

## **ABSTRACT**

DERN, LIANA BETH. Children's Perceptions of Aging and Older Adults: Grandchildren of North Carolina Senior Games Participants. (Under the direction of Jason Bocarro.)

The number of grandparents in the United States is estimated to be 56 million due to increased life span and the increasing older population. Grandparents have the potential to positively influence their grandchildren in a variety of ways. Therefore, the purpose of this study was to understand how grandchildren of North Carolina Senior Games participants perceived older adults and the aging process. The study was based on the contact hypothesis and social cognitive theory. To understand children's perceptions of aging and older adults and of their grandparents, semi-structured interviews along with drawing and sentence completion activities were completed with 12 children ages 7 through 11 years whose grandparents were North Carolina Senior Games participants. These methods were used to gain a deeper understanding of how children perceived older adults. Data were analyzed using MAXQDA software. Three themes emerged through the detailed accounts provided by children that generated patterns and principles that represented the data. These themes included: children's perceptions of older adults, building relationships with their grandparents through leisure activities, and grandparents serving as aging role models. More specifically, children perceived older adults primarily in terms of personality, physical characteristics, and activities. Children participated in leisure activities with their grandparents helped build supportive and close relationships and children perceived their own aging as similar to their grandparent's current lifestyle. The discussion centers on how the family, community, media, and education can impact children's perceptions of aging and

older adults. The findings from the study further support the need for community based intergenerational programs that foster meaningful relationships between generations through the joint participation in physical and leisure activities.

Children's Perceptions of Aging and Older Adults: Grandchildren of North Carolina Senior  
Games Participants

by  
Liana Beth Dern

A thesis submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the Degree of  
Master of Science

Parks, Recreation and Tourism Management

Raleigh, North Carolina

2011

APPROVED BY:

---

Dr. Karla Henderson

---

Dr. Beth Wilson

---

Dr. Jason Bocarro  
Chair of Advisory Committee

## **BIOGRAPHY**

Liana Beth Dern was born and raised in Bethesda, MD, a suburb of Washington, D.C. Her mother, Elizabeth, and her father, Robert grew up in the metropolitan D.C. area. She graduated from Walt Whitman High School in 2001 and obtained her B.S. in Elementary and Kindergarten Education from The Pennsylvania State University in 2005. After graduation, Liana began her teaching career in Castro Valley, CA located in San Francisco's Bay Area. Liana was an elementary school teacher for four years, teaching 4<sup>th</sup> and 5<sup>th</sup> grade, and then returned to education to pursue her M.S. in Parks, Recreation, and Tourism Management at North Carolina State University. During her graduate work, she also worked at North Carolina Senior Games and combined her passion for youth development and her new interest in Senior Games to conduct research.

## **ACKNOWLEDGEMENTS**

I would like to thank North Carolina Senior Games for allowing me the opportunity to conduct this research. I am thankful for the guidance, support, and assistance they provided me throughout the research process. I would also like to thank my committee and Dr. Dorothy Anderson for continually challenging me and guiding me in creating a product that I am happy to say I am proud of.

## TABLE OF CONTENTS

LIST OF TABLES .....	vi
LIST OF FIGURES .....	vii
CHAPTER ONE: INTRODUCTION.....	1
Purpose .....	5
CHAPTER TWO: LITERATURE REVIEW .....	6
Guiding Frameworks.....	6
Definitions.....	9
Perceptions of Aging and Older Adults .....	11
The Older Population in History .....	11
Negative Perceptions toward Aging and Older Adults .....	13
Neutral, Mixed, or Positive Perceptions Towards Aging and Older Adults .....	16
Influences .....	21
Intergenerational Contact .....	21
Family .....	24
Media/Literature and other Societal Factors .....	26
Education/Knowledge .....	29
Effects of Ageism.....	31
Aging Self-Stereotypes.....	33
Summary .....	34
CHAPTER 3: METHODS.....	35
Study Design .....	35
Procedure.....	46
Data Analysis .....	48
CHAPTER 4: RESULTS.....	51
Drawings about typical older adult .....	51
Themes .....	57
Range of Perceptions of Older Adults.....	58
Building Relationships with Grandparents through Leisure Activities.....	84
Grandparents as Aging Role Models.....	90
Summary of Chapter .....	96
CHAPTER 5: DISCUSSION.....	97

