "Well, if you don't hear from me, call during the week, next week." Which was this week. I called on Wednesday and I spoke to a young lady named, I left a message with Andrea E., and she said, "We're so backed up." I said, "I'd like to make an appointment for the removal of my cataracts." She said, "We've been so busy. We've been so backed up because of the coronavirus; please call me June 14th and we can see what we can arrange."

### ***Heartbroken***

S Regina who was an avid reader and requires the use of a magnifier to read a book expressed how she felt with having to use the magnifier to read. "With readers, we read down the page. This way it was almost line by line. It would take me so long. Even now, somebody will give me a book; it's not the same, of course." When asked how that made her feel, she simply stated "heartbroken."

### ***Hopeful***

Alan, who has a cataract requiring surgery, expressed feeling hopeful based on others' experiences with cataract surgery, including his wife and a friend in the facility.

I've accepted it but now I'm going to have the surgery, hopefully within a short period of

time. My wife who had two cataract removals when we lived in Queens, she had complete vision restored; she never used glasses after that. And Dr F\*\*\* told me, we don't know how much vision you'll have; hopefully it'll be 100%, it might be 80, but I think anything else would be an improvement. So, I don't know with me, it's...I'm willing to do it. Maybe it's unusual for somebody my age, but I'm willing to go.

He also mentioned that there is something beyond the cataract that cannot be seen on examination but might be seen after the cataract is removed. If further extensive surgery is required, he would not have it done. He did not feel this would have an impact on his quality of life: "No, I don't think so. You have to be a certain way in your personality and realize at my age things can happen very rapidly."

Charlie mentioned that he has been seen by a specialist who is trying to help him restore some of his vision, which due to glaucoma has left him blind in one eye.

I had been seeing him many, many times. He has been trying to help me to have laser surgery many times. But he said that it's tough. "Why don't you go and have laser surgery? You could feel better." So, he said that. So, that's why he introduced me to the specialist again. So, that's why I have surgery. And he said, "You're going to feel better, much, much better." Of course, I've been much, much better this side, but this side...nothing.

### ***Lousy***

Audrey was a sailor who had her own boat and loved to sail. She stated that she had to give up sailing and her boat as a result of her vision impairment.

I couldn't sail anymore. But you have to be able to see. A friend of mine who was also in the yacht club, I used to crew for him. There were three or four of us that would crew for

him on the boat that's on the other side; they had the two masters. That's the one—we went to Maine and everything else. And he said, "You feel the wind, you know the direction the wind's coming in to set the sail." I said, "But I can't see if a boat goes in front of me." I couldn't see that. So yeah, I can feel the wind, I can set the sail by feel, the lines I could feel how the wind is hitting the sail, that I could do. But I can't see if a boat crosses in front of me.

When asked how she felt about giving up her boat, she replied, "Lousy. I had to give up my driving, too, at the same time."

### ***Sadness***

Audrey expressed sadness over knowing that there was no treatment for her vision impairment:

Well, I started to say to people, I give a leg to get my sight back to be perfectly honest because you can get a prosthesis for your leg, and you can work on it. You can't do anything for this particular type of eye problem.

Judy was an avid knitter yet needed to give it up as a result of her vision impairment. She explained how that made her feel.

That makes me feel sad. I'm a person who...I can't sit still. Knitting was one thing that could make me sit still once in a while when I had to rest. My hands always have to be doing something. I'm thankful that it didn't happen to me until I got pretty old. It might have happened when I was young. That would have been much worse because not much is expected of me anymore. I've done all the things that are important. I feel sadder and sadder every day. Yes, that's something I miss very much.

When asked if the magnifier (which she sometimes uses) helps her, she replied, "No, it doesn't

work.”

### ***Scared***

Larry recalled a time when he was getting his haircut and was unable to recognize someone sitting next to him.

I was getting my hair cut and a woman was sitting in the chair next to me and she says, “How's Flo?” (meaning the wife). I answered her. I said, “What's your name?” She says, “Irene.” I said, “My God.” I knew this woman from 1962. Okay, and I just didn't recognize her. Once she told me who it was, I could put the face where it belongs, like a name, but...So that was a little scary.

Mary Ann described a scary situation when talking about both her and her grandmother's experience with vision impairment. “Well, first of all, it was scary for me because my grandmother... I knew my grandmother, but she never saw me because she went blind from glaucoma. So, I never saw her sighted and she never saw me sighted.”

### ***Shocked***

Larry shared how he felt upon hearing the diagnosis regarding his vision impairment.

I cannot tell you because, in truth, I didn't even know that I was blind in my right eye. I just was seeing out of my left eye, and I didn't even realize it until I went for an eye exam, and they told me to read the chart. Not only I couldn't read it, I couldn't even see their fingers. They held up fingers, and I was shocked, not because I didn't anticipate it, but I was shocked because I didn't realize it.

Dorothy<sup>2</sup> expressed feeling the same upon hearing her vision diagnosis: “Well, I was shocked a little bit.” She “kind of expected it,” realizing that it was not going to get better because she lived with her mom, whom she cared for, and saw what was happening to her.

### ***Terrible***

Dorothy described a time when she was in the company of other people and could not recognize someone. When asked how that made her feel, she replied, “Terrible.” She further explained, “terrible, because I really want to know who that person is, but I'm not sure who they are.”

### ***Tired***

Larry was asked about what his day-to-day life was like, considering his vision impairment. He replied “That chair is electric. I spend a good portion of the day reclining in it. I do sleep a lot. I don't know whether it's...excuse me...I don't know whether it's because of the glaucoma on my eyes or not, but I'm always anxious to find a reason to close my eyes.”

### ***Upset***

Audrey expressed feeling upset about things she can no longer do but has accepted it.

Well, you know. Yes, it's held me back because somethings that I could, I could see to do, I can't do. But you know, I've adjusted, I make the most of what the good Lord gave me. What I have now, you know, there's no point and getting all upset over this. Yes. It's upsetting. There's no question. You know, you do the best with what you've got.

Larry verbalized that very little is done within the residence for those with low vision. “Okay. I just want to tell you that so far as this place is concerned—low-vision people—I mean, there's no exception made for that. They don't do anything.”

### ***Worthless***

S Janice expressed that she was a driver at one time and had her driving privileges taken away. She stated she was involved in a car accident but did not immediately report it to her Superior. When asked if it was her choice to stop driving, she stated, “No, it wasn't my choice.”

When asked how that made her feel, she replied “like 2 cents.”

### **Lack of Education**

Many of the participants described how they were “in the dark” and not always provided with a reason for their visual impairment. They described how the diagnosis was explained to them and the frequent specialists they needed to see to in order to get an understanding and confirmation of what was happening. The participants shared their experiences with the researcher.

Alan described to the researcher that he had a cataract and the beginning stages of glaucoma. He was not sure if there was more that had not yet been diagnosed: “We don't know. He (the doctor) did mention that there was something beyond the cataract that he could not see until the cataract was removed but there was something else brewing, and he doesn't know the nature of it until the surgery is completed.”

Audrey mentioned that it took more than one specialist to confirm the diagnosis in her eyes, which concerned her. She voiced in a sullen tone, “and it was on a, I guess a Sunday, so I went to an ophthalmologist on Monday, not knowing what it was; he didn't know what it was. It took the third ophthalmologist who said, ‘I think it's AION.’”

Charlie disclosed to the researcher that he had cataract surgery many times.

And then, when I was in Floral Park, I have met one special eye doctor. And then, I have laser surgery because they found out that I have glaucoma. And then, laser surgery many times. And then finally, he introduced me to a special eye doctor, the surgeon in Hempstead. And I have surgery around March this year. The surgery in the good eye, because the bad eye, I have been blind already.

He stated that the bad eye was his right eye where he has no vision at all and if he were to close

his left eye, “forget it.” He stated that the first diagnosis given was cataracts and that now glaucoma was found.

Yeah. Around that, yeah. And then Dr. J\*\*, the specialist, L. J\*\* in Floral Park, he introduced me to his student who is a surgeon, Dr. M\*\*, who is a surgeon, eye surgeon. And he said that, "It's going to be getting better." Of course, my good eye is good, but my bad eye is worse.

He was asked if he could see me which he said “Yes.”

Yeah. Sometimes it's blurry and it's watering. It's tearing a lot. I mean, I don't know why. That's why I use a lot of tissue. I went to see the eye doctor many, many years and then finally, he introduced me to his student, the surgeon. And then, he said, "It's going to get better." And my eyes, they have surgery in my good eyes because they try to protect it because the bad eye will come to take over.

Dorothy mentioned that she was not initially given a diagnosis as to what her visual impairment was. “Not particularly, no. I did not get very good medical attention or advice.” She continued to describe the lack of medical attention and advice provided.

Macular is very difficult to diagnose I understand, and the medical profession is not what it is today as it was years ago. I mean, the medical profession is a different practice today and that makes a world of difference. They don't even want to listen to me. I have not told these eye doctors because there's no time to do it. They're in, they give you a needle, and then they're out. That's it. They don't want to hear anything else. It's an old age disease. I didn't go to my eye doctor yet because maybe he might listen, but we'll see.

Dorothy<sup>2</sup> stated that the Group for the Blind came to see her regarding her visual impairment.



They came to the house, and they spoke with me and talked with me, and they agreed that I was...legally blind. Yeah. And they gave me some information. Don't do this and try that. Not much of it was any helpful to me because, I was well on my way of taking care of myself.

She further stated, "I'm not able to learn the smartphone. At first place, I don't have much of a need for it, and I don't want to go through the learning process for that."

Larry mentioned that he is "always anxious to find a reason to close his eyes. I don't know whether it's because of the glaucoma on my eyes or not." Larry reported never getting an answer from his doctor as to why he felt that way.

Mae had stated to this researcher that when she was young, somebody hit her in the eye with a snowball containing a rock and that it might have something to do with her vision impairment. "But my vision has been, you know, getting disturbed." She was asked when was the last time she remembered seeing a doctor: "About two years. They're watching the retina because I'm on a thing for the arthritis." She did not elaborate what that "thing" was, only stating, "The retina was perfect. It never changed."

Margie was asked by the researcher if she had ever fallen in her room, as there was a fall prevention sign affixed on one of the walls. "I've had five falls since I'm here. In the room. I fell in this room twice. If not more. I fell downstairs in rehab when I first came." She attributes the falls due to her balance and not necessarily her vision impairment, admitting that she was reluctant to ask for help. "I'm so used to being independent. I don't know how to ask for help. I feel like if someone is busy working, I don't want to bother them." She disclosed, "With every fall, if I think about it, was when I was standing up wherever I was to try and get into the wheelchair."

Marlene was initially given a diagnosis of cataracts when asked about her vision impairment but was not able to recall another diagnosis that was provided to her.

My vision. This is how I forget about it. And this eye is better, but I see...Oh, you know what the doctor told...that I have the beginning of macular...is it immaculate or macular? He didn't go into it too much because he really was concentrating on this eye. And he said I should be taking vitamins, which I found out that they are giving me eye vitamins; that's what he suggested for now.

In addition to not knowing the full extent of her visual impairment and the medication that she was taking for her eyes, she was unaware that there were books on tape where she could actually listen to audiotapes: "I haven't even thought about that."

Raymond, when asked about his vision, stated, "My vision hasn't bothered me. And you can see that I have the bifocals. If there's something I have to read, I read it." He was asked if he thought that the diagnosis of MS had anything to do with some of his vision loss (i.e., optic neuritis) and if the doctor had mentioned anything to him: "The vision had nothing to do with the MS. The MS is my mobility to turn pages."

S Mary who has diabetes was diagnosed with macular degeneration. She stated there were times when she was not sure what the doctors were talking about regarding her vision.

Well, I have diabetes and although they said that the...Now, my right, I've lost the vision on that completely. I shouldn't say completely. I can only see from the front, straight. I can see peripheral vision, but straight out, I don't see. And whatever happened, I don't know. I never could understand what they were talking about, but I think what had happened, the blood vessels burst around the retina and so they tried to treat it, but it didn't work. They just left it as it was and it wasn't affecting me, but they kept a check on

it all the time, because of the diabetes. They thought I needed more examination of the eye and see what they...They went through that and now the right eye was alright for a while and then the, as I said, the blood vessel or whatever, I don't know, I really couldn't explain too much about it, that I think that the tiny blood vessels in the retina covered up part of the eye. When they got that, they thought they'd be able to treat it and give me some vision in it, but gradually, they realized I actually lost the vision, the straight vision. I have the peripheral vision, so some of it wasn't damaged, I guess. I could see them come from either side. With the left eye, he wasn't telling me that it was changing so much, but I guess gradually there was a change, but it wasn't that serious.

The participants' timeliness in receiving their diagnosis and the emotions they expressed were shared with the researcher. Receiving the diagnosis was overwhelming to many. To name a few, emotions such as feeling sad, heartbroken, forlorn, and lousy were identified. In addition, an understanding of the diagnosis was not always understood by those experiencing it.

### ***Theme #2: Impact of Vision Impairment***

For those experiencing a visual impairment, life as “previously known” may have a significant influence on “moving forward.” Changes in day-to-day activities may be curtailed as a result. Many of the participants in the study expressed how their visual impairment impacted their inability to recognize people, their concern about their safety and fear of falls, an inability to drive, the need for additional lighting, a loss of freedom, and its effects on enjoyable activities. The impacts of these changes are described in the words of some of the participants.

#### **Inability to Recognize People**

Audrey was asked by the researcher if she was able to recognize people as a result of her visual impairment. When she cannot see faces, she relies on voices: “Oh yeah. I know about the

voices of about 80 people in this building.” She relied on the different dialects. “Well, you know, it's the tone. It's the cadence. I mean different things that help you with that because I can't see, unless they have a very strange walk.”

If they're close to me, there's one guy here, he's now in the Tuttle Center. He's the first person in this building, in August of 2010. And when he walked, he walked with his two hands clasped behind his back. He always walked that way. I could see the silhouette of him, so I would know it was Bob. And then he had a high-pitch voice. You know that the pitch in his voice, the cadence, there are a number of things in the sound of a voice that that can help me recognize them.

Dorothy was asked if she sat in the dining room with a specific group of people at a set table: “No. I didn't tie myself down to a group.” When asked if she could see the faces of the people that she was seated with, she replied, “Yes, that close, yes.”

Well, I think eventually the reading ability will get worse and the problem, if you can't read and can't recognize faces, what happens is when a person is at a small distance from me and I can't recognize their face, that's a problem. Right now, I could still do it. So, I don't want to just ignore somebody, but there's a strong possibility I would not greet them, because I can't recognize the face. It's recognition of the face. I could recognize some people by the way they walk. But not by their face, because they're too far away. And that to me, that bothers me.

She mentioned to the researcher that she sometimes found it bothersome that she could not recognize faces when she was attending functions.

Well, it depends on the distance. If they're close to me I know. But if they're a distance away like let me see. It's hard for me to measure distance. Let me say like maybe 20 or 30

feet or 50 feet away. Whereas before I was able to recognize them from a long distance, but now I'm recognize them more by the way they walk.

She was asked if she found other ways to identify people: "Yes. Well, it's a hit and miss. Sometimes I do. Sometimes I don't. We had 300 people here to deal with...and that's a lot of people. But yes, I could identify them by voice. Definitely."

Judy mentioned how it bothered her that she is unable to recognize people but is able to see their bodies. "If I hear their voice, sometimes I can tell from the way they walk who they are, but I cannot see the features of their face unless I get close to them and I'm living in a place where there are an awful lot of people whom I know." She shared an experience of how she came to the dining room one night and was unable to find her tablemates.

I came down to the dining room one night and I was going to be seated at a table of six people and I didn't see any of them, so I realized that they were already at the table somewhere. I walked in there and I looked around and there was no way that I could find them. I felt suddenly for the first time in my life rather forlorn.

Larry was asked if he had difficulty recognizing people due to his visual impairment. "It's a hard question to answer because of the COVID-19. Everybody walks around with a mask. I don't know who I'm talking to. It could be Jesse James, I just don't know, and I'm not good at facial recognition." He proceeded to share an embarrassing situation that happened to him.

Obviously, it's limited because I was never good on facial recognition or names, never. So now people walking around with masks, I don't know who they are, and it's limited our social activity of getting...I mean, we met one couple here who had belonged to our congregation before we got here. I didn't know him. We walked past each other, and he said he knew me, he said, "I know you from the congregation," he said, "But I don't know

your name," and we've become pretty friendly with them.

Sr Janice was asked by the researcher if her visual impairment interfered with her ability to recognize people. She was asked if she could see the researcher, for which she replied, "I can't see your face." She was asked if she could hear me for which she said, "Yes." When asked what she sees when looking at the researcher, she replied, "I know you were in blue and white. I can see your face. You have eyeglasses on." She stated she does not always have the same caregiver and was asked how she would know if there's people coming in and out of her room. "I answer the door...and then I ask them to come closer so I can see who they are."

### **Safety and Fear of Falls**

Audrey is a big fan of parties in the facility, especially when it came to wearing costumes. She made her own costumes and looked for any excuse to dress up: "We had a Caribbean party, and I got a straw hat and had fruit and flowers all over this big hat and I was dressed for the occasion. I love costumes." At the time of her interview, Halloween was just around the corner. She was asked if she would participate in a party as the pandemic affected all previously planned social activities.

I don't know if I'd ever get into that again because I can't see. I have shoes that are this long, plastic shoes that I wear, and the big toe is out and to move around in those when I can't see would be a disaster. I could see me tripping, falling, and everything like that. She continued to say, "I'm just afraid of walking with these shoes, that's the only thing because they're so big and clumsy." A suggestion was made to leave off the shoes. She replied, "It's a big part of the costume." She expressed a desire to walk and considered herself safer in the building versus outside of it. "I'm fine inside the building. You know, I know this building and I probably said this to you before. I know this building so well that I have no trouble getting around in here.

Oh, I now have a walker.” She mentioned that her son bought her a walker for which she stated she did not need one yet. She described how she maneuvers herself around the building.

You know, I walked around here, and you know there's like a rail along the hallway, on our residential floors, and I just walk close to it and have my hand like on it. But I was tentative walking. With this walker, I'm a buzz right here. All over the place. It's great.

I'm walking with confidence with it and it's jazzy. It's got red on it and black. Some of my friends kid me that I have a hot rod. But that has added a lot, it really has. I don't go out unless my kids are here, and they want to walk with me. We take a walk around the building.

Charlie was observed with two walkers in his residence for which he admitted, when asked, that he does not use them: “I should, but that's okay. I'm very stubborn. I think I'm strong. That's why I fell so many times. I'm very stubborn. I pretend that I'm healthy.” The researcher summarized what he had stated about the walkers; that he does not use them, that he is stubborn and that he feels like he is still young, which he confirmed. He was asked if that was a way for him maintain as much independence as possible:

Yes. Yeah. I like to go out for a walk, but I have my walker. And then, sometime a walker, when I hold it like that, the wheels ruin because that walker is not for- for the carpet. Only, for the cement—all of those stuff. So, I don't go out much.

Larry discussed his ability to maintain his own safety around his residence. He stated that when it came to fixing things, he could still perform small repairs. “I mean, in other words, if I repair something around the...small items around the house, things like that.” During the interview, he frequently arose from his chair to walk around his apartment. He was asked about whether he uses the walker that was folded up near the window of his residence as he was not

using it at the time:

My inability to walk is connected with my eyesight. I can walk okay, but now I use a walker, although I do walk around the apartment without the walker, but when I'm outside, I always have the walker with me.

He spoke of the gradation on the sidewalk and that it was a hard thing for him: "Yeah. The hardest thing that I have is gradation, going from the sidewalk down. That step is like difficult to me." He was asked if he had ever fallen because of the change in gradation. He laughingly replied, "I've fallen several times—a lot of times, I should say, because of trying to pick something up, and then the other time is I have..." He was asked if his vision had anything to do with it. His reply was that he had "vertigo." "I don't have it all the time. I have it in passing, and I have fallen several times from the vertigo." He explained what he has done to make his apartment safer, mainly his bathroom and specifically the shower.

I shower. I bought a chair. It's in the shower. I don't have any trouble showering. I had more of a fear because my knees had given away a couple of times and, fortunately, they've always been in the apartment, which is carpeted in the bedroom or even here, whereas it's...it's just a fear I have in the back of my mind at all times when I'm showering, and there are bars all over the thing. I don't want to fall in the shower.

He can see everything in his shower: "Yes, I see knobs that turn it on. I turn it off. I can even pick up the soap when it falls on the floor. I don't know how many times I've ever gone through a shower where I haven't dropped it two or three times." He was asked again about his walker.

As far as the walker's concerned, I walk around the apartment without the walker. I take it with me sometimes. Don't ask me why, I just do. Other times I walk around, but I never pass the door...unless the therapist...One of the things he has me do is walk without that



walker down the hall, but he's with me. I'm afraid of doing that on my own.

Margie admitted to the researcher that she has had many falls (five in total) in her room since her arrival to the facility.

I fell downstairs in rehab when I first came. Yeah, because, like I said, my balance. I'm so used to being independent. I don't know how to ask for help. I feel like if someone is busy working, I don't want to bother them. So, if I can get up and get in the wheelchair and do whatever, then I tried to do it myself, but I fell trying to get into the wheelchair. Every fall, if I think about it, was when I was standing up wherever I was to try and get into the wheelchair. And I fell. I only fell a couple of weeks ago.

The researcher inquired as to how she is able to get to the bathroom, especially during the night.

Oh yeah, I have to go to the bathroom. So, like you say, your eyes adjust to the dark. And then I see the light under the door and that light, and I go to the bathroom. I go over to the—it's like everything else. You know where it is. So, I come out of there. I go to the sink.

Wash my hands. And then I come back here, Hold on to the rail and then back to bed.

She was asked if she attributed any part of her eyes having anything to do with the falls: "I don't. I think more my balance than the eyes." She was unaware if there was a fall-prevention plan in place to address her frequent falling.

S Regina stated that she was always independent but now her age was beginning to show. She mentioned that she had several falls and began to describe her occurrences: "What happened was I fell once over the rug. I fell twice. I fell three times. I began to see some things." She mentioned that her friend who she lived with said, "Regina, you've got to do something. I can't take care of you. We can't keep this up." Her friend also told her, "Your vision is going. If you do your cooking, if you partially leave the gas on and a fire starts, you've got to be sensible." She

said this was the reason she left her apartment and came to the facility. Since coming to the facility, she mentioned that safety and the use of her walker was important: “I would never try to go by myself because I’m on a walker, and I use that because if I trip and fall, I told you that, it would be my fault. So, I would never go alone.”

Ronnie expressed a fear of falling, as she shared a recent experience. “The other night I was concerned; I thought something was leaking in the bathroom. It's clean water, but it wasn't dripping from the toilet or anything. And I couldn't figure out where it was coming from.” She stated they sent someone up to look at it and he took the thing apart. She was re-assured that it was not a problem when the researcher was concerned about her risk of falling. She told the maintenance worker, “I can't take any chances on falling. And that floor is like glass when it gets wet.” She continued,

And I had rugs in there. When I went to therapy here, they told me to get rid of all the rugs and I did in the other bathroom. But I think it's almost more dangerous if you don't have something solid under your feet. So, the rug in here is a woven one, and I feel it's safer.

### **Inability to Drive**

Audrey was an avid sailor who shared how her visual impairment influenced the enjoyment she got out of sailing. “I had to give up my boat; they donated my boat to a school out on the island.” When asked if that was because she could not sail anymore, Audrey replied with the following statement:

Yeah, I couldn't sail anymore. But you have to be able to see. A friend of mine who was also in the yacht club, I used to crew for him. There were three or four of us that would crew for him on the boat that's on the other side; they had the two masters. That's the

one—we went to Maine and everything else. And he said, "You feel the wind, you know the direction the wind's coming in to set the sail." I said, "But I can't see if a boat goes in front of me." I couldn't see that. So yeah, I can feel the wind, I can set the sail by feel, the lines I could feel how the wind is hitting the sail, that I could do. But I can't see if a boat crosses in front of me.

Giving up her boat made her feel “lousy.” She said that she had to give up driving at the same time.

Charlie verbalized the affect his visual impairment influenced his driving capabilities. He described how he no longer drives and that he gave away his car as he could no longer use it.

I don't drive now. I gave my car as a gift to the daughter of volunteer. So, I gave her as a gift because I don't drive. Because here, if you have been parking here for a long time, the security here will tow them away. Or Mary or Tom C\*\*\*, I'm going to say Tom C\*\*\*a, he's going to call somebody to tow that car away. So, it's good.

When asked about giving up driving, he replied “You know what? I could not even read the signs, so I guess it's—what do you call—uncomfortable because I want to go to the store here to buy that one, this one, so I have to ask for somebody to come.”

Dorothy does not drive a car, but she drives a motorized wheelchair primarily due to arthritic changes in her knees and not so much for her impaired vision. She considers the power wheelchair to be a “godsend.” She sensed a problem with one of the wheelchair wheels and the frustration she had with having someone coming to repair it. “I'm getting jerked around, my apartment is getting banged up, and I stay away from people. I'm afraid it's going to jerk and might hit somebody. That's my fear and then I'd be liable.”

Dorothy<sup>2</sup> shared an experience that her visual impairment influenced her decision to no

longer drive. She described a scenario where she was attempting to complete a chore.

I was driving one day to the laundry, and I almost ran into the car in front of me, because I didn't see in time that he had a protruding pole. And it almost came right to the windshield...before I even saw it and I veered to the right and almost had a serious accident as a result of that. But fortunately, nobody was in that lane. And I parked and I cried, and I was shaken up and then I just made a U-turn, went home, and I never drove again. I just said, "Not a chance."