Summary of Findings .....	98
Range of Perceptions of Older Adults .....	99
Building Relationships with Grandparents through Leisure Activities.....	104
Grandparents as Aging Role Models.....	106
Implications .....	107
Families .....	108
Community .....	109
Media.....	111
Education.....	112
Strengths and Limitations/Future Research .....	113
Final Conclusions .....	116
REFERENCES .....	117
APPENDICES .....	129
APPENDIX A: Formal Interview Guide .....	130
APPENDIX B: IRB Approval Letter .....	132
APPENDIX C: Email sent by North Carolina Senior Games to recruit participants .....	133
APPENDIX D: Parental Consent Form -Youth Interviews .....	134
APPENDIX E: Parent Letter to Accompany Interview Consent Form .....	135
APPENDIX F: Assent Form- Children Interviews .....	136
APPENDIX G: Grandparent Consent Form -Youth Interviews .....	137
APPENDIX H: Grandparent Letter to Accompany Interview Consent Form .....	138

## LIST OF TABLES

### CHAPTER THREE

Table 3.1 Participant Characteristics.....	40
--	----

### CHAPTER FOUR

Table 4.1 Summary of Drawings.....	52
------------------------------------	----

## LIST OF FIGURES

### CHAPTER TWO

Figure 2.1	Conceptual Model Linking Terms Used in Study.....	9
------------	---	---

### CHAPTER FOUR

Figure 4.1	Michelle’s Drawing of a Typical Older Adult.....	54
Figure 4.2	Jenny’s Drawing of a Typical Older Adult.....	60
Figure 4.3	Hannah’s Drawing of a Typical Older Adult.....	66
Figure 4.4	Noah’s Drawing of a Typical Older Adult.....	67
Figure 4.5	Chloe’s Drawing of a Typical Older Adult.....	68
Figure 4.6	Nicole’s Drawing of a Typical Older Adult.....	71
Figure 4.7	Caitlin’s Drawing of a Typical Older Adult.....	72
Figure 4.8	Jacob’s Drawing of a Typical Older Adult.....	75
Figure 4.9	Chris’ Drawing of a Typical Older Adult.....	77
Figure 4.10	Isaac’s Drawing of a Typical Older Adult.....	78
Figure 4.11	Justin’s Drawing of a Typical Older Adult.....	83
Figure 4.12	Timothy’s Drawing of a Typical Older Adult.....	95

## CHAPTER ONE: INTRODUCTION

By 2030 an estimated 71 million Americans aged 65 years and older will account for about 20% of the US population (Centers for Disease Control and Prevention (CDC), 2007). In the next 25 years, the population of Americans aged 65 years and older will double due to improved medical care and prevention efforts. Thus, older adults will make up the largest sector of the population in industrialized societies (Hernandez & Gonzalez, 2008). Many of these older adults will at some point take on the role of grandparent. Currently, there are approximately 56 million grandparents in the United States (Barnett, Scaramella, Neppi, Ontai, & Conger, 2010). The importance of the grandparent's role in the lives of grandchildren is worth considering. Grandparents have the potential to influence grandchildren socially and emotionally, to pass down values, and to influence children's perceptions of aging. Grandparents are often the first older adults that children are exposed to and learn from (Attar-Schwartz, Tan, & Buchanan, 2009).

What is concerning is that little information about aging is shared within schools, communities, and sometimes even homes. Hernandez and Gonzalez (2008) argued that with little accurate information made available, younger populations will hold negative perceptions about older adults compared to other societies, who see the older adults as a resource. With numbers of older adults increasing and living longer, researchers need to examine the attitudes and perceptions of younger people toward older adults (Newman, Faux, & Larimer, 1997). Those perceptions may influence behaviors towards older adults (Mitchell, Wilson, Revicki, & Parker, 1985).

In 1900 the life expectancy of a typical American was 47 years old. However, by 2001 American that life expectancy had increased to 77 years (CDC, 2007). While the population of older adults and the average life expectancy are increasing, there is also a prevalence of physically inactive older adults. In 2009, over 50% of adults aged 55 years and older were not meeting physical activity recommendations for optimal health (i.e. 30+ minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20+ minutes three or more days per week) (CDC, 2009). Nationally, over 30% of the older population had no leisure time physical activity in the past month, a statistic that holds true for the state of North Carolina as well (CDC, 2007).