Judy described how her visual impairment led to her decision to stop driving. She stated how driving can be an asset as she and many of her friends of the same age stopped driving despite it being necessary based on the location where she resides: "As you can see, my friends who are the same age as I have more difficulty getting around. I have stopped driving, so some of them have stopped driving. In this particular area, as you know, that's an enormous factor." She admitted that she was not a very good driver and gave the reason why she drove: "I never drove just for the sake of driving, so I don't have that aspect of it, but of course there's things you want to go out and do sometimes." She continued to describe her visual changes and when she ultimately made the decision to stop driving.

I experienced in the beginning...I became a very nervous driver and I realized suddenly I'm going really slowly. I'm always in the right lane so someone can pass me. That whole vision of the little old lady that everybody honks at and curses, I am that little old lady and I better stop this; I willingly gave up driving. I realized that I couldn't judge distance. I didn't know how far away I was from the curb. Parking was...forget that. Even stopping—the back of the car. I couldn't quite judge that distance. So that's when I knew I shouldn't be behind the wheel of a car.

Larry told the researcher, “I don't drive anymore.” When asked if he had driven in the past, he replied “Oh yes.” When asked why he decided to stop driving he replied, “insecurity with my eyesight, of course.” He was asked how he felt having to give up driving. “At the time, my wife drove. It really had no impact at all. So instead of me driving, she drove.” He further went on to say that his spouse is no longer able to drive due to illness. He was posed with a question as to whether he would still be able to drive a car or if his vision would hold him back: “I think I would be able to drive it. I don't think it would be safe for the other people on the road. I don't know. I haven't tried.” He mentioned that when he first arrived at the residence, he was driving, but that had changed when his vision started to become impaired. “I think when we first came here, I was driving, all right, but it's...I don't know when the right eye went blind. I might've been blind a long time, but like I said, when you go blind in one eye, you see with the other eye, and you don't even realize it.”

Mae mentioned that because of her vision, she had to give up driving. “I used to drive. I gave up my driving...we'll say a year.” This made her feel “upset, because then I was able to go to the pharmacy whenever I wanted. I was able to go to the grocery store when I wanted. Well, it was upsetting giving up my car.”

S Regina was asked if she ever drove a car and had to give up driving because of her visual impairment. “Yeah. Well, because of my age, I decided I better stop driving because God forbid if I had an accident, what's the first thing people will say, ‘What is a woman of her age doing behind the wheel?’” She continued to say, “That's it. I'm stopping.” She was asked if she missed driving. “Yeah. Well, I miss what you get from being a driver.” When asked what she meant by that, she replied “freedom.”

### **Need for Additional Lighting**

When asked if lighting made a difference to her or impacted on her in any way, Audrey responded, “A little bit, but nothing like it does now.” She was asked to further explain.

Well, let's see. How can I put it? If I'm outside and I come back in, it takes quite a while for my eyes to adjust. I can't like...I'm sitting here at my desk and there, the calendar is on my desk, which is about three feet away from me. All I see is the white square. I can't see any of the writing on it at all. Unless I put it under my machine. I mean, it's that's serious. It's just that there's a very, very slow fading of, of light as a focus, but it's so slow. It's hard. You know, I go to my glaucoma doctor. He is just great. And he'll ask me "how's it going?" And some days, things are better for me than other days. I like it when the sun is outside; it makes my room brighter. A cloudy day, everything is dark. You know, but I have to be careful not to get into a glare. When I get in the car, I put on my dark sunglasses. I put the thing down over the window because just the sun on the roadway affects me. I like being out on a cloudy day, a nice warm, cloudy day that isn't too humid. That's the ultimate.

The researcher asked her about LED lights that were going to be installed in several apartments including hers. At the time, she had not had any lights installed yet.

Mine hasn't been installed yet. They're going through; they do about one a month. They have a lot of other things to do. That isn't high priority. They've done about a half of our group. I have one or two in the apartment already just because they were changing light bulbs. So, they put it in, like inside my closet, which you know, has no window or anything in it. So, I have one of them in the closet, interior closet.

When asked if she thought the lighting would help, she responded in a defeated tone.

I don't know. There's no ceiling light that would have a LED in my den, which is where I spend a lot of time. The closets, the hallways, the kitchen, those of the bathrooms, those are the areas that the ceiling LED lights would go on. As I say, I have one in the walk-in closet already, but I could use another one. I could use one in the kitchen. I could use one in two hallways. I have floor lamps and lamps on top of things that are not LEDs. They're regular, regular lamps, incandescent. But that's, that's still difficult. I'm still with that kind of lighting. I'm still using a magnifying glass, a lighted magnifying glass. I'm having great difficulty with that now. I'm trying to read stuff in my file cabinet...is very, very difficult. I usually have to pull everything out and bring it over to my Seymour because I can expand that more to be able to see things. I fiddle around until I get it.

Charlie was asked about whether or not lighting had an effect on his vision as the researcher observed that there was a lot of light in his room. He spoke about how glare affects his vision: "I don't want to, what do you call, the glare or the...to hurt my eyes. Normally, my doctor told me to wear sunglasses all the time. So, I should wear sunglasses to talk to you, but I don't want to be a hit man." It was observed by the researcher that the chair which he sits in and spends most of his time is up against a wide unobstructed window with a floor lamp placed behind his chair.

Dorothy shared with the researcher that LED lighting was installed in her apartment. "We got lighting and we got special lighting in our apartment. The (facility) gave us that privilege. They came to everybody who had low vision and put in a LED light and it's very helpful." Prior to the installation of new lighting, she stated her apartment was "Much darker. Much darker." She was asked if she needed to go into different places in her apartment to get more light. "Well, depending on what I was doing. If I was reading, yes, eating I think...I think at that time, I

managed well, but now since the lighting, I'm managing better." When the researcher concluded that the lighting had made a difference to her, she replied, "It absolutely made a difference. Absolutely made a difference." When asked if the lighting made it safer for her, she replied, "Oh definitely. Definitely. Can see where you're going."

Judy was asked about the lighting in her apartment and if it affected her vision.

They did change the lights in here, thanks to Rosetta. About two LED lights and my kitchen is much better lit now than it used to be. But I still...It varies. My vision seems to vary. The doctor said that would be normal. Sometimes I can see what it says on the microwave and sometimes I can't.

She had a big, beautiful window overlooking her grounds and was asked if the LED lighting helped her since it was installed.

Oh, yes. Tremendously. Yeah. I changed all the lights that I had that were my fixtures already to LED lighting. I had done that, but the chandelier is mine and any lamps or anything are mine, but the lights...There's a light now in that area where the washer and dryer is. So, I couldn't see the dials on that very well. It helps to have that...an LED light.

She stated that lighting was the initial sign that her vision was changing.

Yeah. Light was the first thing I suppose that I needed. I would take what it was and go to the window. I needed more light. The light was the very first thing and then I also...one of my other things that I did...I had a lot of jobs. I just never earned any money. I worked with my daughter. She does hand decoration of children's clothes. She takes simple T-shirts and sweatshirts and onesies and little garments, and she dyes them. Sometimes tie-dyes them and she appliques them with things. She does all the designing or whatever and then I would sew...It was an appliqué like designer shirt. I would sew a satin stitch all



around it. She said to me one day, “Ma, why did you use that color thread”? So that was a cue.

She mentioned that because of the issue with lighting, she decided to stop driving:

I stopped driving and I just continued to need more light and eventually use a magnifying glass. I see a retinologist once every three months and I get injections in both of my eyes.

I have been getting injections for many years, which controls the leakage in the macular degeneration.

She was asked if the lighting was helpful for her:

I have been in search of more light for many years, even before I was having trouble seeing. I didn't quite realize that I was having trouble seeing. All I knew was I wanted more light. So obviously they went together.

When asked if the lighting in her apartment improved after the instillation of the LEDs, she stated “It is better,” but she was not sure if more lighting would actually help her. “I'm not sure that, that would help. I mean, I think the problem is something else.” When asked again if the lighting helped. “It definitely helps. That was in big part to Rosetta and the vision support group, because she was able to provide it, I think, for everybody in the group.”

Margie resides in a room where there is a light over her bed with two windows allowing natural sunlight to enter. She was asked by the researcher if the lighting in the room was adequate for her. She pointed to the light over her bed: “Well, that's on low. They must have put it on when I was at the doctor, and they were making my bed and stuff. But I like bright, not glaring, but brighter lights because I could see better.”

Ronnie is a member of a low-vision group that was formed in her residence by a volunteer who worked for The Lighthouse for about 30 years. She stated that the group consisted

of people who had visual problems and that this volunteer invited those who were visually impaired to come together to talk about what they experienced. “It's been very helpful and several of us talked about the lighting in the apartment and she went to the management even before we...She told us and she said they agreed to change the lighting in our apartments, but we had to promise not to tell everybody because they would be bombarded.” She was asked if she noted a difference. “Absolutely. Especially in the kitchen and the bathrooms.” She elaborated further on the lighting.

In the kitchen I stand in. They put in a totally new fixture in the ceiling with the lights that's probably three times bigger than what was there originally. And they put all new lighting underneath the cabinets that are twice as visually improved compared to what was there. And so, this is a huge improvement.

S Mary was asked if the lighting in her room affected her ability to see her:

Yes. Because you're in such a light, you look like you're in a fog. Whatever the light does, because I do see you, but I guess I don't see you clearly, because there is the effect of the light shining on you.

She was asked if she felt that she had enough light in her room, as there were a number of lights in her room: “Well, there's another light there. I have the light there and I have one over the sink.” She also had natural light from the sun coming inside her room. “I think I have enough light, yeah.”

S Regina was diagnosed with macular degeneration. The window blinds were open. There was a light over her bed, a light over her sink, and a light on the wall to the left side of bed. She was asked if lighting was important to her because of her visual impairment: “To tell you the truth, I don't even think about it. I just feel it's a help, but I just accept that it's there.” She

was asked if she ever recognized that she needed more light. She required clarification of the question. An example was presented (i.e., reading a book) and the researcher asked if she needed more light to be able to read it: “Oh, I definitely need more light, yes.”

### **Loss of Freedom**

Alan discussed his involvement in activities, specifically as to how it related to the pandemic, as most activities were curtailed. The fact that he could not mingle off the floor or was confined to his room had an impact on his ability to “come and go.”

Before the pandemic, yes, and then the rules became very difficult. Couldn't intermingle.

We have not been able to mix with other people on other floors; it's just everybody on this floor, and there's a lot going on on this floor.

Charlie described how he felt about having to give up driving and the effect the pandemic had on his ability to leave his residence to run errands. He talked about how his freedom was affected and his new reliance on others to assist him:

You know what? I could not even read the signs, so I guess it's, what do you call, uncomfortable because I want to go to the store here to buy that one, this one, so I have to ask for somebody to come.

He spoke about a volunteer in the residence who would assist him with his transportation. “He's been very good, because when they call him, he's going to take me here and there, to the bank, to CVS, to the store to buy that one.” When asked what his life was like here (at his current residence) before the pandemic and what was it like for him afterwards, he stated “So, there are so many rules and regulations, I think. Before that, you are free. But now, we have to go out with a mask, with the gloves, before everything.”

Dorothy<sup>2</sup> also spoke about the loss of freedom, specifically on how it pertained to her

decision to stop driving due to her visual impairment: "It enables you to go wherever you want to go. It gives you freedom; it gives you mobility. It gives you possibilities that you can't even imagine." When asked what it was like living without it, she replied "When you don't have it, you say, oh good night. Makes a big difference in your life." When asked what she missed most about not being able to drive, she stated, "I miss that, being able to just get up and go. You lose a sense of freedom because you cannot go anywhere unless somebody takes you." She shared a situation that occurred with just wanting to have her hair cut.

They have to bring it. Even if they bring a wheelchair, get my haircut just the other last week or a couple of weeks ago, I had to make an appointment with the haircut. And I had to make sure somebody came with the wheelchair and took me down, stayed with me.

And somebody wheels you back up again. So, your sense of freedom of motion, mobility, is shot.

She further described, with an excited look on her face, how she was able to get around despite being older and not as mobile.

Even as I was older, I couldn't run down the stairs any longer. I'd sit on my chair and the chair would take me down. But I would go to my car, get in the car, turn it on and go.

Meet somebody for lunch, go to shopping, go to Roosevelt Field, all of that kind of thing.

This way, you cannot do any of that. You simply can't do it. And they say, "Oh, well.

Call a taxi, call this, call that." You could do all of those things, but it isn't the same. Just isn't the same.

Judy mentioned that her freedom was affected as a result of her inability to drive due to her vision impairment. "I never was a very good driver. I never drove just for the sake of driving, so I don't have that aspect of it, but of course there's things you want to go out and do

sometimes.”

Mae stated she felt “upset” in giving up driving. She inferred that her freedom was imposed upon “because then I was able to go to the pharmacy whenever I wanted. I was able to go to the grocery store when I wanted. It was upsetting giving up my car.”

Mary Ann was asked about whether her freedom was impacted as a result of the pandemic. “Oh yeah, big impact on me, because at that point, I was able to go out whenever I wanted.” She now stated that she has to rely on an aide to be with her. “You know, as long as I’ve had an aide with me and I took an ambulette, they never bothered me. All I had to do is tell them and get their permission, and that was it.”

When the topic of driving came up with S Regina and what it was that she missed from it (as a result of her visual impairment), she stated, “Well, I miss what you get from being a driver.” She was asked what she meant by that. She replied “freedom.” When asked if that was important, she replied, “It was. Now it doesn't matter.” She was asked if the restrictions placed on the facility as a result of the pandemic played a role on her freedom.

Well, I can't go outside and take a walk. I miss that. We have to stay—excuse me—we have to stay within this area unless we get a special permission and someone will take us. I find that I couldn't believe this would happen. I didn't know that was the fact. Now I said "That's the fact? I live with it."

### **Effects on Enjoyable Activities**

Visual impairment can have an impact on activities that were once enjoyable in the past and often taken for granted. Changes in their day-to-day activities may be curtailed or modified as a result. Activities related to knitting and sewing, sailing, reading, cooking, drawing, and gaming were specifically mentioned.

### ***Knitting and Sewing***

Judy proclaimed to be a seamstress and knitter in one of her various “non-paying” jobs. At one time, she belonged to and volunteered with a knitting group that would sew patches together and make quilts. However, because of her visual impairment, she stated that she could no longer engage in that activity. “I haven't been able to thread a needle for a while.” She shared that she is the leader of a knitting group in her residence. Between herself and another woman, she would knit things for charity. “We have knit things actually...I'm in touch with someone from Molloy College, where they have a thing on Martin Luther King's birthday, they get volunteers to come over there and sew together squares that have been knitted by people all around the county.” She mentioned that another woman in the residence has a daughter who works at Molloy College who knew about this and thought her knitting group could help. “Until the pandemic came, we would knit squares and they would be donated. We'd have yarn donated to us and then we knit things and donate them to other things.” She was elated that she was going to become a great-grandmother and wanted to knit a baby blanket, but she became sad when she realized that she would not be able to do it.

The knitting. I was quite a proficient knitter and all of a sudden, now that I'm about to become a great-grandmother, I wanted to knit a baby blanket and I couldn't do it. I tried six times. I ripped it out and started over again. There was so many mistakes and drop stitches and holes and things. I can't do it.

Ronnie confessed to the researcher that she, too, used to be able to sew. She mentioned that because of her visual impairment, she could no longer participate in that activity, which saddened her. “Well, I used to be able to sew and I can't see the needle. I can't do that anymore. I gave my sewing machine away.”

### ***Sailing***

Audrey was a sailor for 30 years and was in charge of all the excursions at her residence. She claimed to have planned about 30 of them in the years she resided there until she could not anymore because of her sight. “I sailed up until the sight got so bad, I couldn't see. I had my own boat; in fact, I think there's a picture over there.” Because of her failing sight, she “had to give up my boat; they donated my boat to a school out on the island.” She continued to talk about how much she loved sailing and that she did plenty of it, having sailed to many places, including the northern part of the United States, the fjords, the Greek Islands, Australia, and New Zealand. “I loved sailing; I did a lot of it. Oh God. Really, really—sailing was my life. So that was my passion, sailing.”

### ***Reading***

Alan was asked by the researcher if reading was important to him. Not only was reading important to him, but memorizing things was just as important and he considered it to be a part of his routine: “Yes and memorizing things. I just memorized Macbeth’s ‘Tomorrow and Tomorrow and Tomorrow.’” He considers reading more or less the same way he does his daily workouts.

I do my workouts three or four times a week, my reading Shakespeare, and television, those areas. I keep abreast of the news. I'm very high on Tucker Carlson. Somebody bought me a dictionary. They gave me a Christmas gift here as a dictionary. I said, "Do they have every kind of words? I may want to look up something." I'm very curious about words.

Audrey was an avid reader who discovered that due to her visual impairment, she is no longer able to read a book. “I used to read a lot, I used to like to read—mostly fiction, mostly

fiction, or biographies.” She compared actual books to audiobooks, which she has adapted to, but stated, “I think the difference is you don't get the emotion as you do with a talking book because first of all you don't get accents, you don't get the emotion, the feelings that come out when people talk and everything.” She is an insomniac who has difficulty sleeping at night. She was excited to share that she found enjoyment in the audiobooks.

I'm sitting listening to books on tape eight hours, I'm an insomniac, so I don't sleep well at night, so I'm listening to it at night, I'm listening to them during the day. I love books on tape; I really, really do. Talking books is a free service of the Library of Congress.

Charlie is a retired priest who attends daily Mass. When asked if he participated in the Mass, he stated that because of his visual impairment, he could not be the primary celebrant. He also stated that he also had a fear of falling, which would limit his role. “They call it concelebrate, but I don't volunteer to be the celebrant because I cannot read. I remember by heart some prayers, but I cannot read, and I could not walk quite well. I'm afraid I'm going to fall. So...”

Dorothy when asked about reading, she stated, “I never liked to read. Even as a child, my mother would yell at me, ‘Go read a book!’ and I don't like it. I just never...I only read what I have to read.” She revealed that she does have difficulty with reading, especially when it comes to purchasing things. “Well, I have to order things on the internet and sometimes I make errors and probably most likely they're my errors, because I can't see too well, figures and stuff like that.” She was asked if she had difficulty in reading labels.

Well, before, I could do without my eyeglasses, but since this macular showed up within the last six months to a year...I always was able to read labels and stuff like that without my eyeglasses, but now I can't read any of that stuff and I have to put my glasses on.



Sometimes, I have to use a magnifying glass now, because I'm in the process of getting new glasses and they don't know whether or not it's going to work.

Judy was asked what would happen to her if the magnifier were taken away from her: “I wouldn't be able to read.” She claimed she can read if the paper is nice and white with dark-black letters and if the letters are not too small: “I can read them still, but the kind of typewritten or whatever things that you've given me, I could not read easily.” She likes to read a newspaper but cannot due to her vision. She verbalized how the progression of her visual impairment influenced her ability to read. “In the last year, it's gotten much worse so that now I'm at that stage where I can't read things that I was on...I'm in an adjustment period.” She was asked if she could identify and correctly pick out items while shopping (i.e., grocery shopping). She sadly stated, “Not anymore. I was just there yesterday and that's exactly what happens. I can't see the labels. Can't read the labels.”

Kim expressed displeasure by the fact that his visual impairment impacted on his ability to read, which he enjoyed doing: “I cannot read the Bible. I can't understand, I cannot read everything.” When asked if that was important to him, he replied, “I couldn't read Bible and I couldn't read the paper. If I see papers, I got some kind of headache here. So, I couldn't even read these things. Blurred, you know.”

Larry enjoyed reading and had several newspaper subscriptions but shared how his visual impairment limited his ability to read. “Well, I can't read the newspaper.” When asked if reading the newspaper was something he enjoyed doing, he stated, “Well, yeah. I still get the *Times* delivered, but my wife reads it mostly. I read the headlines.” He also emphasized that “newspapers are not made for visually impaired people.”

Marlene verbalized how reading (something she liked to do) became difficult for her: “I

like to read. It's hard for me to read. I have to lift the glasses up so I could see better. I'm trying not to let that affect me. That's why I stick to the puzzles. Large print." She was asked how reading a novel would affect her: "It would be strenuous."

Ronnie verbalized she was a big reader. She mentioned that she lost interest in the activity due to her visual impairment. "I used to be a big reader and I really don't. I don't do that, because first of all, when I buy the papers and things, I don't have the patience to stick with it."

S Janice told the researcher, "I loved to read." She stopped reading "because I couldn't see." She was asked if anything was done for her regarding this. "I read books on tape." She proceeded to show the researcher her book player and demonstrated how to operate it. "I can't read. And I loved to read." She was asked if she was provided with books with larger print. "Yes but I can't read it. I'm legally blind." She was asked what was the one thing she missed most because of her eyesight. "The most thing is the reading. And my iPad." When she was able to read and when her eyes were better, she was asked what kind of stuff she would read. "I read novels. The newspaper. Anything I could put my hands on."

S Mary always liked to read but finds that it's not enjoyable because she gets tired: "I always liked to read, but I find it very hard trying to hold the book with one hand and the magnifying glass with the other. It takes me a long time and it's not as enjoyable because I'm getting tired."

S Regina mentioned what she missed most about her recreational or social life as a result of her visual impairment:

Reading. I liked reading. That's my biggest, biggest thing. I'll tell you what I find very helpful, the large-print books. But they're more expensive than the regular books. I think that you should push that. Why are they more expensive? The book of the same title is

more expensive than the ordinary. Well, that's my big problem.

### ***Cooking***

Dorothy was asked if she did any of her own cooking and whether or not she was able to see the stove and the knobs clearly enough so she would not burn or overcook anything. She replied “Yes, I do. I do.” She admitted that she does not follow any recipes anymore because she is “not into that” and “I haven't got time to play around.” She stated that she has cooked in the past because she likes to eat but because of her visual impairment had sought other ways to assist her with recipes. “I've definitely cooked. I've cooked my steak. I like meats. I cook meats and stuff like that. Pasta. I used to make my own sauce. Now I don't make my own sauce. I get it out of a jar.”

Judy was asked if she did any of her own cooking. “Not a lot, but I do bake cookies.” The researcher asked her if she could see a recipe and if she needed to read a recipe in order to bake. “With a magnifying glass, yes.” She was asked how the cookies came out after baking them.

The cookies come out all right. I need to use the magnifying glass to see the different dials on the stove and on the microwave. We have a dinner...Sometimes we eat downstairs. Sometimes it's delivered here, and I have to reheat it. So, I do use the microwave a lot and I find myself looking with the magnifying glass. My vision seems to vary. The doctor said that would be normal.

She was asked to clarify how her vision varied. “Sometimes I can see what it says on the microwave and sometimes I can't.” She continued to mention that she does not have to worry about her food as she is provided one meal a day within her residence. “They provide one meal a day, the dinner really. So, we're on our own for breakfast and lunch, but I used to enjoy cooking and I don't cook really anymore. There's no reason.”

## ***Drawing***

Judy liked to draw, and many of her drawings were hung on the walls in her apartment and outside of her front door. Because of her visual impairment, she had to give it up. “Well, I used to do a kind of drawing thing. I can't explain, but I could show you what it is. But I can't do it anymore.” When asked why she could no longer do it and if it was because of her eyes, she replied, “Because I can't see it, yeah.” She proceeded to show the researcher her artwork and described what it entailed.

I have this picture hanging outside my door. I used to draw these. They're called Zen tangles. It's a strange form of what somebody considers an art form. I don't know if it is, but it involves, as you see, a pen with drawing very fine lines. So, this is obviously something I can no longer do.

## ***Gaming***

Alan was a sports enthusiast who would rather play sports than watch them. While never a big game player, he has become part of a group that plays games. “Nothing has prevented me, either athletically or doing literature exercises, nothing that has prohibited me from continuing.” He became involved in “therapeutic games” while receiving physical therapy, stating “Oh, they have computer games in therapy. When I had to go for therapy—which is very rare, but when I did go—I once became involved with those games.” When asked if he enjoyed it, “It was alright. I'd rather do the real thing. I'd rather play sports,” but he recognizes his physical limitations. He was asked if he would be interested in participating in a facility sports activity.

Oh yeah, but I'm afraid that's not in the offering (referring to pandemic-related restrictions). I occasionally attend a resident meeting and I have recently been inducted into the Bingo game and Pokeno, which I had never participated before, but I'm doing it

as a favor to some people. They need another body.

He claims he has “become a Bingo nut” and he can see the numbers on the Bingo card although he must take his magnifying glass: “If my eyes become tired, I use this.” He was asked if he plays more than one card and if the card was big and large enough for him to see the print. Being a movie buff, he replied in a humorous tone, “Gloria Swanson said in the movie with William Holden, *Sunset Boulevard*, ‘I am big; it's the pictures that are small.’”

Audrey enjoys games and will often go to her living room with her spouse after dinner. “I’ll even go into the living room. We have the big TV in the living room, and sometimes when we come up from dinner, we’ll do a crossword puzzle or Chuck will put on Shark Tank.” She admits it is difficult for her to see the screen, but she can enjoy a program by listening to it.

Judy engages in games in her apartment where the surroundings are known to her. She meets regularly with a small group of women. As for the frequency and types of games she participates in, she stated, “Twice a week, I play bridge. Once a week, I play mahjong. People come here. My weekly mahjong game is right here at this table.” When asked if she needs her magnifying glass to see the tiles or to read the cards, her reply was “So far not.”