Children's attitudes and perceptions of older adults may develop early in life (Seefeldt, Jantz, Galper, & Serock, 1981), and it has been suggested that children rely on these stereotypes in their perceptions of aging because they have few contacts with older people (Davis & Westbrook, 1991). With large numbers of inactive older adults and children looking to older adults as role models and a frame of references, one might consider what influence this inactivity has on children's perceptions of aging and older adults. Due to increased life span and increasing older population, older adults can serve as role models helping children develop their attitudes and perceptions about aging (Page, Olivas, Driver, & Driver, 1981). Grandparents are becoming increasingly important in the lives of their grandchildren and with enhanced life span, opportunities for long-lasting and meaningful relationships are more likely (Block, 2000; Mueller & Elder, 2003; Silverstein & Parrot, 1997). Grandparents provide support for many children and the closeness of grandparents and grandchildren has positive ramifications (Attar-Schwartz et al., 2009) and resulted in

researchers wanting to learn more about the different aspects of the grandparent and grandchild relationship and its potential impacts. Perhaps these relationships could help foster favorable attitudes and perceptions of older adults and aging (Newman et al., 1997).

Aging has been perceived in society as a medical and social problem because of stereotypic views of dependency, disability, and disengagement. Ageist attitudes and negative aging stereotypes were once reflected in the types of leisure and activities suggested for older populations (Dionigi, 2006). Common negative stereotypes held by children and other age groups about older adults have included undesirable traits such as irritated and angry, lonely, bored, and inactive (Palmore, 1999). As a result, leisure activities suggested to older adults were less strenuous such as crafts, bridge, and BINGO. Research does show that today older adults are more physically active and in better physical and mental health than in previous generations (Robinson & Umphrey, 2006), but people over 60 years of age are still the most sedentary group of the U.S. population (Johnson, Hodges, & Keller, 2006). Further research suggests that older adults are the age group that is least likely to engage in preventive health behaviors, including physical activity, even though such behaviors benefit individuals throughout their lifespan (Levy & Myers, 2004).

However, a positive aging discourse has emerged. For example, Dionigi (2006) pointed out that research, theories, images, or attitudes have resulted in society “celebrating later life as a period for enjoyment, good health, independence, vitality, exploration, challenge, productivity, creativity, growth, and development rather than solely focused upon decline, disengagement, and hopelessness” (p.182). Others see successful aging as including three components: low probability of disease and disease-related disability, high cognitive

and physical functional capacity, and active engagement with life (Rowe & Kahn, 1997). The CDC reports that being physically active contributes substantially to healthy aging by preventing or controlling high blood pressure, depression, obesity, and diabetes. Typically, however for older adults become less active as they age (CDC, 2011; CDC, 2007). Therefore, it could be argued that participants of North Carolina Senior Games, a health promotion and education program for older adults, are taking part in successful and positive aging. By being a part of the organization, participants are demonstrating the presence of functional levels of physical capabilities and being actively involved within the community.

Furthermore, older people who compete in sport could be seen as resisting negative stereotypes associated with aging, and may be viewed as atypical (Dionigi, 2006). Research regarding racial stereotyping among children suggests that exposure to atypical racial stereotypes resulted in lower degrees of racial stereotyping (Bigler & Liben, 1993). This exposure could have implications for children exposed regularly to older adults who display atypical behavior and actions. Seefeldt, Jantz, Galper, and Serock (1977) suggested that experiences with active, healthy older people might help to eliminate children's stereotyping of physical and behavioral characteristics of age. By having a "frame of reference" (Bekker & Taylor, 1966) of a physically active grandparent, children may be influenced by this reference in the way they perceive a typical older adult.

Understanding how children who frequently interact with atypical older adults perceive older adults may provide insight into how the behavior of older adults can influence young children's perceptions. Therefore, participants of North Carolina Senior Games may

be receiving health benefits from their participation as well as impacting the ways in which young children perceive them and their peers.

## **Purpose**

The purpose of the study was to understand children's perceptions of aging and older adults who have grandparents that are participants of North Carolina Senior Games. Examining grandparent and grandchild relationships in the context of physical activity may provide insight into how those relationships can influence children's perceptions of aging and older adults.

A series of activities (see Appendix A) designed to understand children's perceptions of aging and older adults were used. For the purposes of this study, older adults were defined as people ages 55 years and older. Definitions of older adults range in the literature. These definitions include 50 years and older (American Association of Retired Persons, 2011), 62 years and older (Social Security Administration, 2011), or even 65 years and older (CDC, 2011). This study defined older adults as ages 55 years and older because of the minimum age requirement for North Carolina Senior Games.