Margie likes to play games Bingo. When asked if she could see the cards, she replied, “Yes, they had the numbers big enough. They’re not small.” She expressed being happy as that was an activity she enjoyed, but that was curtailed due to pandemic-related precautions. She mentioned that it was previously held in a recreation area elsewhere in the building where she was able to sit at a table with other people. She stated she could see, play, and socialize with others. She verbalized that she was not a big TV watcher and would rather play games on her phone or computer:

I have television on. I did at home also, but to me, it was just like noise. Because to sit in

a completely still room, I am not crazy about that. I'll either play word games on my phone. I love word games.

When asked if she could see the word games on her phone, she added, “Yes, I love Scrabble, but Mary Ann doesn't like Scrabble. She likes Boggle. We play. But yeah, we'll engage in games. And I'll go on the computer and I'll...” She was asked about her computer and if she could see things on the computer. She pointed to her computer on a table in front of her. “Yeah. On this computer. Yes. Yes. On my phone, it's more difficult. So, if I want to see something like Facebook or something, I'll use this” (referring to her computer).

Margie mentioned that she liked to do word searches and that she had been given word searches a couple of times but not on a regular basis: “Recreation has given them, and they've been in large print. The circle words and crosswords and different activities. That kind of stuff, I like a lot.” She was asked if she'd like to have more of those types of activities given to her.

That I would have liked. Like I said if they gave those kinds of things. I do have word search, but I get the ones in the large print. Like my own books and crosswords, yeah, because I've done them my whole life. I like them.

S Janice was asked if she liked to play any games: “Oh yes. Bingo.” However, when asked if she could see the Bingo card, she answered, “Not anymore.” She was asked whether she would attend if Bingo were to resume (as activities in her facility were curtailed because of restrictions due to the pandemic): “No. Well, I can't see it. My sight has gone down.” She stated that even if the facility were able to get her a bigger card so that she could see it, she would not participate as “They don't have it anymore.” She listens to the news on TV (Channel 7), watches Jeopardy, and likes trivia-type things. When questioned if she'd play Jeopardy if held as a group activity, she answered, “Yeah.”

S Regina was asked about whether or not she liked to play games. “Oh, yes. I did the puzzles every day.” When asked if she still does them, she replied, “No, I can't see the print too well.”

As a result of their visual impairment, life as “previously known” had an influence on “moving forward.” Changes in day-to-day activities were curtailed. Participants expressed how their visual impairment affected their inability to recognize people, their safety (especially a fear of falling), their inability to drive, their need for additional lighting, their loss of freedom, and their effect on enjoyable activities.

### ***Theme #3: Adaptation to the New Normal***

Visual impairment can often lead to obstacles and challenges where acceptance and adaptation to both becomes the “new normal.” Recognizing limitations, learning new skills, improvising when necessary, and seeking out solutions helps those affected to function independently. Being able to accept the “new normal” to overcome obstacles, conquer challenges, and adjust to stay socially connected allows one to enjoy activities, thus maintaining quality of life. Participants in this study described how they were able to triumph over both.

#### **Recognizing Limitations**

Charlie recognized that he has difficulty in reading items such as letters and bills. He also has difficulties with basic activities such as passing and pouring items while in the dining room.

They just came here once really, to read all letters for me. I cannot read them, so that's tough. Even when I write a check, I have to ask Mary to write for me and everything so I can sign my name. Because I'm stubborn, I thought I could see, but when it comes to reality, I could not. Most of the time I eat breakfast, lunch, or dinner here, because I cannot see quite well. I don't want to use my hands and knock everything down.

He also expressed that he needs to rely on his walker (which he is stubborn in using) to ambulate safely due to his visual impairment and history of falls.

I like to go out for a walk, but I have my walker. And then, sometime a walker, when I hold it like that, the wheels ruin because that walker is not for the carpet. Only, for the cement...all of those stuff. So, I don't go out much. And at the same time, I've done the surgery, so when I go out, I don't want to face the sun.

Dorothy recognized the limitations of her visual impairment when it came to filling out forms and the effect it has had on her ability to see figures clearly.

Well, it limits me in many ways. I cannot fill out my income tax forms anymore, because I can't take a chance of making an error. And I can't see figures correctly. The figures are drunk; they move and it's very difficult to focus and make sure if what you're seeing is accurate. So, I look at a number...1141, that number will come across to me initially as 145. I would lose one number. So therefore, that's a big impairment for me as far as working with numbers and that also applies to reading. It's the reading ability and reading and comprehension of what you see.

She has also recognized limitations in terms of being able to navigate her surroundings outside of her residence such as going to doctor's appointments. She acknowledged that along with her visual impairment, she has weakness in her knees and may not be able to handle unfamiliar territory. She relies on feedback from others but constantly has to think and re-think how she will be able to handle the navigation and ability to get where she needs to go.

We're trying to arrange to see a doctor and I'm having a big problem about that. Because of my knees, I don't know if I can handle the territory, because I don't know what the place is like. I don't know how much walking is involved from the taxi or whatever we



take to the doctor's office...I don't know whether I can do the walk. So, I'm going to ask somebody who goes first to report back to me about how far, how much I have to walk. And everything I do, I have to think and rethink and see whether or not I can handle it. That's the biggest problem is knowing, if I have to go out, what would I have to deal with?

She has also recognized that while she considers herself a “very independent person,” she may need more assistance with daily tasks.

I'm a very independent person. I could very well use an aide and I could very well afford an aide and I don't want an aide. I can't put a nail in the wall and that bothers me like anything, because I used to fool around with doing things like that. And I can't do that anymore. I can't balance myself for one thing, because my feet won't let me balance myself, stand up straight. Have to hold on with two hands. That's a very deep limitation for me.

Judy recognized that she is unable to read subtitles while watching a movie and this limits her ability to fully enjoy a program. She questioned why the subtitles are written in white, as it limits those with visual impairments to see them: “They'll have something with subtitles and the subtitles are in white. The background is also white. I'm thinking, ‘What were they thinking of? How do they expect anyone to see this?’” She recognized that she is not a texter, and because of her visual impairment, she refrains from certain activities such as watching television: “I'm not good at the texting; I'm really not. And what I don't like to do are things that I do not see on television.”

Larry was asked if his visual impairment has held him back from socially interacting with others. He initially replied that nothing held him back. As he pondered the question, he admitted

to the researcher that limitations existed. When questioned what those limitations were, he stated, “My own inabilities rather than anything.”

Mary Ann stated she still sees herself as social and friendly and willing to help others but knows when she is unable to assist. “If somebody comes to me and asks me for something or they need help, I’ll help them as best I can. I mean, if it comes to something that I got to read, no, I got to tell them sorry.” She admitted that she relies on her neighbor in the room next door to help her with things she is unable to do: “Margaret reads the card for me.”

### **Learning New skills**

Some participants expressed a desire in learning new skills. Zoom was one type of technology that some of the participants became engaged in especially because of the pandemic. Audrey stated that “Zooming is a big thing” and questioned “Where’d that come from?” She took advantage of the technology as it allowed her to continue with activities in the residence (i.e., exercise classes). She was asked how she was managing with the technology: “I think okay, as I say I have my moments of frustration where I can’t do all the things I used to do. But that’s part of life; everything isn’t a bowl of cherries. But I’m doing okay, I’m doing okay.”

Judy stated the one skill that helped her through the pandemic was Zoom. She found the technology to be easy to learn and use. “It was the thing that got me through the pandemic without too much distress because they had all different kinds of things on there.”

Ronnie told the researcher that while the pandemic disturbed the school system, students coming to class “would be prepared to go on Zoom.” She was unfamiliar with that term, so she sought out information. While the pandemic heightened, she became very interested in learning about the stock market. “I looked up Zoom on the television and it was 111. It had jumped two days before. It was \$111 a share.” She called all her grandchildren, encouraging them to buy

stock in it, saying, “Instead of going out this weekend and spending \$100 for dinner for two, buy one share of Zoom.” She laughingly claimed that not one of them did it. She described how she called her broker to see if she could purchase stock in it. Her broker told her, “We don't even have that on our list.” She continued, “He'd have to put it on his access list. And the next day it was like \$30. And I said, ‘Forget it.’ But anyway, it did very well.” She laughed about it “because I said I never buy too much, but I do invest in things I think are exciting.” When asked again if the pandemic forced her into learning a new skill, she laughingly replied, “That's right. It did. It did really good, and I have them all now watching Maria Bartiromo on CNBC.” She relayed a discussion she had with her son regarding learning braille. She did not want to spend years learning it since she is at an age where she does not have many years left. “I work the best I can with what I can use.”

Some participants did not express a desire to learn new skills. Alan claimed a computer with e-mail capability was accessible within the facility, but he had not taken advantage of it stating, “They have an email downstairs, but I very rarely have used it.” While he has a cell phone, he rarely uses it for other things. When informed that his phone could allow him to do many things such as shopping and banking, he stated that there were “very few things” he could do, citing that “I can just dial a number. I still haven't cleared my voice box.” He was informed of the many things that his phone could do for him, for which he stated, “It's a walking encyclopedia. I'm so amazed by things, even though I can't do them.” He was asked why he would say that he could not do them. “I've never been good with mechanics and things, even pre-pandemic.

Ronnie informed the researcher that she was approached by her son about learning how to read Braille due to her visual impairment: “My son said, ‘Mom, why don't you learn Braille?’

I said, ‘At this stage in my life, I don't want to spend four years in classes learning Braille. I don't have that many left. Come on.’” While not totally excluding the idea of learning a new skill, she stated, “I work the best I can with what I can use.”

As per S Regina, “I'm not able to learn the smartphone. At first place, I don't have much of a need for it and I don't want to go through the learning process for that.”

### **Improvising**

Audrey described how she has improvised with everyday tasks due to her visual impairment: “So, there are things to help us. I have a talking scale. I stand on it and it tells me how much I weigh.” She also spoke of how she is able to maneuver herself safely throughout her residence using items such as landmarks to let her know where she is.

I know this building so well over these 11 years. I know where every room is. You know, where every hall is and the pictures on the walls. I know where I am in the building because I can't see the subject matter but I see the frames and the groupings. So, I know where I am.

### **Adapting**

Audrey shared that as a result of her visual impairment, her other senses have been heightened—specifically auditory, tactile, and smell. When asked if her senses were heightened, she agreed and stated, “This is true. This is true. Mostly, mostly the hearing and that was the first thing that really, really improved.” She told the researcher that she was able to detect when something is going bad in the refrigerator. “I'm the one that smells the food that, you know, that's been in there several days.” She described how she can tell if something is going “bad.” “Let me smell it because it either goes out or I keep it, you know, and also taste, you know, if I'm not sure and it doesn't smell, you know, really bad I will take a little taste.” She further stated with a

chuckle, “None of us have ever gotten sick. It's just amazing how the body works. It really is.”

She further mentioned that when she cannot see faces, she relies on voices.

Oh yeah. I know about the voices of about 80 people in this building. Well, you know, it's the tone; it's the cadence. I mean different things that help you with that because I can't see unless they have a very strange walk...if they're close to me. There's one guy here, he's now in the Tuttle Center. He was the first person in this building, in August of 2010. When he walked, he walked with his two hands clasped behind his back. He always walked that way. I could see the silhouette of him, so I would know it was Bob. He had a high-pitch voice. You know that the pitch of the voice, the cadence. There are a number of things in the sound of a voice that that can help me recognize them.

She showed the researcher how she uses a template (which she found through a catalog named Maxi-Aids) to assist her in where to place her signature, especially if she needs to write out a check. “They just have so many—the little template I use, that comes from them, too. They have another one for checks, to put over a check, a standard check if you have specially made checks, and it's great for somebody who can't see.” She proceeded to show the researcher a machine that she uses to assist her in reading items:

This is a great machine and I'm using this more and more since...it's called a clear reader.

It'll take a minute to warm up. What this does, it takes a picture of the printed material, not handwritten because there's no set way of reading that.

Dorothy, in addition to her visual impairment, has arthritis, which has made ordinary tasks more difficult for her. She shared how she was able to improvise husking corn that was brought to her by her niece.

It's physical impairments that prevent you from accomplishing certain tasks. My niece

yesterday brought me some corn, but it wasn't husk. And she said, "Oh, I should have had it cleaned for you and stuff like that." She knows that my hands are not so good. I have peripheral neuropathy. You name it, I have it. And so, I had the corn last night and I took pliers and I opened it up with pliers. And then, I took the scissors and I cut the husk, because I couldn't handle it with my fingers. Your thumb is the most important finger in your hand. I know that.

She liked to cook, but because of some of her limitations, she has improvised: "I used to make my own sauce. Now I don't make my own sauce. I get it out of a jar." Because of her arthritis, it had become difficult for her to ambulate and get around the facility. She now relies on the use of a power wheelchair, making it easier for her to accomplish tasks while contributing to socialization with her peers. "This is a huge place, and you still have to get around and it helps me to socialize more. I can go down to go dinner; it's easier to go to meetings and stuff like that, pick up my mail." She claims to be an excellent driver and the wheelchair gets her where she needs to go within the building. When asked if she uses it to go outdoors, she replied "to get some sunshine."

Marlene was asked if she could see the clock in her room. She was sitting in a wheelchair adjacent to her bed and the clock was high on the wall over a doorframe. "From here, no." She was asked if it was important for her to know what time it is. "Yeah. Even if I close this eye, I can't see." When asked how she knows what time it is if she cannot see the clock; she replied, "Well, there's a clock on this phone. Sometimes I wear my watch. They have clocks in the hall and the dining room. There's clocks all over."

S Mary celebrated her 100th birthday in early 2021. She was disappointed that she could not have a big celebration within the facility and that other accommodations needed to be made.

She stated that there were other Sisters in the vicinity of her room, but due to the pandemic, they were not allowed to leave their rooms. She mentioned that an accommodation was made for a small group to get together in the facility.

The only time that we happened to be able to visit was my birthday. I didn't have any outside visits. I didn't see any family members, because they weren't able to come in, but what they did, we had a television. The Sisters from the other convent where I had been, I think they called it the Zoom. Well, that's how I celebrated. Sister P had it set up and then we had a little ice cream and cake. There wasn't any time. I think there was three down there and myself is four; that's four of us, and Pascal would be five. It was just that group that would be together. We wouldn't have the other Sisters or anybody else. We didn't have any members of the families come in. It really was hard to come back to your own room with nobody.

### **Use of Devices and Gadgets**

Devices and gadgets can be useful in one's engagement in social and recreational activities. Those devices and gadgets include items such as audiobooks, scanners, digital newspapers, clocks, and enlarged books, just to name a few. Participants described how those devices and gadgets assisted them in their own engagement in social and recreational activities.

#### ***Audiobooks***

Judy enjoys reading but has found it difficult to do so because of her vision: "I have a mild hearing loss and I have hearing aids." She voiced that this has not prevented her from enjoying the activity.

The new hearing aids I got are synced to my iPhone, so I realized that I can get a book from the library, an audio book on that phone that I hear only in my ears. Nobody else

will hear it and I can. While I'm just walking around, I can be listening to a book, which is what I was doing when you came in.

### ***Scanner***

Audrey was enthusiastic to show the researcher a scanner that allows her to read things beyond the use of a magnifier. “This is a great machine and I'm using this more and more since...It's called a clear reader. It'll take a minute to warm up. What this does, it takes a picture of the printed material, not handwritten because there's no set way of reading that.”

### ***Digital Newspapers***

Judy was an avid newspaper reader and yet found it difficult to read because of her vision. She informed the researcher of the time she went to cancel her newspaper subscription.

Well, I canceled *Newsday*. Then I got some messages from *Newsday*...we want you back, and they offered a very good rate. So, I'm getting *Newsday* now and it includes the digital edition. So, I'm not reading it so much in print, but I am reading it more on the computer. When asked if that was good enough, she replied, “That's been very good for me, yes,” but as for digital puzzles, she was not sure if that service was available: “I don't think so—given up on that.” She was asked if giving it up bothered her. “No, not really. My children bought me a book of large-print crypto quotes. So, I have other things to do.”

### ***Clocks***

Audrey was asked about the many clocks she had in her study. With great enthusiasm, she demonstrated the use of one of her clocks (located in her bathroom), its features, and how it worked: “In the morning, I have this in the bathroom. When I hit that (a button), I get that. I know what day it is. I know what day of the week it is.”

S Mary has an illuminated clock on her wall across from the head of her bed. She was



asked if that helps her keep track of the day and time.

I could always see the day and the time, and I know just by the very fine writing down on the bottom where it says July 6th. I can't really see that, but I know what month it is and then I keep recognizing it when the month changes. I know that by the size of it, the amount of the letters, I guess, but I don't really see that perfectly.

S Regina has a clock similar to another resident in her facility which is placed on the wall across from the head of her bed. She was asked by the researcher if she could see the clock: "I can barely see it, to tell you the truth. I have to go up to it to read that" (admitting she has to get close).

### ***Enlarged Books***

S Regina is an avid reader and admitted that she needs to use a large, flat, lightweight magnifier to help her read. While she finds the magnifier helpful, she would prefer larger printed books.

Sister C\*thy T\*\*, she's the Sister that works with handicapped people. And she has gotten me a book in the large print, so that's what I'm using now. And it's much more comfortable, and I can handle it very nicely.

She then pointed to another book, saying that she got that one from the local library: "The library has quite a selection of them." She was asked how she felt about the larger books. "I feel very happy. I love knowing that it's here."

### ***Color-Coded Raised Buttons***

Audrey was observed to have many phones within her study. She stated that she relies on her phone and manages her investments on it. She was asked if she uses a regular phone or a bigger phone.

Well, the problem is my daughter has set up the phone system in this apartment. Chuck and I each have our own phone number. She has set up an intercom if I want to talk to him. He works in the other bedroom down here. I push this button and it buzzes him, so we have an intercom between the two of us.

The researcher asked about which phone she used and how she contacted the researcher as she initiated the original call.

I used that phone, but it's getting so hard now. Now there's bigger phones that I can use, and I forget what they're called, but they don't have all the things that my daughter has on here. She has set this up for us to use and I have little button things on some of these, so I know that's what it is.

She mentioned that she uses the little dots, which are color-coded, to assist her in locating dials on appliances such as her phone, her recorder, and microwave. "Yes, yes. I use those things all the time in the kitchen. I have them on the microwave. I don't do any cooking. I can't cook because I can't see the dials or anything like that." She was asked if they were helpful to her in navigating those items. "Oh yeah. I know because I can't read the writing on these things. There's different shapes of the stick on buttons. They are very helpful."

Ronnie expressed gratitude for living where she does, especially because of her visual impairment and the support she receives from others. She spoke about another resident in her facility who is also visually impaired and how she learned of the color-coded dots that can be placed on appliances to assist her with the controls.

One of the ladies who is totally blind, she said, when her husband gets something for her, he moves everything and she's ready to kill him. But he's learned too that he has to put everything back where it belongs. They've given us little dots to put on the microwave.

Because sometimes I can't read. I can't find the light button. So, I feel for the dot, and I know that the spot to press is to the left.

She mentioned how it is difficult to access appliances when she goes to visit her daughters.

When I go visit my daughters, her microwave is impossible. The letters are all the same color as the background. So, you can't even read it and it's been put in a new kitchen.

They put in a new kitchen, and it's so high that you can't see it at eye level. It's a lost cause. So, I put the dots on hers to where I know where to push to start and to stop. And then I don't have to...It makes it easy. She said even she uses it!

### ***Special Telephones***

Audrey spoke of a special telephone that she uses to help her with making and receiving calls.

My phone is white. The buttons on it are black. I have to get right on top of it, maybe two inches away, to be able to dial. Now, I know there are phones. There's one called the Jitterbug. That's a larger phone with larger buttons and everything. Those kinds of Jitterbug phones, you don't have any of those things on it. So, I don't want to give this phone up, but my nose is getting closer, closer to the phone every month.

S Regina was observed to have a special telephone that was on her table at the time of the interview. "Yes. It's like a cap, is that the word? No. What's the name of it? It's where it shows up here. So, when someone calls you, it translates that to you so you can..." She was asked if the phone printed out what was being said by the caller. "It prints it. Yeah. I can't read it because of my eyesight." She was still happy to have the phone and informed the researcher of how she was able to obtain it.

This I got when I was in Queens about 10 years ago maybe. Maybe you heard the story.

The major networks decided they wanted to do something to contribute to people with handicaps. So, we all got these things free. If it has to be serviced, they take care of it.

### ***Televisions***

Audrey was noted to have two television screens in her study: one with a large screen and another with a smaller one. She pointed out, “This screen used to be over here with my TV. This is actually a TV monitor.” She mentioned that her daughter was involved in deciding where the TV and monitor would be placed. Her daughter told her, “You know, this is crazy. Let’s bring it over here because it’ll blow up things a little bit more.” It was suggested by her daughter that the placement was to make it better for her since she was not using one of the TVs. “All this is set for now is Channel 12, because that’s the only thing I really look at or listen to because I like to get the local news, and this is my working one now.”

Dorothy stated she has a large-screen TV and considers it to be a godsend. She can see everything on the TV but “not wonderfully” and that she is “thinking about getting a new one—one of the ones I can hang on the wall that’s bigger.”

Larry was asked if he had any televisions in his apartment. “Yes, and we have a smaller one in the other room.” He was asked if he watches a lot of TV. “No, but I watch.” He acknowledged that a larger screen was easier for him to see.

Raymond has a television in his room located on top of a table across from the head of his bed. “I have a large television. They (facility) have a small television. But then my daughter said, “‘That’s too small for you,’ so they bought me this large one.” He was asked if the larger one helps him see better. In a matter-of-fact way, he stated, “Yes, it’s right there; you can see.” He clarified that the larger television was better for him. “Oh, definitely.” He was asked about his frequency of watching television and the programs he enjoyed. “On an average day, I’m here

laying down. I watch lots of television. I'm into the old Turner Classic Movies because I grew up watching black-and-white television, so I like the old classics and I watch the sports, baseball.”

### ***Computer***

Charlie had a desktop computer with a screen noted on a table in his living room. He stated, “I never use it for more than a year. I have a printer, too.” He acknowledged that he does not use any of it: “No, I don't use at all.” He further described why.

Because, when we have the news from the Diocese, from the office of the Bishop, or somebody, they put everything in our mailbox. Mary makes copies and put everything in our mailbox. So, I don't use. Even, I have my, what do you call that, online, I forget it, in the Diocese. They send everything to you. But I never take a look.

Dorothy was asked if she has computer: “I have a large screen for my computer.” She was asked if she was active and if the computer gave her everything that she needed: “Yes, the computer is fine. I have a large screen...January got a new computer and it's a 27-inch screen and I could enlarge my printing. I have no problem reading the computer, reading the screen.”

Judy owns a computer and uses it for a variety of reasons such as shopping and purchasing food when she cannot go outside to buy it.

So, I have other ways of getting food. I learned a lot about online shopping, which I'm pretty good with a computer, so I had no problem in doing that. I do a lot of financial stuff online. Pay bills online. Zoom. I'm still doing a lot of things on Zoom.

She mentioned she was not familiar with Zoom, so she researched it on the computer: “I just typed the word *Zoom*, and the next thing I knew, the whole thing and how do you install, click this, click this, I'm on Zoom. It was very easy.” She referred back to the time where she worked with her husband and how that taught her how to use a computer.

My work with my husband and his track meet is what taught me all this because we got a computer in our house pretty early in the game as far as people going about the mid-1980s. I fell in love with it the minute that came into my house. I was just so intrigued with it. I had to write code in those days. They didn't have Windows and all that stuff. She mentioned that she prefers the use of her computer versus the use of an iPhone.

What does make me crazy is this iPhone. Now my birthday present was an iPad, which I wanted in anticipation of my great-grandson being born because it has such wonderful pictures on it. They drive me crazy. I don't feel comfortable yet with either one of them.

The iPhone or the iPad. I still go back to my old computer.

She was asked if she is able to text versus email: "Well, I do email rather than text. The computer is a godsend to people with low vision because you can make the font bigger and make everything bigger. That's an enormous help to me." She was asked which she uses more, the computer or her TV: "Oh, my computer. No question about it."

Larry was asked if he owned a laptop: "We have a laptop in that bedroom there with a large screen. I have an iPad; my wife has an iPad." He was asked about what types of activities he uses his iPad for. "I play games on it. I play Solitaire, World Series of Poker." He was asked if he could see the screen. "Yes, I can." He described how he communicated with his children who were unable to visit due to pandemic restrictions placed on the facility. "Well, my kids have that (computer) and a very large screen, which works in conjunction with my laptop, but it's a huge screen and a very large keyboard." When asked if this helped him, he stated, "Yes, immeasurably." He went on to tell of a family Zoom meeting held once a week on Wednesdays. He mentioned that his spouse assists in the connection of Zoom with his family and that he can distinguish everyone on the call. He stated he enjoyed the calls because "It's nice because I get to

see my grandchildren. I have eight of them...and two sons, two daughters-in-law, and one daughter.”

### ***Magnifying Glasses***

Alan was asked if he used any assistive devices to help him read, as he is a lover of poetry, specifically Shakespeare. “Yes, I use a magnifying glass.” He mentioned to the researcher that he did not receive one from the facility and that he purchased it on his own. “I ordered it from a catalog. They had it advertised for \$11, and I liked it so much, I got two of them. I have one in my drawer and one here.” He was asked what would happen if he lost his magnifier. “It would be very difficult. I wouldn't be able to read at all.”