Children, ages 7 through 13 years whose grandparents were participants of physically active components of North Carolina Senior Games, were invited to complete the activities though the highest age of participants was 11 years. Study findings could provide insight on children's perceptions of aging and older adults who have the presence of a physically active older adult in their lives. This information could help professionals plan and develop programs for both older adults and youth that encourage the formation of positive attitudes, stereotypes, and perceptions and that increase interaction among generations.

## **CHAPTER TWO: LITERATURE REVIEW**

The objective of this literature review is to provide an overview of the terms used in the study, to highlight previous research and findings related to the study, and to provide further rationale and importance for conducting the study.

The literature examining children's views on older adults and aging is somewhat limited. The topic, however, is important because if children hold negative aging perceptions, then those attitudes and stereotypes have potential to affect the population for whom the perceptions are targeted towards (Ory, Kinney, Hoffman, Hawkins, Sanner, & Mockenhaupt, 2003). Education, intergenerational contact, media, and family are the main factors influencing children's perceptions of older adults and aging (Page et al., 1981). Although researchers have explored children's views on older adults and aging, findings have been contradictory. Over time, children have displayed a wide range of perceptions about older adults and aging (Newman et al., 1997) although more recent research suggests that children's perceptions of aging and older adults are more neutral or positive than previously thought (Hall & Batey, 2008; Lichtenstein et al., 2005; McGuinn & Mosher-Ashley, 2002).

### **Guiding Frameworks**

Gordon Allport's contact hypothesis and Albert Bandura's social cognitive theory were the theoretical frameworks for study. The two theories served as models for understanding children's perceptions of aging in the context of physical activity and the grandparent/grandchild relationship. The contact hypothesis supports the idea that childrens'

interaction with a member of an outgroup results in change of attitude towards that outgroup (Harwood, Hewstone, Paolini, & Voci, 2005). The social cognitive theory suggests that childrens' social interactions, experiences, and other environmental influences shape their thoughts and actions (Bandura, 1986).

The contact hypothesis assumes that positive contact between people with differences will influence changes in attitudes toward one another and that expectations about behaviors of other group members are altered or confirmed based on interactions (Devine & O'Brien, 2007). This theoretical framework is particularly relevant because children in the study were regularly exposed to members (their grandparents) of an out-group (older adults) who displayed what might be considered atypical behavior (participation in regular physical activity). Scholars suggest that for an attitude change to occur, contact with the out-group members (grandparents in this case) should be cooperative, in a close long-term relationship, include observation of shared values and disconfirmation of stereotypes, and should be pleasant (Harwood et al., 2005). The grandparent-grandchild pairs that were part of this study met many of these criteria. Of note though, is that for such attitude change to occur an additional criteria needs to be present. The out-group member should display categorical salience at some time during contact and that the out-group member not already be seen as atypical (Harwood et al., 2005). In other words, for children's attitudes about older people to be changed because of contact with their grandparents, grandparents should be seen as atypical. However, they also need to demonstrate traits that identify them as part of that out-group (older adults). In summary, the contact hypothesis in relation to my study, suggests that inter-age contact between children and older adults may foster more positive attitudes by

facilitating children to increase their knowledge and form more accurate perceptions of older adults (Caspi, 1984).

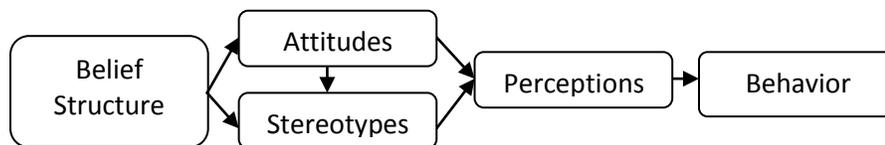
In addition to the contact hypothesis, I also reviewed social cognitive theory in relation to the current study. The social cognitive theory suggests that individuals observe others and the environment and then reflect on that in combination with their own thoughts and behaviors (Burney, 2008). Social cognitive theory further explains human functioning through the interaction of behavior, cognitive factors, and environmental events (Bandura, 1986). According to Bandura (1986), most human behavior is learned through observation and people form rules of behavior that then serve as a guide for future action. Based on the social cognitive theory, in attempting to make sense of others, perceivers construct and use categorical representations (stereotypes) to streamline the person perception process (Macrae & Bodenhausen, 2001). Macrae and Bodenhausen suggested that people formulate perceptions through a combination of their own personal beliefs and experiences and the social influences around them. These social influences are messages and attitudes that are prevalent in society and are the basis for stereotype formation. In relation to my study, children's beliefs about aging, their experiences with older adults including their own aging family members, as well as stereotypes they have formed, influence their perceptions of older adults. Children's attitudes are based on value systems set early by their families but are modified through interactions with people, influences from institutions, and information from the media (Page et al., 1981).