Charlie stated, “I have, what do you call that, magnify—Mary bought it, but I don't use it much.” He was asked if he finds the magnifier helpful. He demonstrated the difficulty in using the magnifier. “It works, but I don't like it like that. I don't know. You see that? Yeah. No, no, no. Yeah. You see that?” He was informed that there are smaller ones that can be used in lieu of the larger one that he has. He was asked if he thought that could help. “Yes, I like that one.”

Dorothy was asked if she uses any assistive devices to help her due to her visual impairment. She said, “A magnifying glass.” Discussion ensued about how she receives her meal menus. She stated the menus “came on the television and it came over on the piece of paper for the week.” She was asked if she was able to read that weekly paper menu. “Oh yes.” She was also asked if she needed to use a magnifier in addition to her eyeglasses (which she also wears). “Yes, I have one now.” As for her using the magnifier, “Now, I do, definitely.”

Judy was wearing eyeglasses and took out a magnifier when she was asked to sign the consent form to participate in the study. She was asked if she used any other assistive devices to help her as a result of her visual impairment. “No. Mostly magnifying glasses.” She likes to bake

cookies and was asked if she was able to see the recipe. “With a magnifying glass, yes.”

She was asked if she could see the dials on the oven so she would not burn herself by turning the dials the wrong way. “Yes. Well, it's a very big thing. Yeah. There's no fine detail where to put it.” She stated that she did have trouble with some of the appliances—namely her washing machine. “I do have a little trouble with the dials on the washing machine. That's one of those things. Sometimes I see it fine and sometimes I need a magnifying glass.”

Margie was asked if she used any type of assistive devices for her vision other than her eyeglasses that were worn at the time of the interview. “If I’m reading some small print I can’t see, I use the magnifying glass.” She was asked if she brought the magnifier herself or if it was provided for her by the facility. She replied, “I brought it.” She further noted that she uses the magnifier and yet relies on her eyeglasses at the same time. She was asked specifically what she used the magnifier for. “Small print. Whether it's a letter, whether it's sewing, whatever it is. If it's a small print, I need a magnifier.” In her room on a dresser table top, a big magnifying mirror was observed. She mentioned that she has “one that's a regular one-sided magnifier and the other in the drawer.” She was asked what she used the magnifying mirror for.

I use that when I'm putting on my eyebrows, or if I'm using facial makeup; then I'll use that. That I've used when I brush my hair. When I take my shower and I blow-dry my hair, I use that mirror.

She stated that if she did not have the magnifier to apply makeup, “It would be difficult.”

Ronnie acknowledged that her vision was deteriorating, and she noticed the changes while watching the stock market. She mentioned that she never wore glasses but eventually had to get them.

My vision has diminished. When I watched the stock market, it used to have a straight



line across the ticker tape. And now there are lots of...so, I know that it's been deteriorating. And I never wore glasses until I was 80. I seem to manage without it. But then I was using other devices and like a magnifier. But I finally had to get glasses and they've been very helpful.

She stated that "Rosita" made an appointment for her with a physician to look at additional devices that may be of assistance to her.

When I was there, I saw some of the devices that she had. I don't think I need the big \$600 magnifier. But she showed me. I can get it. It's like a dome light with an LED light. It's a magnifier on top and it's rounded on top. So, the magnification can change, but it's five times the magnification if I need it. And it's the width of a column of newsprint, so that if I was reading the newspaper, instead of having to go like this with the magnifier, I can just go straight down.

S Mary stated, "I always liked to read, but I find it very hard trying to hold the book with one hand and the magnifying glass with the other. It takes me a long time and it's not as enjoyable because I'm getting tired." She spoke of how her niece tried to help her with reading by bringing her a device. "Now, my niece brought me a little...I have it underneath the chair, but it's a little thing where I can stand the book up." The researcher asked her if she was referring to an easel. "An easel, yeah." She was asked if the easel helped her with her reading.

It does, because then I could adjust...I have it on the table there. I can adjust it at the distance, and I can use this left hand just to hold it if it doesn't stay steady, and the right hand with the glass. I can manage on that, but ordinarily, reading, I find it hard to really get adjusted to. I can read large print. If I get a magazine, I can see small prints if I concentrate, but I can't always hold it. It kind of fades out, so I stick to either the large

print or just the easel.

S Regina was asked if she used anything to help her read, such as a magnifying glass, as she was always one to have a book on her at all times: “Yes, I do.” She described what she had. “It's about that size. It fits half the page. A friend of mine got it for me so she could see if I was... help me reading my book.” She pointed to a tabletop where the magnifier was placed and was asked if she could use it: “That I can. I hold it up and... Very convenient.” When asked if it helped, she replied, “Oh absolutely.” She was asked if she could use that magnifier if she wanted to read a magazine or a book. “I do that. I hold it this way. I have to adjust the certain distance.” She mentioned the name of the device, which was “Magnetrans.” She confirmed again that it was helpful. “Yes. Oh absolutely.”

### ***Eyeglasses***

Many of the participants were asked if they relied on eyeglasses to assist them with their vision. Alan stated, “I used to, the long-distance glasses, but the left eye is able to sustain to complete the vision. They asked me why I have two sets; I tell them I have a split personality.”

Charlie was asked if he uses eyeglasses to assist him with his vision.

I will ask my eye doctor if I can have, what do you call, a pair of reading glass. Reading glasses because I'm thinking of motion. Yeah, who has only one eye (laughter)! If I can close this one, I see better. If I don't close it, it's blurry because this one, it looks like it bothers the good eye. I don't know. What do you think about that?

He further added, “I don't want to, what do you call, the glare or the—to hurt my eyes.” He laughingly added, “Normally, my doctor told me to wear sunglasses all the time. So, I should wear sunglasses to talk to you, but I don't want to be a hit man.”

Dorothy was asked if she had anything else to help her with her vision.

What else would help me? I already had prescription glasses and I have—what do you call?—another problem with my vision, which is...what do you call it when you see when your vision isn't lined up? I can't think of the word right now. I need prism lenses, because it helps to line up the line, the reading. I don't need it for distance, or I just need this for reading. And I did use it for the TV; now I'm using it for the TV, but before, I was okay.

She stated there were times when the eyeglasses came in handy, especially with managing her finances and completing her taxes.

I have to keep up with my finances and then there's where I use it. I mean, I did my income taxes for last year and I used the magnifying glass just to make sure I wasn't making a mistake, but I told my lawyer, I said, "You can do it next year for me."

She was asked about her lenses, which she stated were low-vision prism lenses used in conjunction with her power wheelchair. Both assisted her with her vision and mobilization. She stated that she does use her low-vision prism lenses and recently got a new pair of eyeglasses. "Well, I just recently got a new pair of eyeglasses. And I use them for the computer and reading." She mentioned that it was taking her time to get used to them.

Larry was asked if he wore eyeglasses due to his vision impairment: "No, I mean, I never wore...as an accountant, you deal with numbers and small figures and everything. I didn't wear glasses probably until I was 50 or something like that." Several labeled vials of medication were observed on his kitchen counter. He was asked if he was able to read the labels on the vials. He replied with a laugh and a smirk, "With my eyeglasses, of course." He was asked if he uses any other assistive devices to help him with his vision: "I've got my glasses."

Margie was observed with eyeglasses on at the time of her interview. She was asked if

she used any type of assistive devices for her vision other than her glasses. Initially she said “no” but “if I'm reading some small print I can't see, I use the magnifying glass,” which was brought to the facility by her. She was asked if she wears her glasses when playing her games (as she likes to do with another resident in the facility).

I can't do anything without the glasses. I can see you, and I can talk. But if I have to read anything, or like to see something, I could read “Good morning, Margie.” This is good.

But I can't see the smaller print without my glasses.

She mentioned that when mail is delivered to her, she is able to read the contents in the envelope. “Yeah, but like I said, with my glasses. Without my glasses, I can't.” She was observed having a magnifier at her bedside and was asked what she specifically used it for. “Small print. Whether it's a letter, whether it's sewing, whatever it is. If it's a small print, I need a magnifier.” She admitted that she eats her meals in her room versus the dining room on the unit. She was asked if she was able to read the menu to select her food choices. “Yes, of course, with my glasses. Here. This, I can't see without the glasses.” She was asked if she thought having the print made larger on the menu would help her: “Yeah, but like I said, with my glasses, I can read it. It's readable.” She was asked if her glasses were lost, broken, or unavailable for a period of time, that would hinder her in reading: “No, because I have a couple of pairs. I have a backup.”

Raymond stated that he never used glasses while he was working but now wears them since his retirement.

I worked there for so many years and never used glasses, and then all of a sudden when I retired, I found I have several pairs: one for distance and then I have to use one for reading. So, I have a pair of bifocals, which I got after I retired.

He was asked if the glasses helped in him being able to see and read. “Well, they helped me

while I was working. After I retired, there was no need for glasses. But I do have my distance glasses in the drawer and these the bifocals.” He was asked if those helped him see close-up as well as with distance. “Yeah, whatever I have to read.”

Ronnie stated that her vision had diminished and gave an example of when she would watch the stock market. She realized she had difficulty seeing the straight line across the ticker tape and how there are now lots of “bumps.”

So, I know that it's been deteriorating. And I never wore glasses until I was 80. I seem to manage without it. But then I was using other devices and like a magnifier. But I finally had to get glasses and they've been very helpful, but without the glasses, I cannot see it. And it's kind of frustrating. But it's not the end of the world. I think we're pretty lucky.

S Janice wears eyeglasses, which were worn at the time of the interview. She informed the researcher that they really have not helped her with her vision, stating the glasses “don't mean anything to me.” She was asked why. “Because if I take the glasses off, I can see just as well, and the doctor hasn't changed them.” She was asked when she had last seen the eye doctor and was unable to recall when.

Participants demonstrated an ability to accept and adapt to the obstacles and challenges of having a visual impairment. They were able to recognize limitations, learn new skills, improvise when necessary, and seek out solutions to function independently. By accepting this as the “new normal,” they were able to stay socially connected and enjoy activities, thus maintaining quality of life.

#### ***Theme #4: Embracing Relationships***

Relationships with friends, family, staff, and groups can be helpful to those experiencing a visual loss to recognize that they are not alone. The support provided while learning from each

other can assist in reaching a positive transcendence into their new life. Many participants in this study stated that they tried to maintain as much independence as possible despite their visual impairment and yet knew that there was a community of resources to assist them. Resources often consisted of the support of friends (including their peers), family, facility staff, and a support group, with the ultimate goal of remaining as independent and functional as possible. Family members and friends were often called upon to bring in requested items to facilitate recreational engagement, to provide transportation to and from physician appointments and with personal shopping, just to name a few. Participants relied on the assistance of fellow residents and staff to accomplish tasks. A Vision Support group offered in one setting provided an outreach offering support, guidance, a sense of inclusion, and self-worth, with an opportunity for participants to share their own personal experiences, thus helping others overcome their own challenges.

### **Support of Friends**

Marlene, who is an avid puzzle player, relied on a friend to bring her enlarged puzzle books. During the time of the interview with this researcher, she received a phone call from a friend who was in a store about to purchase some large-printed crossword puzzle books for her. She had several books on her bed and bedside table and was able to tell her friend which ones she already had. She can identify her books by the colored binding on the books. “That’s a friend of mine. She’s buying me puzzles. Large print. She wanted to know about the colors because sometimes people send the same thing.” She was asked if she is provided books by the facility. “I think that they have puzzle books downstairs. But everybody brings them to me instead of buying cookies or candy; they’ll bring me puzzle books.”

Judy admitted that there are things that she cannot do and relies on other residents to

assist her. She mentioned something as simple as removing jewelry. She is grateful for the support of others within her facility.

So, things like that that I used to be able to do. I've put on a necklace, and I can get the clasp on and then of course comes the nighttime. I can't get it off. Do I want to sleep with this? Well, I have somebody across the hall. I can ask her, "Can you take this off for me?" She was very handy. I have help all the time. I don't ever feel alone. Even though I live here alone, that's what's so good about this place. I can be alone as much as I want. I just close my door, but I can also open my door as much as I want and be with other people.

Dorothy<sup>2</sup>, who has advanced ARMD and ambulates with a rolling walker, was asked what she would do if she needed help (i.e., using the toilet, as she eliminates frequently due to a gastrointestinal condition). "Well, I guess I would get my neighbors. We share the bathroom. So, I would knock on her door and see if I could get her up."

Dorothy who is very insistent on maintaining her independence and not asking for assistance admits when she does need help and relies on communicating within her community.

I get some help from my relatives and they offered to do some shopping for me, which I can't do. And, but generally speaking, we have a bus access to the supermarket, but it's not operating yet. And...but all my needs are met. That's all I can say. I mean, everything is working fine for me. And I don't feel deprived. I don't feel angry, because I have macular; it's accepted because of my age and I try to communicate with a lot of people in my community. I'm a very independent person. I don't want anybody to help me unless it's absolutely necessary. And I really don't want them to help me unless it's absolutely necessary.

Mary Ann mentioned that she relies on the assistance of a neighbor in the room next door

to assist her with tasks—namely reading. She says she feels bad about having to impose on her for certain things.

I feel bad, thank God for Margaret. If I get something that has to be read or something I don't understand, I have to go to her to read it. I feel bad bothering her for things. You know, if I get a letter, I got to make her look at it and read it for me or something like that. But she's very good about it; she really is.

Larry stated that he relied on his spouse, who is currently ill, to do shopping for both of them. “Up until recently, my wife used to go shopping. Of late, some friends have done the shopping for us. Now, there is a company that does...you can order from. We haven't used them because our friends have got it for us.”

### **Support of Family**

Audrey relies on her spouse to assist her with chores around their residence.

Chuck is wonderful. He cleans up after dinner, throws away what needs to be thrown away, and cuts up the boxes that have to be put in the garbage. He cleans up after dinner every night when we eat up here and that's a big help; that's a big help.

Ronnie spoke about how she relied on friends and family to assist her in the transition from home to her new residence. “I was very selective about what I took. I tried to minimize what I took.” She was asked if anyone from the residence offered to help her move in. “No. My friend told me what piece of furniture should go where.” She further stated that the next day, she got a memo from management. The memo stated they had people here to help her so that they knew the work was done correctly. She told them, “You didn't give me that in time. My friends on the floor were hysterical because, well, first of all, they (facility staff) saw about seven or eight of my sisters or my nephews and my kids helping me.” To understand the process moving



forward, she clarified the process with the management staff.

S Mary, who enjoys painting, was asked why she enjoys it so much.

I like to do it. I know that I'm trying. My niece was trying to help me. She brought out all kinds of paint and she brought me one paint—I think, it's really a child's thing—where the numbers are...” (referring to a “paint by numbers”).

### **Support of Staff**

Mary Ann mentioned that she does not have any family or friends to visit her. “(Facility) is my family. They're all really sweet to me and everything like that. They make me feel important.”

Marlene was asked if she was hesitant to ask for help or assistance. “Sometimes. I try to be as independent as I can, but I don't know how long I'll be able to function the way I am.”

Judy, who was a driver and stopped driving because of her visual impairment, relied on other means to take her to and from physician appointments. She also mentioned that she has a daughter who assists with transportation in the event her needs are unable to be met, as what happened during the height of the pandemic.

Well, as far as the driving, I had to find other ways to get to doctors. You know, they have this Project Independence. I don't know if you know about that, in the town of North Hempstead, that provides transportation to medical appointments. You pay only half the fare, and they get grants that pays the other fare and local taxis do the actual driving. During the pandemic, they did it without any charge at all. So, during the pandemic, I used them and then sometimes I get to go with the (facility) driver, but when I can't, I use them. I have a daughter who helps me. The (facility) used to have a driver to take people to medical appointments and once a week, twice a week, they would take us to

supermarkets and once a week they would go to other kinds of stores because they don't do that anymore, but I can get there, and my daughter helps me with that.

Alan was asked how the nursing staff helped him adapt and adjust to his environment.

No, some of us need help and I'm not at that stage where I need their help. If I occasionally have to ring for something, it's for something that's very minor or something, but I have not needed their assistance in getting around. Not that I would refuse it if I needed it, but I have not needed it.

Charlie stated his medications are placed in a daily medication box; however, he is unable to see and read the labels. He relies on assistance of staff to set up his medication for him, to assist with shopping, read his mail, and pay his bills.

You know what? Here, we have, they call them companions. One of them is a nurse. And then, he arrange everything. They order medication for me, so I—I give the list of my medication to M\*\*\*. And M\*\*\* arrange companions to arrange everything—medication and put in the box—is there for me. So, I don't say, "Where are my medications? Medicines." You know what? I could not even read the signs, so I guess it's, what do you call, uncomfortable because I want to go to the store here to buy that one, this one, so I have to ask for somebody to come. I didn't read my mail for a long time. And I think I pay off all my debt, everything already except the medications. So, when I saw that, I bring it later to M\*\*\*.

S Janice, who is visually impaired with a “deterioration,” relies on staff and her congregation director to assist her with her needs, as she does not want the other Sisters to know that she cannot see. She was asked if she has someone to help her. “Yeah, and if I want to call them, I have someone.” She was asked again if somebody would help her. She said, “Yeah.” She

receives a menu to fill out her preferences and stated that “Sister P\*\* does that” for she “can't read it.” She was asked about recreational programs and whether or not she could read the calendar to know what was happening for the day. “Sister P\*\* does it and I have to ask people. The only one I would ask would be P\*\* because she knows. She reads my mail. She checks my phone.”

Mary Ann said she does need help from staff at times to assist her with her ADLs. When it comes to getting up in the morning, she stated that she waits for the nurse to come in because she needs help.

Not with getting dressed or anything, I do that all myself, but I need them to take the diaper off because I got to wear a diaper at night and wash my body. And then they help me; they put my sock on and they put my pull-up on, and they help me with my bra. Then the rest of it, I do myself. I get up. I put my prosthesis on. I go to the bathroom in my underwear and then I get dressed.

Margie stated that she has had many falls since her admission into the LTC facility. She was asked what might have contributed to the falls.

I'm so used to being independent. I don't know how to ask for help. I feel like if someone is busy working, I don't want to bother them, so if I can get up and get in the wheelchair and do whatever...then I tried to do it myself, but I fell trying to get into the wheelchair. She confided she may need more assistance to keep herself safe.

Dorothy was asked if she needs help with any of her ADLs.

I take care of myself (alluding to her insistence on maintaining her independence). I can, yeah. Only I'm a very independent person. I could very well use an aide and I could very well afford an aide and I don't want an aide.

Dorothy 2, when asked about completing her ADLs, stated that she likes doing things for herself. “I wash my own hair. I do all of those things myself. I like doing things for myself.” However, she admitted, “I cannot give myself a shower though.” She was asked about dressing and picking out her own clothes. “I have all my clothes in here. I take care of it. Sometimes, I can't tell pink from blue or green because they're pastel and light colors.”

### **Vision Support Group**

In one LTC facility, a vision support group was established, with meetings held on a monthly basis. The meetings (which were curtailed due to the pandemic) have recently begun again. They are conducted by a retired social worker who had previously worked with the blind population. Each participant in this study from that facility are members. Participants in the group shared how the support group was of value to them.

Ronnie, a member of the vision support group, mentioned that the group has been very helpful to her.

In fact, the vision group, I work with one of the ladies in the vision group and we have a convenience store here, which has been closed since the pandemic. But we are the co-chairpersons. We do the recruitment to have residents for an hour and a half a week or a month. We have enough people that we...and that gives them an opportunity to work with somebody they don't know. And it helps them get to know new people.

She further stated that although the residents may not have as much involvement in the planning of the store, “we will be able to do the determination of what goes in there.” She mentioned that their input is respected and that “it's a family-like atmosphere in many respects. Nobody is having fights or anything like...they help each other as much (as possible).” She mentioned the benefit of belonging to the group.

Nobody looks at it as an impairment. You're not discriminated against. Even the people that can't hear well are totally included in every film. Even if there's a show or a trip going to the city to see a play, it's a complete mixture of the residency. Some people just enjoy being there and seeing the action, and those of us with glasses, we're glad we can see, and we're going to try to maximize what we do have until we can't. We're also learning how to handle ourselves in the eventuality that we won't be able.

She said that other people who have similar problems “certainly has made her much more aware of the things that can be helpful.” She cited an example: “Putting things in the refrigerator in certain place, so that if you do become totally blind or even limited, you know that on the third... You could ask someone if you need an aid to go get something that's on the third shelf, on the left.”

Audrey, another member of the vision support group, spoke about a vendor that has been helpful to the group in assisting them to manage with their vision impairments. She was very excited to speak about this vendor and what it had to offer.

Maxi Aids is a company out in, I think it's Hicksville, and they have things for every disability, including hearing, including sight, everything they have, it's amazing. They have a catalog and I get a lot of stuff from them. It's interesting. There are things out there that help. We also got the catalog for Maxi Aids for everybody in our group.

She mentioned that a woman by the name of Rosetta, a retired social worker who is now in a volunteer role, established the group in the residence: “A couple of residents and myself started a low-vision support group, oh, five years ago, four years ago. And it went for a while and then it kind of petered out, you know.” She expressed her compliments toward this woman.

For I don't know how many years, but she's a great gal. She's done wonders with our

group. Even talking about our feelings and how we handle things, and we share things that we come across that help. It's a support group. It's a support group, but you also have your own little community there too where you help each other; that's big.

She explained the benefits of the group. "I mean that is so good with the group because somebody will find something, some new gadget or something and share it; the idea of sharing something that you found out with somebody else is a good feeling." Audrey enthusiastically stated that Rosetta is amazing.

She really holds this group together and we meet once a month, on the second Tuesday of each month. We get into all kinds of discussions about our own situations and how we handled them and what we think would be helpful for others. And you know, it's just, it's just a good group.

Because the group is so beneficial to her, she will avoid scheduling any appointments on that day because it is important to her. She was asked what she had done to contribute to the group.

If I can help other people with things that I have that help me, I feel good about the situation. The group is an opportunity to get to know others who are experiencing the same problem. You get to know that there are people here who have difficulty seeing, and if you can get a couple of them together and sit down and chat and, you know, explain their situations and what they do and what bothers them, then get it going. And then people hear about it, and they sign up. We started with about 8 or 10, and I guess maybe we have 14 or so now. That's a great thing. And you know what? What I take away from that is you find that you're not alone. And that in itself is a lift.

Judy stated that "we're just very lucky" when speaking of the support group. She mentioned that due to the pandemic, the group only recently started again within the last year

because of the efforts of Rosetta who was a social worker involved with the White House for the Blind.

Once she retired, she was looking for something to do, I guess, and felt there was a need for this here and maybe she could help us. So, she formed this. She spoke to the administration, and they put up a notice. "Anybody interested?" We had about six people in the beginning and it's growing because as people hear about it, they're coming to this group. So, we met every two weeks for about...I don't know. Six or eight times. Now we meet once a month, and we share different gadgets that we have.

She further stated that Rosetta "talks to us, I guess, the way a social worker would talk to us, to make sure that we're not feeling isolated and that our self-worth is not being diminished by this." She stated that she has not felt any of that yet and does not know if she will, because she is new to it.

It's always nice to know that whatever's wrong with you is also wrong with other people. You don't suffer alone. We do pick up ideas from one another. Well, I showed them this particular magnifying glass because it has a light. This is for the knitting, which goes like this (demonstration), and it magnifies what's in your lap. I don't know how interested they were in it because I don't know if any of them were....It helped me. I'm afraid it doesn't help me enough, but it did. I'm a gadget collector. What else goes on at the meeting? Everybody shares. Yeah. That's about it.

Relationships with friends, family, staff, and groups were helpful to those experiencing a visual loss as the participants recognized they were not alone. The support provided while learning from each other assisted in reaching a positive transcendence into their new life. Many participants maintained as much independence as possible despite their visual impairment and

yet knew that there was a community of resources to assist them. A Vision Support group, although offered in only one facility, provided an outreach that offered support, guidance, a sense of inclusion, and self-worth with an opportunity for participants to share their own personal experiences.

### ***Theme #5: Transcendence Into the Future***

Those with a visual impairment often ponder how this will impact their future. Transcendence can be defined as an achievement of desirable outcomes, the ability to cope with cumulative changes that have resulted in physical and functional decline, and a sense of meaningful life (Flood, 2002). Self-transcendence can be defined as the expansion of self-boundaries in multi-dimensional ways: inwardly, outwardly, temporally (where the perceptions of one's past and future enhance the present), and transpersonally (Reed, 1991). One's attitude and how they look beyond the impairment can lead to a positive and realistic transcendence toward the future. Attitudes related to vision loss, such as acceptance, denial, indifference, and looking beyond impairment, are described in the words as told by several participants.

### **Attitudes Toward Vision Loss**

#### ***Acceptance***

Alan mentioned that he had changes in his vision due to cataracts. When asked to describe the change and how it has been for him, he responded, "Not so difficult. I've accepted it, but now that I'm going to have the surgery, hopefully within a short period of time..." He stated that his spouse's surgery was successful and that her vision was restored without the need of glasses. He is not sure how much vision he will have but admitted "Hopefully it'll be 100%; it might be 80, but I think anything else would be an improvement." He stated that while he is not able to do things as well as when he was younger, "you adapt; if somebody gives you a lemon,



you make lemonade.” He is aware that there is something beyond his cataracts that will not be known until he has the surgery. He was asked if he was fearful of what might be found. “No. What's there is there. Listen, I'm 92. I expect things not to be perfect. It may be nothing. It may be something.” He was asked if this might have an impact on his quality of life. “No, I don't think so. You have to be a certain way in your personality and realize at my age things can happen very rapidly.”

Audrey has accepted the fact that her visual impairment has held her back in doing things she once was able to do.

Well, you know. Yes, it's held me back me that because somethings that I could, I could see to do, I can't do. But you know, I've adjusted, I make the most of what the good Lord gave me. What I have now, you know, there's no point and getting all of upset over this. Yes. It's upsetting. There's no question. You know, you do the best with what you've got, but you know, you do the best you can. I do the best I can.

She was asked how she felt she was doing.

I think okay, as I say I have my moments of frustration where I can't do all the things I used to do. But that's part of life, everything isn't a bowl of cherries. But I'm doing okay; I'm doing okay. I'd like to be able to do more.

Charlie relies on his faith in accepting the loss of his vision. He attributes it to God's will. So, I think God wants me to close my eyes and to pray more, because I was so active when I work with religious education children, school kids children, wherever I go, and fire department, the police department, so everything. I ran around as the young guy but now, maybe God wants me to rest and close your eyes and say a prayer.

Dorothy was asked if she has been able to adapt and accept her vision loss. “Yes. I'm

learning to keep things in the same place and I'm trying to be more organized than I've been in the past. I'm learning to be more organized about putting things back.”

Well, all I could say is getting old, you have to have a lot of patience with yourself. That's it, patience. You have to learn to accept these limitations that come along with aging. If you can't do that, you're just a hunk of meat. You're in trouble. I am accepting it as it comes along. I'm not fighting it. And just accepting the limitations that come of course with aging. And it's not easy to do for anybody.

Dorothy<sup>2</sup> has accepted the fact that her vision will not improve. She is grateful for the facility in which she resides. “I honestly don't feel that there is anything that can be done for my eyesight. And I think that, what I have now (living in her current residence) is probably the best deal anybody could get.”

Larry is aware that his vision is not going to improve and that he is of advanced age. “The truth be told, at 90, you don't have far visions. I just read on the Internet that the limit to man's life...life, mankind's life, any particular man, is 150 years. Well, I'm not going to make another 60”.

Marlene is not letting her visual impairment regarding her cataracts interrupt with living her life.

I'm not letting it affect me because I don't want to think the worst. But again, my friends helped me through the work and the staff is wonderful. And I don't know what to say; I did the best I could. Like everybody else. What do they say? If you can't use it, you lose it. I have to deal with it. What can I do?

Ronnie experienced a bleed in her right eye, and she knows there is no treatment for it. She reflects upon her life, accepting what the future is and how she is grateful for the facility in

which she resides. “The fact they can't do anything about...I mean, look, I'm 83 years old. I did pretty well. You have to expect something. And being here has been helpful in the sense that everybody has something.”

S Regina is aware that her eyesight may not come back, and she has learned to accept it. She disclosed to the researcher that “There's no use in fighting. You have to live with it. You learn to live with it.” During a follow-up interview, she was asked if she still felt the same way. “Yes, there's nothing I can do about it. It's a fact.”

### ***Denial***

Judy has significant vision loss, and while she has made many changes in her lifestyle due to it, she appeared to be in denial. She asked the researcher about the study and stated, “I'm glad you're doing this. Not that I'm vision impaired myself. I know there are other people.”

Margie has been diagnosed with cataracts, yet stated they were too small to remove at this point. She admitted that she has had many falls since her arrival to the facility. She was asked if she attributed her eyes and visual impairment as a reason for her falls. “I don't. I think more my balance than the eyes” and stated there was no fall-prevention plan in effect for her.

Raymond wears glasses and is battling MS. He was asked about his experience of living in the facility with his eye-related problem. “With my eyes? Nothing.” During the interview, he was not wearing his glasses and yet was observed moving his head around, often trying to locate and focus on the researcher and the TV. When asked where his glasses were, he pointed to a dresser drawer in front of a wall. His glasses were retrieved and observed to be bifocals and in need of cleaning. “I don't wear them for anything, just to see distance and whatever they give me to read. If there's documents to sign, or something like that. So, I'm able to see what I'm signing.” He denied that his diagnosis of MS had any effect on his vision.

## *Indifference*

Raymond retired at the age of 45 due to the limitations he experienced from MS. “I was diagnosed (with MS) when I was ready for retirement; that's when I suffered the mobility. So that's why I retired before any problems occurred while I was working.” When asked how he felt about retiring at that age, he stated, “Well, I was hoping to retire like everybody else in the 60s.” He stated that retiring early had no effect on him:

It didn't affect me. I was able to spend whatever time I had with my wife, my two daughters who were still with me, and they were preparing themselves for college, so I was glad I was able to be there. Just the MS that forced me to retire.

He was asked how it felt to be alone (as he was in a private room), with altered vision and in a facility where visitation restrictions were in effect due to the pandemic.

Well, how else would it feel? You don't communicate with nobody. I look at the ceiling all of the time. I watch the news programs on the television; I keep track more or less. But then, what does dates have to do with anything? It's just another day. I don't find anything special about the days, except maybe birthdays or special occasions.

He was asked if he would be able to see a calendar of events placed on a wall. “No, probably not because I'm not interested in a calendar. I get the news, and I see what dates they are. From what I know, it's June—exactly what date, I don't know, and I don't care.” He was asked if there have been any changes in his eyes since he arrived at the facility and if they got weaker as time went by. “Not that I notice. They check them.” He was asked if there was a doctor that comes in to check on his eyes. “I guess so, from the nursing home” but could not recall when was the last time he was seen and denied receiving a new pair of glasses.

## Looking Beyond Impairment

Dorothy<sup>2</sup> is well informed and has accepted that her visual impairment is not going to improve. However, she is not one to sit idle. She was asked how she spends her time. “I take a walk in the halls, back and forth, all around here. I do a lot of exercise because, I don't wish to atrophy or whatever. You have to keep yourself moving and you have to keep yourself thinking.”

Judy stated how the use of her computer has helped her overcome barriers she faced. She stated that she stopped reading and canceled her subscription to *The New York Times*. She still subscribes to *Newsday*, as she likes to keep current with local news, especially since she has worked with the League of Women Voters. She shared with the researcher that she is a “crypto quote addict,” which is a particular daily puzzle in *Newsday*. She mentioned that at one time “it just began to be too much effort.” She stated that her kids had bought her a book with larger type, and she has resigned to the fact that it is what she is going to have to use now. “I can read it if I have...I have to work very hard at it. It isn't worth the struggle. I can get news other ways. I can get news from the computer, the phone, and the computer, and the TV.” While she is aware that her vision will not improve, she has one wish: “I wish I could see better.”

## Embracing The Future

Participants in this study revealed how they have embraced physical and functional changes and how they have prepared and adapted themselves for the inevitable. This can include a loss of vision or their own death. Participants also described meaning to their lives.

Alan resides in a facility where there are many residents who have dementia. He stated that was one of the main reasons why he chooses to stay in his room, especially when it comes to dining. “I see so much of that, and I'm not making fun of it; I want to put it off as long I'm able to.” He is scheduled to have cataract removal surgery in the near future. He is optimistic that his

vision will be restored like his spouse's was, but he is prepared if it is not. He mentioned that his doctor told him, "We don't know how much vision you'll have; hopefully it'll be 100%, it might be 80." Knowing this, he stated "But I think anything else would be an improvement."

Charlie was asked if there was anything he missed that he enjoyed doing in the past and can no longer do because of his vision.

I miss seeing the people or children. I work in a Parish. I miss all of those. But, at the same time as I told you before, maybe God has another plan for me, because oh, Charlie, you worked hard enough now. It's the time to rest. We have enough priests in each Parish now.

He mentioned that he was inducted into the Hall of Fame in a local parish because of the work he did in the parishes. Upon commenting about that experience and his life, he proudly stated, "So, you get the rewards. You get everything. So, now it's time to rest."

Dorothy has accepted the diagnosis of macular degeneration: "I have macular, it's accepted, because of my age." As she looks to the future she realized (as one who has tried to maintain as much independence as possible) that she may need to rely on the help of others. She provided an explanation.

I have to keep up with my finances and then there's where I use it (magnifying glass). I mean, I did my income taxes for last year and I used the magnifying glass just to make sure I wasn't making a mistake, but I told my lawyer; I said, you can do it next year for me.

Dorothy also mentioned that patience is required when getting old.

Well, all I could say is getting old you have to have a lot of patience with yourself. That's it, patience. You have to learn to accept these limitations that come along with aging. If

you can't do that, you're just a hunk of meat. You're in trouble.

Dorothy<sup>2</sup> recognizes that her vision is not going to improve. She was asked if she has experienced any changes since her admission into the facility. “Now and again, I can feel a change. But I'm 92, not 16. So, I don't expect it to reverse itself.” She shared a comment made by her retinologist when she received the news about her future and the progression of her impairment: “He said, don't come back, Dorothy. There isn't anything I can do for you. You cannot reverse retinology. Yeah. You can't reverse it.” The doctor informed her of her prognosis.

Yours is well on the way. There is nothing we've been able to do for you now. They don't replant your retina or anything like that. I would not be interested in any kind of a serious operation at that time. At this time in my life, I would not do it.

She discussed her day-to-day routine and plans for the future.

So, in my walking back and forth, I've made friends. I speak with them a couple of times a day as I pass their doors, but I'm not here to make friends. I'm here to prepare to die. Of course, this is my last residence. I expect to be buried from here and I'm at peace with that. That's fine.

Judy is prepared for the future and has accepted the fact that there is no treatment for her impairment. She stated her doctor realistically told her, “We have discussed this many times. We have no treatment. I know that there are researchers all over the world working on this, but they have not come up with anything yet.” Judy was asked how that news made her feel.

I just live, and I mostly have a good time here. I'm not sad. I mean I'm optimistic. I'm an optimist by nature, so I have to assume that things will get better. Once I hit 90, I kind of realized, “Well, what's my expectation of a person that's 90? They don't do a whole lot.” I don't have to do things for other people like I had to do when I was younger. The only

thing I have to do is take care of myself.

Larry shared his thoughts about the future, taking into consideration his visual impairment and other health conditions. He responded with a laugh.

I don't know. The truth be told, at 90, you don't have far visions. I just read on the Internet that the limit to man's life...life, mankind's life, any particular man, is 150 years. Well, I'm not going to make another 60.

Marlene has cataracts, which she does not allow to interfere with her independence in her daily activities. While hoping that her eventual surgery will improve her vision, she has adapted to her environment, thanks to having people around her: "I was able to adapt by myself as long as I have people around." She was asked by the researcher about any hesitancy in asking for help, knowing how independent she wants to be. In addition, she was questioned if anything holds her back from asking for help. She is realistic knowing what the future may entail. "Sometimes. I don't know. I try to be as independent as I can. But I don't know how long I'll be able to function the way I am."

Mary Ann has accepted living in a LTC facility and is aware of her future. She is steadfast on maintaining her independence and working through her impairments. She maintains a positive outlook.

In other words, you got to make up your mind that you're going to do what you want to do, regardless of what the impairment is, whether you lost your leg, you can't see, whatever it is. You're always able to do something, but you got to want to do it. That's the way I feel. I know I'm dying, but I keep telling myself I'm going to live to be 100 and I'm going to celebrate on my 100th birthday.

Knowing what her future holds despite her chronic conditions, she offered advice for those who



need to work with the population she is among.

You have to listen to the patient, look into the patient's eyes and try and see what they're trying to tell you. That's very important. If you don't have eye contact, or you don't really pay attention to them, it's not going to do you any good. That's what you're going to want to watch out for.

Raymond has MS and his mobility is greatly limited. While he denies that his vision impairment is related to the diagnosis, he knows what the future holds for him. "I've given up but haven't given up on life because I still have my brain. I'll still be able to communicate." The researcher confirmed his response by not giving up and thanked him for his time in speaking with her, for which he replied, "You're welcome. Time. That's all I have for the time being."

Ronnie is realistic about her future. "I mean, look, I'm 83 years old. I did pretty well. You have to expect something. Being here has been helpful in the sense that everybody has something." She expressed gratitude for her living residence and has always felt included and never discriminated against because of her impairment.

Some people just enjoy being there and seeing the action, and those of us with glasses we're glad we can see, and we're going to try to maximize what we do have until we can't. We're also learning how to handle ourselves in the eventuality that we won't be able to see.

She brought up the future, specifically end of life: "I think being here, too, also is helpful to them (her family) because it makes them realize that I'm completely at ease with the thought of not being around. I don't want to go, but it's part of life." She told her family, "You have to accept that everyone is going to die. And so don't grieve me because I've had a great life. I have really had a wonderful life."

S Janice is aware her vision will most likely not improve and stated that her eyeglasses did not make a difference in her ability to see. She was asked if a genie could grant her a wish what would she wish for. S Janice replied, “I wish I had better ones (eyes). So that I can read.”

S Regina is realistic in knowing that she will lose her vision.

Yeah. I think I'm going to lose that. I don't know why I just have the feeling. My eyes, the doctor predicted I might have five years and then I would go blind. Now that was two years ago. Three years ago. So, I can see...I think the eyesight is slowly beginning... She was asked if she was able to adapt and make things work for her despite the impairment.

It's going to happen. There's no use fighting it, learn to live with it. Frankly, I don't want to live forever. I don't want to live till I'm a hundred. I think when I'm getting a little old, I'm ready to go home. I'll be settled. I had a good life. I have a wonderful family. I have good friends. I have nothing to complain about.

Participants displayed several attitudes related to vision loss. Many expressed acceptance to it, with few expressing denial or indifference. Their attitude and looking beyond the impairment permitted them to embrace a positive and realistic transcendence into their future.

## **Chapter Summary**

The five emerging themes derived from the transcribed interviews of the 17 participants in this study illustrated the meaning of the lived experience of older adults with visual impairments and their adaptation and integration into social and recreational activities in the LTC setting. Those themes included (1) Life Interrupted, (2) The Impact of Vision Loss, (3) Adaptation to the New Normal, (4) Embracing Relationships, and (5) Transcendence into the Future. Table 3 provided a summary of the themes, sub-themes, and summative descriptions of the higher formulated meaning for each of the five themes.

The last chapter includes a linkage to a theoretical framework; a review of previous literature; a secondary review of literature after data analysis; and implications related to nursing practice, including nursing education and social policy reform. Recommendations for future research, personal bias, limitations of this study, and personal reflections are also discussed.

## **Chapter Five: Conclusions**

This study illuminated the experiences of 17 LTC participants with visual impairment and their integration into social and recreational activities in the LTC setting. Data from the interviews provided an opportunity to view the lived experience of these older adults through their own unique lens. The data analysis revealed five essential themes: (1) Life Interrupted, (2) The Impact of Visual Impairment, (3) Adaptation to the New Normal, (4) Embracing Relationships, and (5) Transcendence into the Future. Enlightenment regarding their experiences led to the development of ways in which healthcare providers, including nursing professionals, can support and guide individuals with a visual impairment and their integration into social and recreational activities in this setting.

### **Links to Theoretical Framework**

Nurses have the responsibility to provide care that is patient centered and patient driven. Nurses utilize the nursing process as they conduct assessments of their patients, formulate nursing diagnoses, sets, and individualize the patient's plan of care and goals, implement interventions, and evaluate the care that is provided. Nurses follow a systematic approach that is supported by evidence-based practice. Throughout their practice, nurses utilize theories to support and guide them in the care they provide to patients. Theories help to form a foundation on which to base practice and guide interventions that are purposeful and helpful. The Roy Adaptation Model is one such theory that was useful to the researcher in understanding how the participants adapted to changes.

According to Roy (2009), "human adaptative systems are viewed as functioning with interdependent parts acting in unity for some purpose" (p. 31). A central concept in the Roy Adaptation Model was adaptation of the person to stimuli that are present internally and

externally and to the response made to the stimuli, which can be adaptive or ineffective. In reviewing the Roy Adaptation Model, it was evident that the participants adapted in each of the four adaptive modes (physiologic functioning, self-concept, role function, and interdependence), contributing to health, quality of life, and death with dignity (Roy, 2009).

According to the Roy Adaptation Model, three stimuli were identified that ultimately influenced the four adaptive modes. The first was the focal stimuli, the one which was immediately present and verbalized as a concern such as one's vision impairment. Visual impairments of the 17 participants revealed 4 with cataracts, 2 with glaucoma, 6 with ARMD, 1 with AION, 1 with "lazy eye," 1 with a "deterioration," and 2 "unknown." The second was the contextual stimuli, which contributed to the focal or immediate stimuli and affected the integration into social and recreational programs. While many emotions were shared by the participants regarding their impairment, they did not allow these to interfere with their participation in social and recreational activities as they made adaptations to assist them. The third was the residual stimuli that included environmental factors within/without the human system that positively affected their current situation. Many participants described how they relied on their indoor and outdoor environment to help them adapt. Some relied on physical landmarks, lighting, and color-coded buttons, while others relied on their heightened senses.

The adaptive mode of physiologic functioning revealed that the participants wanted to maintain as much independence as possible despite their vision impairment. They recognized their limitations and successfully sought out ways to overcome them. Some took pride in their independence. Often, they relied on the support of friends, family, and staff to assist with their ADLs and IADLs to ensure the best possible life for themselves.

The adaptive mode of self-concept, according to Roy (2009), "is central to the person and

important to the adaptation of the person as well as for the integrity of the other adaptive modes” (p. 337). Body image and how one perceives the self are an important part of the self-concept mode. If adaptation problems exist in the self-concept mode, it may impede one’s ability to heal, to engage in social and recreational activities, and to do whatever is necessary to maintain and promote health.

The appraisal of one’s own physical being includes the components of body image (Roy, 2009, p. 323). Body image can be a major factor in the life of someone who is visually impaired. Not being able to skillfully apply makeup, style hair, and to select an outfit from a wardrobe by deciphering colors and patterns can be overwhelming, especially if that was an important part of one’s life. This loss in ability can lead to powerlessness, a loss of independence, a loss of self-affirmation and isolation as the person cannot see as well or participate in self-care or pleasurable activities like once before. This was not the case with several of the participants. Audrey stated that her daughter buys all her clothing that is color coded and arranged on hangers for her. Her spouse, who resides with her, helps her pick them out as she can dress herself. Grooming appeared to be important to her, as she stated she has her hair done on Tuesdays and her nails done on Saturdays. Dorothy<sup>2</sup> washes her own hair but admitted she cannot give herself a shower. She is able to pick out her own clothes and dress herself but is concerned about matching her clothes, as she is unable to tell pink from blue or green because they are pastel and light colors. Margie is conscious of grooming as her hair was neat, her lips were decorated with pink lipstick, and she wore black fashionable rimmed eyeglasses (of which she had many pairs). She had a dresser drawer where a large magnifying tabletop mirror was used when brushing her hair and another smaller one used when applying makeup. She also has plastic multi-drawer cabinets containing clothing that was neatly folded and arranged for easy identification. Ronnie

was neatly dressed, well groomed, and fashionable, wearing a lilac-colored pullover polo shirt, black elastic-waist pants, and black “velvet like” open-back shoes with non-skid soles. She stated she did not comb her hair prior to the interview (which she was embarrassed about), yet her hair was in place.

The adaptive mode of role function specifically focuses on the roles individuals occupy in society: “The basic need of the role function mode has been identified as social integrity involving the need to know who is in relation to others so that one can act” (Roy, 2009, p. 358). Participants in this study held the roles of spouse, parent, and grandparent, holding administrative, professional, and volunteer positions in society. Visual impairment described by some of the participants required support systems to facilitate some of their previous roles, which permitted them to engage in enjoyable activities. Audrey remained instrumental in planning group trips. Ronnie kept busy as a co-chairperson in the convenience store within her residence, recruiting other residents to volunteer, which gave them an opportunity to work with and meet new people. Judy once actively volunteered for her spouse in track and field meets and as a member of the League of Women Voters. That active volunteering role led to her opening her residence to others, where her weekly mahjong game was played at her dining room table.

The last adaptive role is *interdependence*, which is defined as “the close relationships of people aimed at satisfying needs for affection and for the development of relationships” (Roy, 2009, p. 385). It is through this that one continues to grow as an individual and a contributing member of society. In this mode, families try to remain intact while new relationships, including support groups, proliferate (Roy, 2009). Many of the participants in this study discussed they wanted to remain as independent as possible and still perform as a member of society with their family, peers, and staff. They also realized they needed to rely on support systems to help them

achieve that. Five of the participants in the study were active in a facility-based Visual Support Group where many benefited from the conversations on how they managed and coped with their visual loss, knowing they were not alone. Ronnie expressed being grateful for her Vision Support Group, as it allowed ideas, concerns, and accessories to be shared with others and made her much more aware of things that can be helpful. She complimented the group, noting that they are learning how to handle themselves in the eventuality that they will not be able to in the future. Audrey stated that because the group is so beneficial to her, she avoids scheduling any appointments on that day. If she could help other people with things that have helped her, then she feels good about the situation. She mentioned that the group provides an opportunity to get to know others who are experiencing the same problem. Judy found the group helpful as participants shared the different gadgets that they used. She stated one of the goals of the group was to make sure nobody was isolated and that their self-worth was not being diminished.

Moving to a new environment can create some challenges, as it may not look like what one was accustomed to. According to Roy (2009), *environment* is defined as “all the conditions, circumstances and influences surrounding and affecting the development and behavior of individuals and groups” (p. 16). The new environment should be made to “act like” or “feel like” the home environment. A person with a visual impairment should be able to navigate the surroundings safely, as many have described being fearful of falling. The individual may need to rely on other senses to navigate safely, such as the sense of touch. This can be accomplished by “feeling” for landmarks such as textures on walls, furniture, and flooring. Participants in this study identified landmarks and objects that assisted them in their navigation within and outside of their room and apartment. Audrey relied on a porcelain frog on a shelf outside of her door to locate her apartment. Judy relied on a piece of wall art to help her locate her apartment. Hearing



certain sounds may help in navigating around the home. The leaking of a faucet may be associated with a kitchen or a bathroom. Ronnie recognized a leak in her bathroom because of hearing and finding water on her bathroom floor. Relying on the sense of smell and fragrances assisted in knowing where the kitchen or bathroom might be or if something is spoiling in the refrigerator, as was mentioned by Audrey. The sense of smell can identify the apartments of a neighbor who might be cooking a meal, as was mentioned by Judy. She could often decipher apartments based on where the smell was coming from. Modifying the environment (i.e., using landmarks within and outside of rooms, keeping adaptive items close by, strategically arranging furniture, providing appropriate lighting) made a significant difference in coping and adapting to a new one, especially if visually impaired.

Visual loss can be a struggle, but to be truly adapted and liberated, “one must never see their ordeal as a ‘fait accompli’ but rather a limited situation that can be transformed” (Freire, 2017). Measures to assist in adaptation can lead to liberation. The participants in this study described how they were able to adapt and remain independent.

Linking nursing theory to practice such as the Roy Adaptation Model allows the professional nurse to use knowledge acquired from the arts, sciences, and previously conducted research to plan appropriate, meaningful, and individualized patient-centered care of seeing the patient as a whole rather than the sum of its parts. Identifying stimuli, addressing the problem at hand, and intervening appropriately can lead to a successful adaptation. Educating staff on what is important to each patient and carrying out interventions that are meaningful to the patient can lead to positive outcomes and a meaningful quality of life. It is through our practice that our profession can influence change to provide better care to our most vulnerable populations—in this case, the older adult with a visual impairment—as advances in technology has them living

longer.

### **Integration of Findings with Previous Literature Review**

The integration of findings with the previous literature review for this study included 17 studies that focused on visual impairment of the older adult and their integration into social and recreational activities in the LTC setting. Several factors addressed in the literature review included vision impairment and its relationship to emotional impact, quality of life, depression, driving, socialization, isolation, safety, and falls. The themes that emerged from this study shared some common threads with selected studies in the literature review and also revealed findings not found in the initial review. The commonalities and dissimilarities are described.

A review of the literature conducted by McGrath and Laliberte Rudman (2013) identified factors that influenced the occupational engagement of older adults with visual loss. Emotional and environmental components addressing the importance of supportive spaces and difficulty in social situations were identified. The emotional component of fear was expressed by many older adults with vision loss, as they were afraid of falling, hurting themselves, or being uncertain of their physical surroundings.

In this study, the same held true for many of the participants who had falls—some more than others because of their impairment. Audrey, who had not sustained a fall, disclosed that she was afraid to ambulate off the grounds for fear that she would “lose her way.” As a result, she ambulated primarily indoors where she knew the environment and had a better layout of the building. Although fear was expressed by the participants, all wanted to remain as independent as possible. Frustration and sadness was expressed by Audrey and Judy, for they were unable to find enjoyment in participating in previous activities that gave them pleasure (i.e., reading, sewing, knitting). Despite this, the participants were able to adapt by using assistive devices (i.e.

magnifiers) to maintain their independence and involvement in activities. Judy and Audrey expressed sadness yet acceptance as they faced the inevitable realization that there is no cure for their impairment. The participants in this study found that their social networks helped them in accepting their current situation and preparation for the future. Alan expressed a feeling of hope, as he was scheduled to have surgery for his impairment and saw positive outcomes in others who had the same surgery performed. The participants often relied on support from peers, staff, family, and in a support group that was held in one facility.

In the same scoping review of the literature, low-vision rehabilitation services often provided to the visually impaired were not available to the participants in any of the facilities where this study was conducted. However, assistive devices such as magnifiers, personal landmarks, audiobooks, and Zoom access with computers were utilized. Many of the participants who utilized these devices did not find their independence curtailed.