Children's perceptions of older adults were examined in this study. Terms in literature that have been used interchangeably with perceptions are impressions, stereotypes,

attributions, traits, attitudes, beliefs, and myths (Lichtenstein et al., 2005). An overview of terms that are used in this study follows.

## Definitions

The primary objective of this study was to understand children's perceptions of aging and older adults. A definition of perception was necessary to understand the types that children held. Perception is the thought process individuals have that influences their actions and behaviors (Mitchell et al., 1985). Attitudes and stereotypes are components of perceptions on beliefs (Hoe & Davidson, 2002). Many terms have been used by researchers to understand how children perceive older adults. In many of these studies (e.g., Davidovic, Djordjevic, Erceg, Despotovic, & Milosevic, 2007; Falchikov, 1990; Lichtenstein et al., 2005; Marks, Newman, & Onawola, 1985; Page et al., 1981), the measured outcomes were similar although varying terms were used to describe those outcomes. An analysis of the terms used in studies pertaining to this topic follows, with rationale for selection of terms used in this study.



*Figure 2.1: Conceptual model linking terms used in study.*

Attitudes, which influence perceptions, evolve and develop based on cultural and familial value systems and are reinforced by experiences. Attitudes are considered thinking and feeling emotions and are based on beliefs (Gilbert & Ricketts, 2008). Because of their basis in cultural and familial systems, attitudes are a predisposition to respond in a certain way, sometimes positive and sometimes negative, to a person or thing (Hoe & Davidson,

2002). Attitudes are evaluative and typically are consistently favorable or unfavorable towards a specific object or thing (Fishbien & Ajzen, 1975). These attitudes influence perceptions, which then influence behavior (Newman et al., 1997).

While attitudes generally describe single entities, stereotypes are beliefs that describe parts of a category (Hoe & Davidson, 2002). Stereotypes are fixed, simplified characterizations of groups of humans, and are used frequently because they simplify the world (Lichenstein et al., 2005). Stereotypes are used in everyday life (Penny & Haddock, 2007), and unfortunately are seldom neutral (Lichenstein et al., 2005). In reference to the current study, a child may hold a specific attitude towards their grandparent. However, a stereotype of a different nature may be held towards older adults in general. The target stereotype addressed in the study was ageism. Robert Butler (1989) first coined the term and described it as similar to other forms of bigotry such as racism or sexism. Initially, the term referred to discrimination against people because of their old age, but has since been broadened to include behavior against or in favor of people of a certain age group (Ory et al., 2003).

Perceptions are based on attitudes and stereotypes held by individuals. Perceptions are behavioral manifestations of attitudes and stereotypes combined (Mitchell et al., 1985). Macrae and Bodenhausen (2001) argued that people's perceptions are shaped and guided by their knowledge and pre-existing beliefs about the social world. Their attitude toward individuals and categorical representations (stereotypes) work together to form perceptions (Hoe & Davidson, 2002). Perception was the appropriate outcome to examine because the children in the study were exposed to societal stereotypes associated with older adults, but

may also have had attitudes toward older individuals that are unique because of their grandparent's participation in physical activity. The combination of children's attitudes and stereotypes work together to form perceptions that then influence behavior.

### **Perceptions of Aging and Older Adults**

The outlook of the aging population has changed drastically over the centuries. First, a look at how the aging population has transformed to what it is today might help to explain the ways in which people perceive older adults in society. This explanation is followed by a review of findings from previous studies that examined perceptions of aging and/or older adults follows.

#### **The Older Population in History**

Three centuries ago, less than 20% of the population lived to reach the age of 70 years which was a proportion of less than 2% of the entire population (Fischer, 1978). While the elders of these more prehistoric and primitive societies were highly valued and respected, there did come a time when they could no longer take care of themselves. Older people were seen useful for one thing, sharing wisdom and experience with younger generations. When this sharing no longer could occur, that person then became a burden (Fisher, 1978).