In the study conducted by Boerner and Wang (2010), participants found it difficult to engage in social situations due to their inability to respond to visual cues. This finding was supported in this study. Judy stated that many of the activities offered in her residence were intended for those who can see, while Larry stated “not much” is done for people with vision impairment. Learning to cope in the world of seeing was a benefit of attending the Visual Support Group, as the participants discovered ways to accommodate their visual needs.

Copolillo and Teitelman (2005) identified that feelings of stigma and embarrassment were expressed by participants in their study. In this study, several participants identified with the same stigma. Two participants expressed embarrassment when not being able to see and identify peers in a group setting. Judy and Dorothy described how they were not able to identify her peers in a dining room and required staff assistance to locate them. Larry expressed

embarrassment when having his hair cut and not recognizing the person sitting next to him of whom he knew for a long time. Charlie stated that he prefers to dine in his own room to avoid the embarrassment of making a “mishap” during meals. S Janice felt a sense of embarrassment in not wanting to disclose to her her peers that she “was no longer able to read.” Many participants in the study did not find they were discriminated against or considered disabled because they had an impairment. However, Alan would not disclose to the rehabilitative therapy department that he had an impairment, as he did not want to be viewed as “disabled.” He jokingly stated, “They may give me a cane.” In addition, facial recognition—often relied on by many—was impacted by the use of face masks as restrictions were placed within the facility due to the current COVID-19 pandemic.

In the study conducted by McGrath and Corrado (2018), the use of LVADs were found to help support occupational engagement and yet were underused in the older adult population with visual impairment. The study examined environmental factors influencing the adoption of technology. The participants were asked what they liked and disliked about a particular technological device (i.e., tablet, cell phone, audio players). The researchers concluded that those with low-vision impairment relied more on the use of devices than their sighted peers.

In this study, many of the participants had cell phones and accessed them for shopping, gaming, and general communication. Tablets, computers, and smart TVs allowed the participants to not only shop but also to access Zoom, which was perceived as a positive service as it kept many participants engaged in activities while they were restricted to their rooms and apartments. This was evident especially in the assisted living facility. It was observed by the researcher that study participants in the LTC facility (i.e., nursing home) did not have access to the same Zoom activities, limiting their engagement and participation in social and recreational programs. While

many had access to LVADs such as magnifiers, they were purchased by the participant rather than being provided for by the facility. Many expressed that although these were helpful in engaging them in pleasurable activities, some found them “clumsy” and would not use them unless necessary. For example, Ronnie had no desire to learn how to use a smartphone other than making phone calls, stating that she does not “have the patience” for it. The cost of LVADs did factor into their use for some participants. Audrey had gadgets and equipment that was expensive and purchased out of her own pocket. Ronnie, knowing of this participant’s equipment, stated it was too expensive for her to consider at the current time and she would continue to use her inexpensive magnifier.

Although socioeconomic status and insurance coverage were not asked in the collection of demographic data for this study, it is worth noting that those participants residing in the LTC facility had limited resources to purchase equipment due to insurance and the provision of a monthly stipend. Those living in an assisted living facility were more financially endowed, as their living space and luxuries are paid out of pocket. Audiobooks were used by a few, with many participants not knowing they were available. One LTC facility provided audiobooks while the others did not.

In the study by Kempen et al. (2012), there was a linkage between vision impairment and low quality of life (i.e., limitations in ADLs, physical dysfunction, and depression). Results of their study concluded that older adults with vision loss reported poor levels of ADL functioning, symptoms of depression, and feelings of anxiety compared to those with other chronic conditions. The study also concluded that older persons with vision loss reported higher levels of social support. In this study, participants made every effort to rely on the support of others while maintaining quality of life. None of the participants revealed a diagnosis of clinical depression,

and many did not let their vision loss hamper their ability to engage in social and recreational activities.

A qualitative study conducted by Tsai et al. (2003) identified factors associated with depression and visual impairment among those > 65 years of age. The study concluded that there was a significant association between impaired vision and depressive symptoms that caused difficulties in self-care impeding on activities previously taken for granted. The researchers also concluded that visual impairment was associated with feelings of worthlessness and hopelessness. In this study, although there was no association of depression, one participant, S Janice, felt like “two cents” when her driving privileges were taken away from her.

Brunes and Heir (2020) studied the prevalence of depression in adults and its association with vision impairment and life satisfaction. Their study revealed that adults who acquired visual impairment later in life combined with other impairments led to increased rates of depression. They noted that visual impairment might result in traumatic changes to one’s daily life activities affecting driving and traveling outside of the home. In addition, they discovered that a lack of social interaction due to vision loss greatly affected one’s life, making it less pleasurable and meaningful, leading to social isolation.

This study revealed that driving, and a loss of freedom associated with it, was shared by some participants and that social isolation shared by many participants was due more to the restrictions placed on the facilities as a result of the COVID-19 pandemic. Renaud and Bedard (2013) concluded that depression in older adults (not only with visual impairment) is often not recognized or treated and that older adults do not always discuss that they have depressive symptoms. In this study, none of the participants displayed symptoms of depression and did not verbalize being treated for depression.

A phenomenological study conducted by Berger (2011) explored the lived experience of older adults with acquired or late-life vision loss. Three themes emerged regarding the “meaning of leisure”: shift in relationship due to vision loss, influence of vision loss on time use, and achieving meaning through leisure. In this study, there was a shift in relationships related to the struggles with vision loss such as maintaining and expanding social relationships, staying current and socially connected, and limited reciprocal relationships. Influence on vision loss revealed that many had given up on their favorite activities because participating in them took more effort and became less fun (i.e., traveling, watching TV, listening to the radio) and access to transportation was difficult. For them, achieving meaning revealed that it was not necessarily the activity that mattered but more so the meaning around the activity, as it allowed for socialization and a connectedness to others. The study concluded that older adults with vision loss participate in fewer social, physical, and mental activities and find that their cognitive ability diminishes as well. The study also showed that engaging in activities was important to one’s health and overall well-being but that engaging in activities was not only a challenge and less enjoyable but also took up a lot of time and energy (Berger, 2011).

This study revealed that although many gave up activities such as driving and had to rely on others for transportation, few verbalized that it was a burden to them. Judy and Ronnie gave up knitting and sewing, for they were unable to thread the needle or knit according to a pattern, forcing them to restart again. However, through the use of gadgets and devices, the participants kept engaged in other activities they enjoyed (i.e., reading, cooking, baking, and gaming). In fact, Ronnie learned a new skill, becoming an active follower of the stock market. Although pandemic restrictions curtailed many social activities, many participants stayed socially connected via Zoom, computer, TV, and the telephone.

In the study conducted by Coyle et al. (2017), an association existed between vision impairment and the ability of older adults functioning within their own communities. Social isolation was a risk factor identified that could lead to negative healthcare outcomes with an increase in institutionalization, falls, and mortality. As per the researchers, visual impairment limited the participation in activities such as watching TV, driving, and dialing a phone. In addition, visual loss contributed to isolation. The study revealed that individuals with self-reported visual loss were more at risk for social isolation due to having an inadequate social support. Those who maintained their ability to be successful in social settings were likely correlated with positive perceptions of visual loss that did not inhibit them from engaging socially. In the study conducted by Vucinic et al. (2020), adults with visual loss rarely got involved in activities outside of the home and community because they usually relied on the involvement of family and friends for transportation. The study also revealed that older adults with visual loss preferred to take part in informal versus formal activities.

In this study, the researcher identified discrepancies from the literature. The participants made every effort to engage in social events both within and outside their residence. For those who required transportation to and from appointments, one facility utilized a van service while others relied on family and friends. Where events were televised via Zoom, many of the participants who had access took advantage of it. Prior to the restrictions placed on facilities due to the pandemic, the participants engaged in activities within the facility, whether it was parties, gaming, and happy hour, or in events outside the facility such as excursions to see plays, go shopping, or dine in restaurants. Social isolation was evident in a study conducted by van Dyck et al. (2020) primarily due to the COVID-19 restrictions enforced by the facilities. The participants were not permitted to leave their rooms or residences. Findings in the study revealed



that social isolation significantly increased and activities offered were of limited benefit. Being secluded in their rooms was a challenge, and this made it difficult to participate in communal gatherings such as dining and recreational programs, as contact with staff and visitors was lessened or nonexistent due to governmental restrictions. In this study, many of the participants felt alone and isolated by having to stay secluded in their rooms. They were not able to socialize in person with others and were not able to engage in facility-based programs and outings, but they made the best of it. The telephone and Zoom kept people connected and engaged. At the time of this study, the restrictions were somewhat lifted due to resident vaccinations and an increase in the understanding of COVID-19 transmission.

According to Lach et al. (2018) and Kingston (2018), adults living in the community have a higher rate of falls than those of nursing home residents, but those with visual impairment fall as much as two to three times more than those who do not. Falls are underreported, making that average even higher. Fear of falling can cause disability in nursing home residents and has often been linked to visual loss, hearing loss, or both. The researchers also concluded that residents with fear had lower levels of activity than those who did not. The researchers also noted that fall assessment and fall-related programs are often initiated at the time of admission, usually before a fall occurs. A multi-faceted risk assessment is essential, as many potential falls might be related to a previous history of a fall. They observed that visual assessment was an integral part of the assessment, as a change in visual acuity causes tripping, misstepping, and walking into objects because aging reduces depth perception.

This study revealed that many had a fear of falling and had fallen on more than one occasion. For example, Margie was unaware that she was assessed prior to or after a fall and was not included as a participant in any interdisciplinary care meeting. Larry stated that he had

numerous falls in his own residence and utilized a walker while outside of his residence but knew the layout within his residence where he would not use the walker. He showed his bathroom and the provisions he had made within his shower to prevent falls occurring there. Audrey expressed a fear of falling when navigating outside of her residence because her vision was poor. She did not want to fall on uneven surfaces, so she would not venture outside unless accompanied by a family member. Several participants stated they used walkers within their rooms as they felt they or the staff would get into trouble if a fall occurred.

In the study conducted by Ortiz-Peregrina et al. (2020), older drivers were found to have diminished visual acuity and poorer contrast sensitivity influenced by glare or halo as compared to the younger population. Due to these changes, the older population experienced a decline in status in performing certain tasks, including driving, which increases the risk for accidents. Often, this caused older drivers to self-regulate their driving or to stop driving altogether. The researchers concluded that older drivers have a greater incidence of lane excursions: more difficulty in changing lanes and less control over the vehicle's position in unexpected events or divided-attention tasks. These changes often result in older drivers being slower and less accurate when detecting stimuli on the road, making for a poorer overall driving performance.

In the study conducted by Keeffe et al. (2002), older drivers were significantly more likely to restrict their driving at night, during rush hour, or in the city, and yet there was no significant difference in restricting driving due to bad weather or driving distance. The researchers concluded that an inability to see and detect objects had obvious consequences for driving because visual acuity became unsafe and ultimately resulted in an increased risk of accidents.

In the study conducted by Owsley et al. (2009), drivers with ARMD were rated less safe;

had a higher rate of critical errors; and exhibited more observation, lane keeping, and gap selection errors, with more errors at traffic light-controlled intercessions. The researchers determined that drivers with early and intermediate ARMD can exhibit impairments in their driving performance, particularly with more complex driving situations.

In this study, many of the participants who drove and stopped driving had diagnoses such as glaucoma, ARMD, AION, cataracts, and a deterioration. They gave up driving for a variety of reasons. Some were self-reported and others were not. Dorothy<sup>2</sup> gave up driving due to an inability to clearly see objects in her lane. As a result of that, she avoided an accident by swerving her car off the road. Two had their driving privileges taken away: S Janice, for failing to report an accident, while Mary Ann was unable to read the eye chart upon renewal of her license. Judy willingly gave up driving. She realized it was “just not safe to be driving anymore as she saw herself driving too slowly on the road.” She realized that she could not judge distance, not knowing how far away she was from the curb. This revelation made her realize that she should not be behind the wheel of a car. Audrey sailed a boat, and as a result of her poor vision, she could no longer sail and had to give it up. Larry relied on his wife to drive because he felt it was not safe. He stated it was related to “insecurity with my eyesight.” Charlie stated he could no longer read the signs. S Regina feared she would have an accident and might be questioned why a woman of her age was behind the wheel. As a result of this, some felt they lost their freedom.

### **Additional Literature Review**

This study adds to the existing body of knowledge regarding the lived experience of older adults with visual impairments and their integration into social and recreational activities in the LTC setting. There were several findings in this research that were not discovered in the initial review of the literature such as the need for lighting, driving, and support groups. Therefore, an

additional literature search was conducted after data collection to seek information about the data analysis.

### **Visual Impairment and Lighting**

Vision deteriorates with age, which leads to an increased need for lights. Older people with age-related vision loss often express the need for more lighting. By the age of 60, the eye needs 3 to 10 times as much light to see as clearly as a 20-year-old, and this continues to accelerate with advancing age (Butler et al., 2019). Approximately 2.4 million Americans have low vision, and the prevalence is expected to rise over the next 20 years (Perlmutter et al., 2013). Older adults with age-related vision loss are often unaware of how lighting levels can affect their vision and their ability to participate in functional ADLs. Higher levels of light have been noted to improve ADLs and quality of life (Perlmutter et al., 2013). For those with ARMD, difficulties with glare and adaptation to different lighting levels exist where increased lighting may be necessary (Butler et al., 2019; Perlmutter et al., 2013). Lower lighting may be required for those with cataracts because difficulty with glare such as sunlight, headlights, and even some lamps may cause poor vision, especially at night (Perlmutter et al., 2013). Increasing the amount of light has a significant positive effect on sentence-reading acuity, reading rate, and print size, especially in those with ARMD. As a result of this, lighting levels within the homes of adults with age-related vision loss are generally below recommended levels. In a study referenced by Butler et al. (2019), vision measured in the home versus vision measured in a clinic revealed that home lighting fell below recommended levels for 85% of the participants included in that study. Lighting is considered to be one of the most efficient ways to improve performance in people with visual loss, prevent falls, and improve daily function that leads to an overall better quality of life.

Changes in technology underpinning lighting is one reason that older people find it difficult to make changes (Butler et al., 2019). Lighting types have increased, as there are a range of differences along the parameters of color, light intensity, and sustainability. Due to the abundance in choices, older adults find it difficult to make decisions. Lighting stores may or may not provide information about changes in recommended lighting levels with age or with the positioning of lamps to increase the light available and to avoid glare. Optometrists may suggest the need for additional lighting. Home assessments performed by members of the health care team to assure overall safety (including occupational therapists and nurses) should consider lighting as a factor in the assessment. Architects, electricians, and interior designers can be called upon for their expertise, but this service is costly and not always available. Because of the changes in technology, older adults must realize that not only has the technology changed but the terms have changed as well. *Watts* were previously associated with levels of brightness, but nowadays, brightness is described using the term *lumens*, while the color of the light is expressed with the term *kelvins* rather than *warm* or *cool*. In this study, the researcher found that the participants' rooms all had ambient window light. Varying room lights were turned on and off. Some of the participants voiced the need for increased or decreased lighting but did not purchase light sources because their institution did this for them.

A qualitative interpretive study was conducted by Butler et al. (2019) with 18 volunteers selected through a purposive sample using a variety of different community groups. Ages of the participants ranged from 60 to 96 years. Interviews were conducted via telephone and were audio-recorded, and focus groups were formed pre- and post-intervention. The study aimed to establish how providing and sharing information about lighting can be used to design and form educational workshops and lighting prescriptions for older adults with age-related vision loss. A

home environment lighting assessment was conducted where lighting needs were assessed. Items listed on this assessment included the following: pre-intervention, which included a description of the lighting environment; lighting interventions, a light meter assessment; and a lighting modification satisfactory survey. Based on the assessment data, the research team developed lighting prescriptions for each participant. Although the lighting prescription was personalized for each participant, most of the recommendations were simple. The prescriptions included the use of brighter bulbs, LED (light-emitting diode) ceiling buttons (which were favorable to those studied), task-adjustable lamps for both table and floor, and strip lighting. Light-colored bulbs favored by the participants were variable, but some participants were unable to tolerate bright lights. Some suggestions were made by the participants to address glare. Lighting was provided from multiple sources contrasting between light and dark (i.e., the lighting was positioned over an armchair or table to accommodate reading and sewing), and bright lighting was recommended in the kitchen, particularly for cooking and washing dishes. Glare was reduced by installing darker curtains and ensuring that lamp shades covered the lights. Solutions for glare included sunglasses, curtains, and lamp shades, including the use of wide-brimmed hats. Solutions were considered simple and inexpensive. The project concluded by demonstrating that a cost-effective way of providing education on lighting was helpful to older adults with age-related vision loss. The researchers concluded that a home assessment in conjunction with a personalized lighting prescription, an educational workshop, and a cooperative lighting store can be instrumental in providing appropriate lighting for older adults, especially when there are no low-vision services available.

In this study, lighting was important to many of the participants. Audrey informed the researcher about LED lights that were going to be installed in several apartments, including hers.

She mentioned that she had one or two in the apartment already and had one of them in the interior closet. She said she could use one in the kitchen as well as in her two hallways.

Currently, she relies on floor lamps and lamps on top of things that are not LEDs: “

They’re regular, incandescent lamps.” She stated that lighting made a difference “but nothing like it does now.” Charlie stated that glare hurts his eyes and was told to wear sunglasses all the time. The chair where he sits in and spends most of his time is up against a wide unobstructed window with a floor lamp placed behind his chair. Dorothy shared with the researcher that LED lighting was installed in her apartment. She said since the installation of the lighting, “she’s managing better.” She also stated the lighting “absolutely made a difference.” Judy mentioned that the lights in her apartment were changed. She stated that two LED lights were installed in her kitchen and is much better lit now than it used to be. She said the LED lighting helped her tremendously since it was installed. She mentioned that she changed all the lights and fixtures to LED lighting and now has a light where the washer and dryer is so she can see the dials. She admitted that it helps to have an LED light. Kim acknowledged that he resides in a room that has a nice bright environment. When asked if the lighting in his room was good for him, Kim replied, “Yeah, yeah. Very good”. He was asked if the lighting helped him see better and he responded by saying, “Yeah.” Margie resides in a room where there is a light over her bed, with two windows allowing natural sunlight to enter. She was asked by the researcher if the lighting in the room was adequate for her. She replied, “I like bright—not glaring, but brighter—lights because I could see better.” Ronnie was asked if she noted a difference, to which she replied, “Absolutely, especially in the kitchen and the bathrooms.” She further added, “They put in a totally new fixture in the ceiling with the lights that's probably three times bigger than what was there originally. And they put all new lighting underneath the cabinets that are twice as visually

improved compared to what was there.” S Mary commented about all the lights that she had in her room, including sunlight from her window. When asked about having enough light, she replied, “I think I have enough light, yeah.” Lighting made a difference to her. S Regina (diagnosed with macular degeneration) was observed in her room with the window blinds open. She also had a light over her bed, a light over the sink, and a light on the wall to the left side of her bed. Lighting was important to her because of her visual impairment: “Oh, I definitely need more light, yes.”

### **Residential Training for the Visually Impaired and Caregivers**

Individuals experiencing combined loss of vision and hearing have unique needs. Services such as learning how to cope with social and emotional issues, resource sharing, independent living, and basic communication skills are sorely needed as older adults  $\geq 55$  years of age continue to rise (Berry et al., 2008). One such program is described below.

The Helen Keller National Center for Blind and Deaf Youths and Adults, located in Sands Point, New York, developed a two-week residential training program called the Confident Living Program, which centered around a support group model to include those unique needs faced by this population. The emphasis on this program was and continues to be on providing an environment where older adults with hearing and vision loss can attach to a new community using tools learned in the program and return to their home community with renewed skills and confidence (Berry et al., 2008). The Confident Living Program offered a unique opportunity for seniors to connect with their peers who are also dealing with the same issues, with a goal of achieving independence (whatever that means for the individual). The program introduced participants to problem-solving strategies and skills necessary to cope with the emotional and logistical challenges of living with dual-sensory loss. The program gave participants an



opportunity to share their own story to establish effective communication, advocate for themselves, be a part of a group with commonality, and help problem-solve. Components of the group consisted of leisure and recreational activities that helped them acquire confidence in re-attaching to the community, minimizing loneliness, isolation, and a lack of confidence.

Furthermore, the program allowed participants an opportunity to meet with an audiologist, a low-vision specialist, and an optometrist to help them have a greater understanding of various eye-related disorders and the functional implications of their vision loss. The participants also received a low-vision assessment and were introduced to a variety of visual aids and devices to assist them in using their remaining residual vision. In addition to those affected older adults, family members, caregivers, and service providers were also introduced to ideas and strategies to help their loved one cope with life changes and how to face any new challenges (Berry et al., 2008).

As a result of being a part of this group, participants reported that the program provided them with positive experiences that gave them a renewed feeling of confidence and self-worth. The experiences, combined with new skills and techniques, helped each of them become empowered to make choices that lead them to retaining their independence while maintaining an improved quality of life (Berry et al., 2008). Training programs such as this can be beneficial to those living in residential care and community settings, if not otherwise in place, but the cost of the program would need to be considered. Establishing training programs for this population can introduce them to resources available, ultimately empowering them to integrate into social and recreational activities while maintaining their independence. With appropriate education and guidance, nurses and nurse practitioners can be influential in coordinating programs such as these in their own workplace or within their own community.

## **Vision Impairment and Support Groups**

A study by Larizza et al. (2011) was conducted to evaluate caregivers' experiences and outcomes, following attendance at a patient-centered group and based on a self-management program called "Living with Low Vision." The authors identified that caregivers—whether they be family, friends, formal or informal—provide critical support to those living with low vision. They added that caring for a person with low vision can be stressful, burdensome, and can negatively impact the caregiver's own well-being and quality of care. It was noted that one third of all family caregivers of older adults with low vision are at risk for clinical depression.

A lack of knowledge on low vision and poor problem-solving skills were identified in caregivers of those with low vision. It was common for those with vision loss to report feelings of overprotection by family members, which may be linked to the lack of caregiver knowledge or an underestimation of the individual's ability to manage his or her own vision loss. In addition, Larizza et al. (2011) identified in another study that there was an association of poor problem-solving skills and depressive symptoms in the caregiver. Thus, it was necessary to provide caregivers with information and skills to manage the demands of low vision for both caregivers and patients.

The researchers identified that there were very few studies that investigated ways to optimize the skills and understanding of caregivers of people with low vision. Studies that included group-based self-management programs providing health and skills to help manage the practical and emotional demands of a chronic health condition were effective in optimizing patient functioning and well-being. However, a gap existed in how these programs had an effect on the caregiver's knowledge. As a result, a Living with Low Vision study was conducted in 2007 to investigate caregivers' experiences and outcomes regarding an understanding of the

participants' relative or friend's awareness of low-vision services, aids and practical strategies, confidence to deal with low vision, and general self-efficacy.

Participants in the study were relatives or friends of those already enrolled in the Living with Low Vision study, which consisted of 153 adults. Of those older adults in the study, one group was randomly assigned to be in the intervention group, while the other was enrolled in the non-intervention group. The intervention group received a self-help packet in addition to receiving low-vision rehab from a national vision rehabilitation organization. The non-intervention group received only the self-help packet. A control group consisting of caregivers of those in the Living with Low Vision study received no intervention at all. Participants were eligible for inclusion into the study if they were a friend or relative of the adult with low vision who was identified as the person they turned to for help, who were older than 18 years of age and could converse in English. The study was designed as a pre- and post-study that evaluated the impact of the program on single-item indicators that assessed confidence to deal with low vision, self-efficacy, and emotional well-being. Sixty participants were recruited, with half ( $n = 31$ ) representing spouses of the adults with low vision. Intervention group 1 consisted of 16 participants who received the take-home packet and low-vision rehab services. The non-intervention group consisted of 33 participants who received the take-home packet. The control group consisted of 11 participants who received no intervention. The mean age of the participant was 67.2 years old.

Larizza et al. (2011) revealed that participants in the two investigation groups demonstrated significantly greater awareness of low-vision aids and practical strategies ( $p < .05$ ). In addition, the intervention group demonstrated significantly improved awareness of practical strategies than the non-intervention group. Most intervention group participants agreed that the

program was relevant and helpful and would recommend it to other caregivers. The researchers concluded that involving caregivers in a patient-centered self-management program and providing them with an informative take-home packet improved their awareness of low-vision aids, devices, and practical strategies. They recommended that another study should be conducted to identify optimal ways of providing caregivers with information and problem-solving skills to effectively manage the demands of low vision.

In addition, Tey et al. (2019) conducted a randomized controlled trial to assess the effectiveness of a Living Successfully with Low Vision program to improve patient-centered outcomes. The program was based on social cognitive theory and focused on enhancing low-vision patients' emotional well-being and social interaction while cultivating problem-solving skills and improving self-efficacy. The aim of the study was to assess the short-term and long-term effectiveness of the program in improving vision-related quality of life, health-related quality of life, perceived self-efficacy, and mental health in a clinical low-vision population in Singapore. The researchers hypothesized that compared to those receiving usual care, those allocated to the Living Successfully with Low Vision program would show significant improvement. Recruitment for the study consisted of participants in low-vision clinics in the Singapore National Eye Center. Sample size included 165 participants with the intervention group consisting of 83 participants and the non-intervention group consisting of 82 participants. The intervention group attended the Living Successfully with Low Vision program where the non-intervention group received low-vision aid training only. Vision-related quality of life was measured via an Impact of Vision Impairment questionnaire in addition to other factors that measured health-related quality of life, mental health, and self-efficacy. Assessments were made at baseline, two weeks, and six months post-intervention. A total of 128 participants completed

all the assessments. At the two-week assessment, the Living Successfully with Low Vision participants alone experienced a significant within-group improvement in their emotional score but not at the six-month mark. No other “within or between group” effects were observed. The researchers concluded that although self-management programs have shown promising results in the management of chronic illness, they are not an effective approach for low-vision rehabilitation in Singapore (Tey et al., 2019).

In the present study, one LTC facility held a vision support group with meetings held on a monthly basis. They were conducted by a retired social worker who had previously worked with the blind population. Each participant in this study from that facility is a member. Participants in the group shared how the support group was of value to them. Ronnie mentioned that the group has been very helpful to her, and she worked with one of the ladies in the vision-support group, recruiting residents to volunteer for an hour and a half a week or a month in the convenience store located in the facility. She stated that it gave them an opportunity to work with somebody they did not know and helped them get to know new people. She further stated that a benefit of the group is that the vision loss is not seen as an impairment and that nobody is discriminated against. She complimented the group by noting, “We’re also learning how to handle ourselves in the eventuality that we won’t be able.” Audrey talked to the researcher about a vendor that had been helpful to the group in assisting them to manage with their vision impairments. She explained the benefits of the group by stating, “I mean that is so good with the group because somebody will find something—some new gadget or something—and share it. The idea of sharing something that you found out with somebody else is a good feeling.” She stated that because the group is so beneficial to her, she avoids scheduling any appointments on that day. When asked what she had done to contribute to the group, she stated, “If I can help

other people with things that I have that help me, I feel good about the situation.” Dorothy stated she attended the group and will usually show her face and support the group to show that she is involved. Judy stated, “We’re just very lucky” when speaking of the support group. She stated that the group leader would talk to them to make sure that they are “not feeling isolated and that their self-worth is not being diminished by this. It's always nice to know that whatever's wrong with you is also wrong with other people. You don't suffer alone. We do pick up ideas from one another.” Larry stated he found some of the meetings to be “a little boring because some of the people repeat the same thing over and over,” but he does attend when he is able to do so.

### **Major Findings**

A summary of the major findings is provided, highlighting the five themes derived from the analysis of the data. Sub-themes to each major theme served as a framework for understanding the meaning of the lived experiences of the older adult with a vision impairment and their adaptation and integration into social and recreational activities in the LTC setting. The essence of their lived experiences is illustrated in each of the five themes. Adaptation to the new normal was evident as the participants were able to accept their diagnosis (in addition to the emotions that came with it), overcome and conquer obstacles and challenges, find comfort in the support of others, while embracing for whatever the future brings.

### **Theme #1: Life Interrupted**

The 17 participants in this study all shared a common bond, as they all had a vision impairment and were residing in an LTC facility. Some participants' impairments came on suddenly; some progressed over time. However, for many, such as those with ARMD, AION, and glaucoma, the participants understood that there was no cure and that the progression of the impairment would only worsen, leading to inevitable blindness. A few of the participants with

the diagnosis of cataracts voiced hope for a successful correction. The participants expressed emotions as to how they felt upon hearing the diagnosis, what the diagnosis meant, and how it would impact them in the future. Emotions expressed were fear (specifically of falling), anxiety, feeling forlorn, being heartbroken, expressions of sadness, anger, and disappointment, to name a few. However, despite all the emotions verbalized, not one participant stated or expressed that they were depressed, which was well referenced in the literature through studies conducted by Brunes and Heir (2020), Petrovsky et al. (2019), and Tsai et al. (2003). Some participants shared with the researcher that they were unclear or not provided with a diagnosis, leaving them uncertain as to what to expect moving forward and what the future would hold for them. It is clear that nursing can play a role in educating those with visual impairments, not only to understand the meaning of the diagnosis but also how to adapt to changes that may interrupt their day-to-day activities.

### **Theme #2: The Impact Vision Impairment**

For the participants in this study, life as previously known and the aftermath of the vision loss had a significant influence on moving forward. All of them held positions in society (paid or not) and were socially engaged with others. As a result of their vision impairment, many participants shared how they were unable to recognize people, making some feel embarrassed and forlorn. The use of facial coverings (i.e., masks) added to the difficulty in recognizing familiar people due to pandemic-related restrictions placed on the facility. Driving accompanied by lighting (which was not addressed in the original review of the literature) were mentioned on numerous occasions by the participants. Participants who drove recognized their own limitations, surrendered their vehicles, and disclosed that a loss of their freedom accompanied it. In addition, the need for lighting, often taken for granted, was evident, with open-blinded windows and the

use of ceiling lamps, wall lamps, table lamps, and floor lamps left on in many rooms. Many participants living in the assisted living facility were fortunate to have had LED lighting installed, generating more light, while those in the skilled facilities were not as fortunate. For those with LED lighting, a difference was obvious to them with replies such as, “It absolutely made a difference” and “Oh, definitely. Definitely. You can see where you're going.” Nurses can collaborate with facility management services by providing education on the importance of lighting and how it can impact the residents not only in safety but also in one’s ability to engage in an enjoyable activity.

The study by Berger (2011) showed that engaging in activities was important to health and overall well-being. However, engaging in activities was not only a challenge and less enjoyable, but it took up a lot of time and energy. The researcher concluded that a challenge exists to explore effective interventions to facilitate the discovery of new ways to make activities easier, so they can find these meaningful while increasing their own socialization.

Visual impairment had an impact on activities that participants found enjoyable in the past. All the participants in this study were involved in many activities. Some were no longer able to sew, knit, and follow a pattern, making the activity difficult. Some were unable to read a book, complete a puzzle, or cook because they could not read the lines, follow a recipe, and see the knobs on the stove or microwave, leaving them fearful that they could possibly cause harm. Many liked the opportunity to engage in group activities, where they would be able to socialize with others. Unfortunately, the COVID-19 pandemic placed restrictions within the facilities where the participants were confined to their rooms or apartments. Technology such as Zoom kept many virtually engaged with each other as well as in the participation in programs (i.e., trivia, tai chi, and exercise). As one participant stated, “Zooming is a big thing.” Despite the



isolation imposed by the pandemic, the participants were able to adapt to the ever-changing guidelines by seeking other ways to stay social and active.

### **Theme #3: Adaptation to the New Normal**

As portrayed and described by the study participants, visual impairment presented challenges and obstacles, but they were able to adapt to them in many ways and accept this as the “new normal.” The presence of their visual impairment allowed them to recognize limitations (walking indoors versus outdoors, requesting help with ADLs, giving up driving), learn new skills (i.e., Zoom, stock market, audiobooks, computer, iPad/iPhone), improvise when necessary, and use adaptive equipment (mostly through the use of magnifiers), all which contributed to a successful adaptation. The cost of more sophisticated equipment—even a more powerful magnifier—presented a challenge, as all the participants purchased their own equipment based on their own financial resources, as very little was offered within their facilities. The participants were able to seek out their own solutions to help them function, maintain independence, and enjoy a positive and fulfilling quality of life.

### **Theme #4: Embracing Relationships**

The participants in this study relied on many members of the community in transcending into their new life and living arrangements that result from their visual impairment. The support of family, friends, staff, and each other was evident. Participants helped other participants (residents). Families and friends helped gather resources for the participant when they were unable to get or purchase on their own (i.e., books, puzzles, TVs). The staff intervened when necessary, but only when requested, as many participants wanted to maintain their independence and not succumb to being a burden. A few participants recognized they could use more help but fought with themselves to avoid asking for it unless absolutely necessary. A Visual Support

group held in one facility emphasized that they were not alone and that self-worth was never compromised. Unfortunately, not all facilities have services as described. The participants agreed that there were benefits to attending the group, as it prepared them on what to do when they could no longer do it. Ronnie stated, “We're also learning how to handle ourselves in the eventuality that we won't be able to see. Some people just enjoy being there and seeing the action, and those of us with glasses, we're glad we can see, and we're going to try to maximize what we do have until we can't.” Audrey commented, “If I can help other people with things that I have that help me, I feel good about the situation.” Judy shared, “It's always nice to know that whatever's wrong with you is also wrong with other people. You don't suffer alone. We do pick up ideas from one another.” Nurses and other members of the healthcare team, with appropriate education and guidance, should consider implementing a support group within their respective facilities (if one does not already exist), as it can be a valuable service to those affected.

### **Theme #5: Transcendence into the Future**

Those with a visual impairment often ponder how their condition will have an impact on their future. Many participants in this study maintained a positive attitude as evidenced by statements made. Some were indifferent. However, none of the participants displayed a negative attitude. Adaptation was evident, as the participants were able to look beyond the impairment and transcend into their future. As Judy stated, “I just live, and I mostly have a good time here. I'm not sad. I'm optimistic. I'm an optimist by nature, so I have to assume that things will get better.” Alan added, “You adapt; if somebody gives you a lemon, you make lemonade.” Audrey revealed, “I've adjusted. I make the most of what the good Lord gave me. You do the best with what you've got. You do the best you can. I do the best I can.” S Regina disclosed, “There's no use fighting it; you learn to live with it.”

The findings of this hermeneutic phenomenological study displayed the meaning of the experience of living with a visual impairment for this group of older adult participants. While each participant's lived experience was different, commonalities were discovered. More than one viewpoint, more than one experience, and more than one truth revealed the uniqueness of each one's experience. In their own words, the participants were able to identify the phenomenon of visual impairment, describe its impact, adapt to their new normal, embrace relationships, and transcend into the future, ultimately allowing them to successfully continue to engage in social and recreational activities.

### **Implications for Nursing Education**

Eye care will need to be regarded as a crucial component of the health care of older adults, as visual loss in this population (largely due to an age-related process) will continue to present a challenge (Watkinson, 2009). Maintaining good vision is an important aspect to the overall health of older adults, as they are at increased risk for age-related vision loss (Swenor & Ehrlich, 2021). Visual function is often associated with a diminished quality of life and functional ADLs, depression, anxiety, emotional distress, and social isolation. A challenge exists for nurses as they will need knowledge of common eye-related conditions beyond what is taught in their initial nursing training to provide older adults with better sight related to their quality of life. This training will help and support the older adult gain sufficient control over the management of their visual loss impacting on their self-esteem, confidence, and independence in their lives, in addition to their ability to perform ADLs and to participate in social and recreational activities (Ehrlich et al., 2018; Watkinson, 2009).

Age-related sensory loss and its profound impact on the older adult is not significantly featured in pre-licensure nursing education nor in continuing professional education programs.

Currently, there is a dearth of research on the development of educational interventions that are tailored around sensory impairments. One of the most effective ways to address any healthcare challenge is through education to build capability and confidence among future healthcare practitioners (Macaden et al., 2017). Nursing education must be relevant to the health and social care needs of all older adults, especially those with a sensory impairment such as vision. As a result, this poses a need for nurse educators to be creative and resourceful in the design and implementation of nursing education programs that are clinically relevant to this population. One such way to achieve this is using simulation as an effective pedagogical method for the clinical component of nursing education, which has been endorsed by educators and students alike (Macaden et al., 2017).

Simulation is an instructional process that substitutes real patient encounters with artificial models, live actors, or virtual reality patients, giving students the opportunity to be able to practice relevant educational principles and self-reflection (Macaden et al., 2017). The literature on the use of simulation as a pedagogical approach to teach sensory impairments in older adults is limited; yet simulation is perceived to be an appropriate experiential-learning strategy. This strategy can facilitate nursing students' experience, helping them develop empathic insight, thus increasing their skills and confidence in caring for older adults with sensory impairments. Such skills can include the use and demonstration of adaptive equipment. In a study conducted by Macaden et al. (2017), a simulation-based teaching resource was created with sensory challenges (i.e., visual, and auditory) to provide student nurses with opportunities for experiential learning on sensory impairment in older adults. The aim of this simulation-based activity was to enable students to gain new insights on sensory impairment and to appreciate the day-to-day challenges faced by older adults with a sensory impairment (Macaden et al., 2017).

In their study, 125 nursing students participated in a simulation activity prior to their first clinical placement. Six learning stations were created with a specific learning activity (i.e., button sorting, reading a newspaper, setting a table, eating while blindfolded, completing a form), each simulating common changes in sensory perception associated with the aging process that nursing students are likely to encounter in the acute care setting. Each session ran for 90 minutes where facilitators (i.e., faculty members) were assigned to each simulation activity. Four students were assigned per group, with 10-minute briefing sessions held prior to the simulation and 20-minute briefing sessions held after the simulation experience. The initial briefing sessions described the details, goals, and outcomes anticipated for each station. The students spent 10 minutes at each station. Two students assumed the role of the older adult with a vision impairment, one assumed the role of the nurse, and one assumed the role of the observer. The observer's role was to read the instructions to the participant at each station and to capture the reflections, thoughts, feelings, insights, and emotions that each experienced during the activity. The students were encouraged to change roles as appropriate with each station so that all could gain those experiences.

The classroom environment was modified to recreate noise and light levels often found in a setting such as the hospital. This was achieved by dimming lighting as well as increasing background noise and overhead music, as this is the normal environment that older adults often negotiate in LTC or acute care settings (Macaden et al., 2017). The simulation was a simple, low-tech intervention creatively designed to maximize the opportunity for experiential learning on sensory impairments in older adults. Students who participated in the activity were able to appreciate the emotions that older adults with impairments experienced, thus affecting their own attitudes in influencing quality of life (including the engagement in social and recreational

activities) provided in LTC facilities.

Macaden et al. (2017) concluded that the simulation experience helped students appreciate the complexity in helping support patients with sensory impairments, but that further research was necessary to explore the long-term impact of the simulation activities. The researchers remarked that nurse educators develop teaching strategies to prepare nurses early in their careers to appreciate the impact experienced by older adults with vision impairments, because nurses will encounter this population in all care settings.

A simulation activity such as this can easily be transferred to any nursing program's clinical simulation laboratory experience. The activity can be combined with a physical assessment activity or designed as its own unique and independent laboratory activity. In addition, this activity can be included as part of a LTC orientation or post-licensure continuing education activity where the use of adaptive devices can also be included.

### **Social Policy Reform**

According to the World Health Organization, there are approximately 10 million people with a visual impairment in the United States alone, with numbers estimated worldwide at 250 million (Radu, 2017). Approximately 60% of visually impaired non-institutionalized Americans were unemployed in 2015. The cost of technologies intended to help make the blind employable seems to be a deterrent to many (Radu, 2017). Research has shown that the assistive technology market in the United States for vision and reading aids will reach \$34.4 billion beyond 2020, but there are no clear signs that the burden of covering costs will fall on anyone else but those who require it (Radu, 2017).

Many visually impaired older adults with glaucoma, ARMD, or even cataracts rely on assistive devices. Some are as simple as a magnifier, but cost can be a factor in the purchase of

one. Magnifiers are often used for reading newspapers, magazines, labels, letters, and appliance knobs. Handheld magnifiers are a basic visual aid with the most affordable ones (that look like a detective magnifier) to more concentrated ones (like a jeweler's eye), ranging in cost from free to about \$30. Illuminated handheld magnifiers (ergonomically sound and can be used as stand magnifiers) can be purchased through Amazon and can retail at about \$175. Another item that can be purchased via Amazon, with a retail price of approximately \$595, is a technologically up-to-date portable video handheld precision-vision magnifier; this device provides multiple magnification settings and viewing modes and has a pullout stand for easy reading and writing (Bird, 2019). Desktop or stand-alone magnifiers can be used when wanting to read an entire page of a book or magazine. These devices have a stand that sits on a desktop or floor and allows a hands-free magnifying experience. Prices vary, depending on the complexity of features or whether it has LED lights. These devices can cost anywhere from \$20 to \$600. Basic magnifiers on the low end of cost such as a reading magnifier (which is desktop and sold from the vendor Maxi Aids) costs about \$44.95, with a higher-end electronic magnifier costing approximately \$1,795. A tablet with a Braille keyboard and display, which can provide information either via Braille or through speech, can cost around \$5,500 (Bird, 2019).

Often, those affected by visual loss pay for devices via credit card and monthly payments. Older adults—especially those who do not have the financial resources—often rely on their children and grandchildren to purchase these devices. Experts have concluded that solutions to pay for these devices are often challenging to cover through other funds such as state and federal programs, as it's difficult to define what is a “required assistive tool” and one that “increases efficiency” (Bird, 2019). These tools are usually not paid for by insurance, as they are not considered medical devices but productivity tools that allow the impaired to do what a non-

impaired person can do but in a different way. Without the use of the device or tool, quality of life becomes just as impaired as the vision. Although cost is a factor in attaining these devices or tools, access to the technology and equipment is also a challenge. Many magnifiers can be purchased in pharmacies, optometrist offices, or through online retailers, but the higher-end devices are often not able to be purchased there, making them difficult to obtain (Bird, 2019).

With ARMD, regular eyeglasses become less effective, which is why specialized glasses may be required to see at a distance or up close. These low-vision devices for ARMD offer high-powered magnification to reduce the size of blind spots. Some offer tinting to reduce glare, improve contrast, and improve light transmission. Most opticians can provide a prescription for these specialized glasses, yet cost or insurance coverage is questionable (Bird, 2019).

Public education at an individual, organizational, or governmental level is imperative. Legislation is currently before the Congress to provide at minimum a tax deduction for those who must pay for their own equipment. A bipartisan bill introduced into the Senate on February 3, 2021, by Senators Cardin, Boozman, Wyden, Burr, and Tester titled S. 212, “The Access Technology Affordability Act of 2021” will allow a refundable tax credit equal to the amounts paid for qualified access technology for use by a blind individual who is the taxpayer, the taxpayer’s spouse, or a dependent of the taxpayer. Qualified access technology is hardware, software, or other information technology, with the primary function of converting or adapting information that is visually represented into forms or formats usable by blind individuals (Cardin et al., 2021). Blindness, as per the Internal Revenue Code Section 63(f) (4), is considered “an individual who is blind if only his central vision acuity does not exceed 20/200 in the better eye with corrective lenses or if his visual acuity is greater than 20/200 but is accompanied by a limitation in the specific fields of vision” (Internal Revenue Code, 1986). However as of this



date, the bill has not advanced further and remains “introduced,” as Congress has been hesitant to adopt legislation requiring standards for medical devices and appliances.

As evident with the participants in this study, many had magnifiers purchased on their own and out of pocket, as insurance does not cover the cost. Those participants living in assisted living facilities appeared to have more financial resources than those in skilled facilities. Those living in assisted living pay for their expenses privately, while those in skilled facilities are often Medicaid recipients, and access to high-tech equipment is not always available and affordable to them. It is imperative that nursing professionals reach out at the local and state governmental levels through their legislators, state senators, advocacy groups, and stakeholders (i.e., optometrists, ophthalmologists, and vendors), as accessibility to funding for devices for visually impaired adults (especially older adults) needs to be pursued. Advocating for accessible technology will improve the older adult’s quality of life, thus allowing them to continue employment or engage in activities that are socially engaging, as this is the fastest growing population in the United States, let alone the world.

### **Nursing Practice**

Nursing as an art and science continues to evolve because of evidence-based research in practice and disease management but also in part due to the needs of a rapidly growing aging population. Healthcare provider systems are also changing where nurses are expected to provide comprehensive yet individualized care to meet the complex and diverse needs of this population. Nurses are challenged on how their practice contributes to society as professionals, as they are expected to take responsibility for providing direct care, protecting individual lives, and supporting ADL. To accomplish this, nursing must maintain competence in the delivery of care. Nursing competency is a core ability that is required for fulfilling nursing responsibilities

(Fukada, 2018). Nursing curriculums—whether it be in initial pre-licensure education, employment orientation and re-orientation programs, or through post-licensure continuing education—must focus on providing up-to-date skills training where competence and proficiency is assured. Competence in caring for older adults with visual impairments is imperative, as the rise in age-related visual changes is expected with this fast-growing population.

One way in which nurses can maintain safe and competent practice is through competency-based training. Educational programs may provide didactic information, but applying that information into practice is necessary. Educators and employers should consider competency-based educational programs where skills can be evaluated and critical thinking can be measured. In nursing practice, nurses are required to apply their acquired knowledge, skills, and innate traits to each situation and be able to adapt that knowledge and skills to different circumstances. Developing a competency-based program related to caring for the visually impaired older adult is necessary, as vision may not be included with other measured skill sets tested in the clinical lab, at the time of initial hire or annually thereafter. Many nursing schools offer gerontology as a minor, which would be an ideal way for nursing students to gain more knowledge regarding this component of the aging process. Nurse practitioner programs should consider having their students offer vision services to the LTC resident population.

### **Nursing Research**

According to Butler et al. (2019), access to adequate lighting is a public health issue. A gap exists in the understanding of health professionals in how lighting can help older adults. Behavioral changes, such as incorporating rehabilitation interventions within lighting clinics, in addition to adult education programs empowering older adults in meeting their own lighting needs is sorely needed. In addition, a need for educational research is warranted to establish

effective ways of managing the learning needs of older people with vision impairments.

Networking with opticians and lighting professionals can help in this endeavor.

This study can easily display transferability. It is recommended that a future study be conducted on the lived experience of older adults with visual impairments living at home versus the LTC setting. Diversity in ethnicity, the presence or lack of support systems, religion, and socio-economic status (which were not previously addressed) need to be considered, as these may influence their integration and engagement into social and recreational activities. Another recommendation is to conduct a study of the lived experience of the spouse and/or other family members and how the impact of visual impairment has affected their lives and the adjustments they may have had to make to keep their loved one safe, independent, and engaged in social and recreational programs.

### **Limitations**

The homogeneity of the participants in this study was a limiting factor, as all participants lived within a LTC facility rather than in their own homes. This study was not designed to be ethnicity specific, but 15 participants were White (with one being White-Hispanic) and 2 were Asian. None of the participants were African American or of another race. In addition, socioeconomic status was not part of the demographic data, which could have given insight into access and the ability to purchase equipment. Those living in facilities in lower socioeconomic areas or those who lack the resources to purchase equipment could present a different picture. Further studies may need to be conducted in the future.

The researcher wore a facial covering (surgical type of mask) over her nose and mouth during all interviews. The residents chose not to wear a mask, indicating they were vaccinated against COVID-19. It is possible that the researcher's mask may have hampered communication

during the interview by limiting the participant's recognition of the researcher's expressions.

### **Personal Reflections**

The experience of this researcher as a leader and educator in gerontological nursing, along with having a passion for improving the health care of older adults, led her to pursue the topic of visual impairment among older adults in the LTC setting and their integration into social and recreational programs. As the researcher began the literature review and developed her proposal, gaps existed in how older adults adapted to their visual impairment in the LTC setting. The researcher's biases that all long-term residents were treated the same without any special intervention from facility staff did exist (primarily observed in the skilled facility), but the participants adapted positively to those changes and found their own solutions to maintain a quality of life. The researcher was given the unique opportunity to learn about this phenomenon in the participants' natural setting. With each interview, she felt honored to be accepted and welcomed into their residential setting, not only as a professional but also as a confidante, as it allowed the participants to describe their own individual experiences. It was astonishing to her that whether the conversation flowed easily or needed gentle prompting, the participants readily shared their personal thoughts and feelings about their day-to-day lives and how they adapted to their visual impairment. The experience was so touching that as the researcher dwelled upon the data collected, it was impossible to stop thinking about the challenges of each of the participants and how they successfully adapted. The researcher felt compelled to initiate a conversation (outside of this study) with those she encountered in social situations to probe about their own visual impairment. A tremendous sense that someone was interested in what they had to say (especially considering the COVID-19 pandemic) was conveyed by many of the participants, as they felt this was a subject that needed to be addressed. The researcher was left compelled to

assure that health care policy and reform be addressed with local government (especially regarding cost-saving services) through collaboration with stakeholders who have a vested interest in this subject. More work needs to be done, as the population of older adults with a visual impairment will continue to rise.

Older adults with a visual impairment living in the LTC setting were able to adapt to changes brought about by their impairment and successfully integrate into social and recreational activities as vividly described in the rich details of their own lived experience. This study demonstrated an ability to be transferrable, as further studies should be considered with older adults living in the community. Those studies may reveal a more diverse ethnic population with varied socioeconomic statuses, which may have an influence in their ability to integrate into programs. In addition, studies directed toward the impact on family members and caregivers of those older adults with visual impairments should be considered. Social health policy as it pertains to cost must be addressed, as it is imperative that adaptive equipment be made more accessible and affordable for this population. The need for visual support groups should be considered in LTC facilities and in the community, as they have been shown by this population to be beneficial in leading a positive and successful quality of life.

In the words of Mary Ann, a participant in this study:

You have to listen to the patient, look into the patient's eyes, and try and see what they're trying to tell you. That's very important. If you don't have eye contact, or you don't really pay attention to them, it's not going to do you any good. That's what you're going to want to watch out for.

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## Appendix A

### Approval by the Molloy College Institutional Review Board



1000 Hempstead Ave., PO Box 5002, Rockville Center, NY 11571-5002  
[www.molloy.edu](http://www.molloy.edu)

**Kathleen Maurer Smith, Ph.D.**  
**Dean, Graduate Academic Affairs**  
**T: 516.323.3801**

**F:** 516.323.3398  
**E:** [ksmith@molloy.edu](mailto:ksmith@molloy.edu)

**DATE:** May 6, 2021

**TO:** Julie Conboy Russo, MS  
**FROM:** Molloy College IRB

**PROJECT TITLE:** [1751688-1] The lived experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting- a phenomenological study.

**REFERENCE #:**

**SUBMISSION TYPE:** New Project

**ACTION:** DETERMINATION OF EXEMPT STATUS

**DECISION DATE:** May 6, 2021

**REVIEW CATEGORY:** Exemption category # 2

Thank you for your submission of New Project materials for this project. The Molloy College IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations. However, exempt research activities are subject to the same human subject protections and ethical standards as outlined in the Belmont Report.

**LONG TERM CARE FACILITY COVID POLICY TO BE ADHERED TO WHEN INTERVIEWING.**

This acknowledgement expires within three years- unless there is a change to the protocol.

Though this protocol does not require annual IRB review, the IRB requires an annual report of your exempt protocol (Expedited and Exempt Research Protocol Annual Report Form) which is available on the IRB webpage.

If there is a proposed change to the protocol, it is the responsibility of the Principal Investigator to inform the Molloy College IRB of any requested changes before implementation. A change in the research may change the project from EXEMPT status and requires prior communication with the IRB.



We will retain a copy of this correspondence within our records.

If you have any questions, please contact Patricia Eckardt at 516-323-3711 or [peckardt@molloy.edu](mailto:peckardt@molloy.edu). Please include your project title and reference number in all correspondence with this committee.

Sincerely,

Patricia Eckardt, Ph.D., RN, FAAN

Chair, Molloy College Institutional Review Board.

This letter has been issued in accordance with all applicable regulations, and a copy is retained within Molloy College IRB's records.



1000 Hempstead Ave., PO Box 5002, Rockville Center, NY 11571-5002  
[www.molloy.edu](http://www.molloy.edu)

**Kathleen Maurer Smith, Ph.D.**  
**Dean, Graduate Academic Affairs**  
**T: 516.323.3801**

**F:** 516.323.3398  
**E:** [ksmith@molloy.edu](mailto:ksmith@molloy.edu)

**DATE:** June 7, 2021

**TO:** Julie Conboy Russo, MS  
**FROM:** Molloy College IRB

**PROJECT TITLE:** [1751688-2] The lived experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting- a phenomenological study.

**REFERENCE #:**

**SUBMISSION TYPE:** Amendment/Modification

**ACTION:** ACKNOWLEDGED

**EFFECTIVE DATE:** June 7, 2021

**EXPIRATION DATE:** May 3, 2024

Thank you for submitting the Amendment/Modification materials for this project. The Molloy College IRB has ACKNOWLEDGED your submission. No further action on submission 1751688-2 is required at this time.

The following items are acknowledged in this submission:

- Amendment/Modification - Amendment\_Revision\_Application\_pdf\_2018 (8).pdf (UPDATED: 06/5/2021)
- Letter - IRB- Request for Approval to Conduct Research in a LTC facility revised 6-5-2021.docx (UPDATED: 06/5/2021)

Please refer to Molloy College IRB Policies and Procedures for required submission process if any changes to this project.

If you have any questions, please contact Patricia Eckardt at 516-323-3711 or [peckardt@molloy.edu](mailto:peckardt@molloy.edu). Please include your project title and reference number in all correspondence with this committee.

Sincerely,

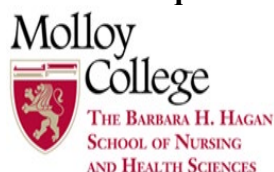
Patricia Eckardt, Ph.D., RN, FAAN  
 Chair, Molloy College Institutional Review Board

- 1 - Generated on IRBNet

This letter has been issued in accordance with all applicable regulations, and a copy is retained within Molloy College IRB's records.

## Appendix B

### Request for Approval to Conduct Research in a Long-Term Care Facility



Hello \_\_\_\_\_,

I am a Nursing Doctoral Candidate in the PhD program at Molloy College in Rockville Centre, NY, and a long-term care nurse with over 37 years of experience. I am conducting a research study on the experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting.

Eligible participants must be English speaking, any gender, age 60 or older, have a visual impairment, have transitioned to the long-term care setting within the last 24 months and are able to be interviewed to participate.

The required commitment of participants includes: One (30-60 min.) audio-recorded confidential interview with one optional (30 minute) follow-up interview 1-4 weeks later, conducted at a mutually agreed upon time by phone, Face Time, Skype, or Zoom. In person interviews can be arranged when and if permitted by reduced Covid-19 restrictions and Molloy College Institutional Review Board policy. Informed consent will be obtained to participate.

I have attached for your review, an abstract summary of this research, the study advertisement, and the participant consent that I would obtain after verifying with you that they are allowed to give an informed consent. If you have any questions, please do not hesitate to phone, text, or email me at: (cell) (516) 398-4269 or my Molloy College email: jconboyrosso@lions.molloy.edu.

It is my hope that you will afford me permission to conduct this research with any interested residents in your facility. I kindly ask that you sign, date, and return this form to me by email or postal mail in the addressed and stamped envelope attached. I thank you in advance and hope to hear from you soon.

Respectfully,

***Julie Conboy Russo MS, RN***

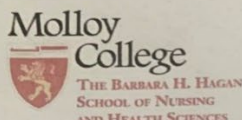
Julie Conboy Russo MS, RN Nursing Doctoral Student  
jconboyrosso@lions.molloy.edu, Cell 516-398-4269  
Molloy College, 1000 Hempstead Ave.  
Rockville Centre, NY 11571 Phone 516-323-3000

---

I grant permission for Julie Conboy Russo MS, RN to conduct her research with interested and eligible residents residing @ \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

Molloy College IRB  
 Approval Date: May 6, 2021  
 Expiration Date: May 3, 2024



**Request for Approval to Conduct Research  
 in a Long-Term Care Facility**

Hello Ms. Burton

I am a Nursing Doctoral Candidate in the PhD program at Molloy College in Rockville Centre, NY, and a long-term care nurse with over 37 years of experience. I am conducting a research study on the experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting.

Eligible participants must be English speaking, any gender, age 60 or older, have a visual impairment, have transitioned to the long-term care setting within the last 24 months and are able to be interviewed to participate.

The required commitment of participants includes: One (30-60 min.) audio-recorded confidential interview with one optional (30 minute) follow-up interview 1-4 weeks later, conducted at a mutually agreed upon time by phone, Face Time, Skype, or Zoom. In person interviews can be arranged when and if permitted by reduced Covid-19 restrictions and Molloy College Institutional Review Board policy. Informed consent will be obtained to participate.

I have attached for your review, an abstract summary of this research, the study advertisement and the participant consent that I would obtain after verifying with you that they are allowed to give an informed consent. If you have any questions, please do not hesitate to phone, text, or email me at: (cell) (516) 398-4269 or my Molloy College email: jconboyrosso@lions.molloy.edu.

It is my hope that you will afford me permission to conduct this research with any interested residents in your facility. I kindly ask that you sign, date, and return this form to me by email or postal mail in the addressed and stamped envelope attached. I thank you in advance and hope to hear from you soon.

Respectfully,

*Julie Conboy Russo MS, RN*

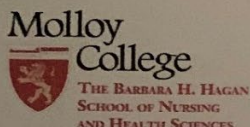
Julie Conboy Russo MS, RN Nursing Doctoral Student  
[jconboyrosso@lions.molloy.edu](mailto:jconboyrosso@lions.molloy.edu), Cell 516-398-4269  
 Molloy College, 1000 Hempstead Ave.  
 Rockville Centre, NY 11571 Phone 516-323-3000

I grant permission for Julie Conboy Russo MS, RN to conduct her research with interested and eligible residents residing @ Maria Regina Residence

Name Brenda Burton Title Administrator

Signature Brenda Burton Date 5/24/21

Molloy College IRB  
 Approval Date: May 6, 2021  
 Expiration Date: May 3, 2024



**Request for Approval to Conduct Research  
 in a Long-Term Care Facility**

Hello Michelle Pizarro Rosado

I am a Nursing Doctoral Candidate in the PhD program at Molloy College in Rockville Centre, NY, and a long-term care nurse with over 37 years of experience. I am conducting a research study on the experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting.

Eligible participants must be English speaking, any gender, age 60 or older, have a visual impairment, have transitioned to the long-term care setting within the last 24 months and are able to be interviewed to participate.

The required commitment of participants includes: One (30-60 min.) audio-recorded confidential interview with one optional (30 minute) follow-up interview 1-4 weeks later, conducted at a mutually agreed upon time by phone, Face Time, Skype, or Zoom. In person interviews can be arranged when and if permitted by reduced Covid-19 restrictions and Molloy College Institutional Review Board policy. Informed consent will be obtained to participate.

I have attached for your review, an abstract summary of this research, the study advertisement and the participant consent that I would obtain after verifying with you that they are allowed to give an informed consent. If you have any questions, please do not hesitate to phone, text, or email me at: (cell) (516) 398-4269 or my Molloy College email: [jconboyrusso@lions.molloy.edu](mailto:jconboyrusso@lions.molloy.edu).

It is my hope that you will afford me permission to conduct this research with any interested residents in your facility. I kindly ask that you sign, date, and return this form to me by email or postal mail in the addressed and stamped envelope attached. I thank you in advance and hope to hear from you soon.

Respectfully,

*Julie Conboy Russo MS, RN*

*Julie Conboy Russo*  
 Julie Conboy Russo MS, RN Nursing Doctoral Student  
[jconboyrusso@lions.molloy.edu](mailto:jconboyrusso@lions.molloy.edu), Cell 516-398-4269  
 Molloy College, 1000 Hempstead Ave.  
 Rockville Centre, NY 11571 Phone 516-323-3000

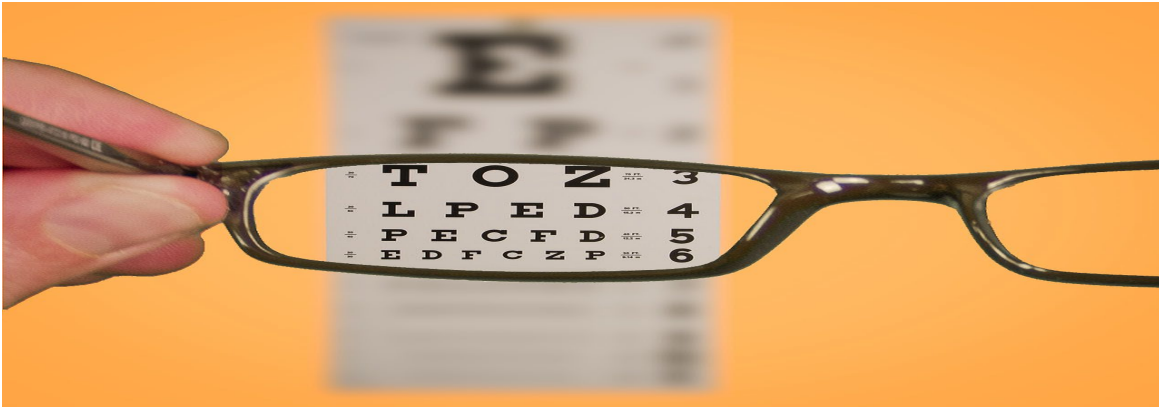
I grant permission for Julie Conboy Russo MS, RN to conduct her research with interested and eligible residents residing @ Little Neck Care Center

Name Michelle Pizarro Rosado Title RN

Signature [Signature] Date 5/14/21



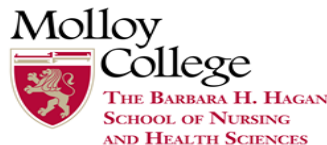
Appendix C  
Recruitment Flyer



Do you have vision loss? Do you like to participate in enjoyable leisure activities? Would you be interested in participating in a 30–60-minute confidential interview with me by telephone? Or if you desire it can be by Zoom, Skype, or Facetime?

If so, please contact Julie Conboy Russo RN @  
jconboyrosso@lions.molloy.com or  
(516) 398-4269 for more information!

## Appendix D



### Letter/Statement to Potential Participants

Date \_\_\_\_\_

Dear \_\_\_\_\_,

Thank you for your interest in participating in this qualitative research study. The purpose of this study is to understand the experience older adults with visual impairments and their integration into social and recreational programs in the long-term care setting. The goal is to allow your experience of living with a visual impairment provide nursing with information about helping older adults adapt and seek out available resources as needed. It is hoped that knowledge gained from this research will help future nursing professionals understand how to help individuals with vision loss engage in recreational and social activities.

Volunteers will participate in an individual recorded interview with the investigator lasting approximately 30-60 min. The interview is scheduled at your convenience and can be by Internet technology such as Zoom or Facetime or by telephone.

An optional follow-up contact can be scheduled for you to clarify and/or validate the analyzed interview that you participated in. You could choose to do this by email, telephone, Zoom or Facetime. It would take less than 30 minutes.

You will be provided a consent form that I will review with you over the telephone. After all your questions are answered you would sign the consent and return it by email or postal mail to me in the stamped, self-addressed envelope I will provide. You would be given a signed copy to retain.

Please contact me for any questions you may have. Thank you for your consideration in participating in this study. I would appreciate your input and perspective on this important topic.

Sincerely,

Julie Conboy Russo MS RN- PhD student

Barbara H. Hagan School of Nursing and Health Sciences

Molloy College

1000 Hempstead Ave., Rockville Centre, NY 11571

[jconboyruzzo@lions.molloy.edu](mailto:jconboyruzzo@lions.molloy.edu) or (c) 516-398-4269



## Appendix E



### Informed Consent

Molloy College  
Barbara H. Hagan School of Nursing  
1000 Hempstead Avenue  
Rockville Centre, NY 11571  
1-516-323-3000

**Title of Study:** The lived experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting: a phenomenological study.

**Principle Investigator:** Julie Conboy Russo MS, RN, a Doctoral Student in the Barbara H. Hagan School of Nursing and Health Sciences

#### Key Information About This Study

**This consent form is designed to inform you about the study you are being asked to participate in. Here you will find a brief summary about the study; however, you can find more detailed information later on in the form.**

- This is a research activity studying the lived experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting.
- Inclusion criteria will consist of those who are: English speaking, any gender, age  $60 \geq$  who were diagnosed as having a visual impairment and who have transitioned to a LTC setting within the last twenty-four months.
- Exclusion criteria is anyone who is: not English speaking, age  $< 60$ , are hearing impaired and who have not transitioned to a LTC setting within the last twenty-four months.
- There are no known or anticipated risks or benefits. Participating is voluntary and you can withdraw from the study at any time.
- The time commitment will consist of an interview lasting approximately 30-60 minutes. A copy of the transcribed interview will be provided to you for accuracy and validation of your statements. A follow-up interview of approximately 30 minutes may be

conducted to validate the interview data.

- A \$25.00 gift card will be provided for participation at the completion of your interviews.
- Interview data, field notes and voice recordings will be kept confidential, and anonymity will be protected to the greatest extent possible although there is no guarantee. A pseudonym (not your real name) will be assigned, and pertinent information will be shared with the dissertation committee.

### **Why am I being asked to take part in this study?**

Little is known about the lived experience of older adults with visual impairments and their integration into recreational activities in the long-term care setting. By participating in this study your experience will provide insights that may be helpful in influencing changes in health care practices and programs. The long-term significance of this study is that knowledge of any identified barriers, facilitators, and accommodations may improve quality of life for individuals with a vision impairment.

### **What will I be asked to do?**

After signing the consent form, you will then be asked to schedule an interview (approximately 30-60 min.) at your convenience with this investigator. The interview will be voice recorded and I will take written notes.

I will begin by asking you some brief demographic questions including your age, marital status, past occupation, education, type of vision loss, other illnesses you have, and what assistive devices you may use.

There are interview topics that have to do with your participation in social and recreational activities here at this long-term-care facility and how your vision affects your participation.

An optional follow-up interview (approximately 30 minutes) can be scheduled for you to add information, as desired, and to clarify my understanding of your information. This may be by telephone, Zoom, Facetime, or in-person if permitted.

### **Where is the study going to take place, and how long will it take?**

The interview will take place virtually or here in this facility, in an area that is comfortable and convenient to you, such as your room (when or where allowed until further notice due to Covid-19). It will last for approximately 30-60 minutes. An optional follow-up interview of about 30 minutes is also requested approximately 1-4 weeks later.

### **What are the risks and discomforts?**

It is not possible to identify all potential risks in research; however, reasonable safeguards have been taken to minimize known risks. If an uncomfortable memory triggers a physical or psychological response, the interview will stop. Time will be allotted for any necessary support and the decision to continue with the interview will be yours. If new findings develop during the course of the research which may change your willingness to participate, I will tell you about these findings and you may withdraw from the study at any time.

Although every reasonable effort will be taken, breach of the protections in place to maintain confidentiality cannot be guaranteed. We will minimize any risks of confidentiality breach by coding written data on interviews and using pseudonyms (not your real name or the real name of patients or locations). This way, while information will not be anonymous, it will be coded decreasing risk to your data confidentiality.

**What are the expected benefits of this research?**

There is no direct benefit to you from the study however the findings might provide insights that may be helpful in influencing changes in health care practices and programs designed to remove any identified barriers and making sure accommodations will improve this population's quality of life.

**Do I have to take part in this study?**

Your participation in this research is your choice. If you decide to participate in the study, you may change your mind and stop participating at any time without penalty or loss of benefits to which you are already entitled.

**Will it cost me anything to participate?** There are no costs to participating in this study.

**What are the alternatives to being in this study?** Instead of being in this research, you may choose to not participate.

**Who will have access to my information?**

You will be identified only by a pseudonym (another name for yourself). Your personal information and signed consent will be kept confidential. Your real name will not be reported in any publication or presentation of the study.

Only the group data obtained as a result of your participation in this study will be made public. Personal identifiers such as addresses, workplace, or health care providers will not be used in any publication. Email communication will be kept confidential and deleted after read and transcribed to secure computer study files without any of your personal identifiers.

**How will my information be used?**

All the study participants' information will be analyzed as a group and summarized into a written document for the purpose of sharing the research analysis with health professionals and the academic (college and university) community.

Any future publications related to this research may then help to inform nurses of identified barriers, facilitators, and needed accommodations to improve quality of life for individuals with a vision impairment. Your information collected as part of this research will not be used or distributed for future research studies.

**To ensure that this research activity is being conducted properly, Molloy College's Institutional Review Board (IRB), whose members are responsible for the protection of human subjects' rights for all Molloy-approved research protocols, have the right to review study records, but confidentiality will be maintained as allowed by law.**

**Can my participation in the study end early?**

Your decision to continue in this study is completely voluntary. At any time during the interview process, you have the right to withdraw from the study if you so choose. Any information you have contributed may also be excluded if you choose.

**Will I receive any compensation for participating in the study?**

You will receive a \$25.00 gift card for participating in the study after your interview(s).

**What if I have questions?**

Before you decide whether you would like to participate in this study, please ask any questions that come to mind now.

Later, if you have questions about the study, you can contact Julie Conboy Russo at [jconboyrusso@lions.molloy.edu](mailto:jconboyrusso@lions.molloy.edu) or my Doctoral Dissertation Chairperson Dr. Susan Ann Vitale at [Svitale@molloy.edu](mailto:Svitale@molloy.edu), 516-323-3000.

**What are my rights as a research participant?**

You have rights as a research participant. All research with human participants is reviewed by a committee called the Institutional Review Board (IRB) which works to protect your rights and welfare. If you have questions about your rights, an unresolved question, a concern, or complaint about this research you may contact the IRB contact the Molloy IRB office at [irb@molloy.edu](mailto:irb@molloy.edu) or call 516-323-3000.

**Documentation of Informed Consent:**

**You are freely making a decision whether to be in this research study. Your verbal permission means that:**

- 1. You have understood the consent process.**
- 2. You have had your questions answered.**
- 3. You understand that the interview conducted will be voice recorded and field notes may be written.**
- 4. You understand that your anonymity will be protected to the greatest extent Possible and that data collected will be shared with the dissertation chairperson and dissertation committee.**
- 5. And after sufficient time to make your choice, you have decided to be included in the study.**

**You will be given a copy of this consent form to keep.**

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Your Signature

---

Date

---

Your Printed Name

---

Date

I also consent to audio tape recording of my interview(s) if conducted in person, by telephone, Facetime or video/audio recording if conducted by Zoom.

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Your Signature

---

Date

---

Your Printed Name

---

Date

---

Signature of researcher explaining study

---

Date

---

Printed name of researcher explaining study

---

Date

## Appendix F

### Demographic Inventory

Questions will be asked by the researcher to the participant and all answers will be documented by the researcher.

1. How old are you? \_\_\_\_\_
2. How do you self-identify?
  - a. Male \_\_\_\_\_
  - b. Female \_\_\_\_\_
  - c. Other \_\_\_\_\_
3. Which cultural group do you identify with?
  - a. White (non-Hispanic) \_\_\_\_\_
  - b. Black (non-Hispanic) \_\_\_\_\_
  - c. Hispanic \_\_\_\_\_
  - d. Asian \_\_\_\_\_
  - e. Native American \_\_\_\_\_
  - f. Pacific Islander \_\_\_\_\_
  - g. Other (describe if more than one or other not listed) \_\_\_\_\_
4. What is your marital status? \_\_\_\_\_
5. Do you have any children? \_\_\_\_\_ If yes, how many? \_\_\_\_\_
6. What is the highest-grade level you achieved? \_\_\_\_\_ \
7. What did you do for a living? \_\_\_\_\_
8. What diagnosis have you been given related to your vision? \_\_\_\_\_
9. At what age were you diagnosed with this? \_\_\_\_\_
10. Tell me about some of your other health problems? \_\_\_\_\_
11. How long have you been living in this facility? \_\_\_\_\_
12. How often do friends and family come to visit? \_\_\_\_\_
13. Do you use any assistive devices you use to help you with your vision? \_\_\_\_\_  
If so, tell me about them. \_\_\_\_\_
14. Pseudonym \_\_\_\_\_

## Appendix G

### Interview Questions

The research question posed for this phenomenological study is “What is the lived experience of older adults with visual impairments and their integration into social and recreational activities in the LTC setting?” The main or grand tour question for this study is “can you please describe the effect of your visual impairment here at (LTC facility)?” “The goal of this question will be to allow the lived experience of the participants to reveal themselves and to identify any possible barriers and adaptations or facilitators into social and recreational programs within their setting. Follow-up questions may include the following:

- How might your visual impairment hold you back and prevent you from socially interacting with others?
- How do you spend most of your time?
- What types of social and recreational activities do you or would you like to participate in here (at the LTC facility)?
- Tell me about living here. Have you had to adapt to the environment/ living space because of your vision impairment?
- How has nursing and other members of the healthcare team helped you in adjusting to the environment?
- What is the one thing that you miss most about your recreational/social life as a result of your vision impairment?
- What has been done to help you participate in social/recreational activities here at the LTC facility?
- What would you like to be done so that you may participate more fully in

social/recreational activities?

- How has the Covid-19 pandemic affected your participation in social/recreational activities?



## Appendix H

### Transcriptionist Confidentiality Form

**This document is to verify that each transcriptionist hired for this study will agree to confidentiality prior to and throughout the transcription process.**

**I am aware that the following information contained in each study interview transcript belongs to the researcher of this study, Julie Conboy Russo MS, RN and that the privacy and confidentiality will be maintained by me during and after my work in transcribing these interviews. I will destroy all data at the behest of the researcher at the end of the study.**

**Researcher signature:** \_\_\_\_\_

**Transcriptionist signature:** \_\_\_\_\_

**Transcriptionist (please print):** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Appendix I

### Interview Script

The research question to be investigated will be “What is the lived experience of older adults with visual impairments and their integration into social and recreational activities in the long-term care setting?”

*Thank you for agreeing to answer these few questions I’ve developed for my research study on the lived experience of older adults with visual impairments and your integration into social and recreational activities in the long-term care setting.” As you probably know I would like to ask a few specific questions about your experience and a few more open-ended questions. I will be recording this interview and will transcribe it, but your identity will not be shared when I compile responses from other participants who are in the study. If you would like to receive a copy of your transcribed interview, I will ask you to provide me with an address where I can send it. Can I assume that you know this is for my research study?*

I will ask you some basic demographic questions such as your age, marital status, and vision impairment. The research question posed for this phenomenological study is “What is the lived experience of older adults with visual impairments in the long-term care setting? The main or grand tour question for this study is “can you describe the effect of your visual impairment here at (LTC facility)?” The goal of these questions will be to allow the lived experience of the participants to reveal themselves and to identify any possible barriers and adaptations or facilitators into social and recreational programs within their setting.

Follow-up questions may include the following:

- How might your visual impairment hold you back and prevent you from socially interacting with others?

- How do you spend most of your time?
- What types of social and recreational activities do you or would you like to participate in here (at the LTC facility)?
- Tell me about living here. Have you had to adapt to the environment/ living space because of your vision impairment?
- How has nursing and other members of the healthcare team helped you in adjusting to the environment?
- What is the one thing that you miss most about your recreational/social life as a result of your vision impairment?
- What has been done to help you participate in social/recreational activities here at the LTC facility?
- What would you like to be done so that you may participate more fully in social/recreational activities?
- How has the Covid-19 pandemic affected your participation in social/recreational activities?

Is there anything you would like to add or comment on that was not brought up before and think I should know about? I thank you for sharing your experience with me. Here is my contact information if you need to reach me. I will contact you after I have transcribed the interview so that you may read it, or I will read it to you to let me know if that the information has been accurately recorded.