Economic organization and other innovations began to change the status of elderly in societies. The invention of writing meant that cultures were not reliant on older people to transmit customs, and therefore senile traits were no longer considered a burden (Fisher, 1978). This remained true until modernization changed the traditional society. Modern health technology began to increase the numbers of elderly, which allowed them to continue

in the workforce for longer periods of time. Pressures to retire forced people out of valued work and lowered their status. With modernization, came the creation of new jobs that left existing jobs less important, again pushing older adults out of work. Education also meant that the knowledge of elders was no longer prized as it had been. Rather, more people were becoming wise due to their pursuits of schooling. Finally, younger people were also moving toward cities, leaving extended families broken (Fisher, 1978).

As science became more prominent, research documented mental declines of aging which served as a basis for the fear of getting old. Only in recent decades have gerontologists had success in reversing these ideas. The workplace served as one of the major factors in the shift of thinking. With documented declines in cognitive ability and the desire to reduce costs, age discrimination was prevalent in the workplace. The perpetuation the “poor” stereotype of the elderly resulted from unemployment due to discrimination (Palmore, 1999).

After World War II, some improvements on the attitudes toward the older populations began to emerge. The older population nearly doubled during and after the war, and with a labor shortage, many of the elders could go back to work. Retirement also became more attractive because of Social Security and pension plans (Palmore, 1999). In the 1960s, several bills (i.e. the Older Americans Act and the Medicare and Medicaid bill) were passed that protected the rights of elders (Falk & Falk, 1997). The growth of organizations for the elderly such as the American Association of Retired Persons and the National Council of Senior Citizens also enabled the combat of negative aging stereotypes. While society has made great leaps in the past decades, accounts of ageist attitudes are seen in a variety of

settings including within employment, the government, health care, within families, religion, literature, education, and pop culture (Falk & Falk, 1997), and are even sometimes held among children.

Previous research examining children's perceptions of aging shows mixed findings. Earlier research indicates that children hold more negative views on aging (Falchikov, 1990; Hickey & Kalish, 1968; Page et al., 1981; Seefeldt et al., 1977), while more recent studies show that children might hold more neutral or positive views towards older adults and the aging process that previously suggested (Davidovic et al., 2007; Hall & Batey, 2008; Lichtenstein et al., 2003; Lichtenstein et al., 2005; McGuinne & Mosher-Ashley, 2002). Stereotyped views of the elderly in various studies included views that old people are typically ill, tired, not sexually interested, mentally slower, forgetful, and less able to learn new things, grouchy, withdrawn, feeling sorry for themselves, less likely to participate in activities, isolated, unproductive, and defensive (McTavish, 1971). However, more positive stereotyped views include kind (Mitchell et al., 1985), smart and intelligent, more time for family, and having more travel opportunities (McGuinn & Mosher-Ashley, 2002). A summary of negative, positive, and mixed findings from relevant literature assessing children's perceptions of aging follows.

### **Negative Perceptions toward Aging and Older Adults**

Initial research in this scope of study rationalized the formation of aging stereotypes. It was hypothesized that because old people are expected and sometimes do play a decreasingly active role in society, that these expectations begin to foster stereotypes about older people (Tuckman & Lorge, 1953). This work laid the foundation for further research.

Findings suggested that subjects viewed old age as a time of economic insecurity, loneliness, poor health, and physical and mental health declines.

To assess age-related differences of attitudes toward older adults, Hickey and Kalish (1968) compared the attitudes of third graders, junior high school students, high school students, and college students. Results indicated that a negative concept of older people might develop early in a child's life, as the younger children held similar views to those of the older participants in the study. Researchers speculated that possible explanations for such young children holding negative views might be parental influence and/or media.

With goals of understanding children's knowledge and information of aging, their feeling towards aging, and behavioral tendencies relating to older adults, children from nursery school through grade six were presented with a series of pictures of a man drawn at different stages of life and then asked questions. Findings indicated that children held negative and stereotypical attitudes towards old age and rejected older adults due to their physical and behavioral stereotypes. Children, even as young as first grade were able to correctly understand the concept of old. They were able to place pictures of an aging man in sequential order (Seefeldt et al., 1977).

A particularly innovative approach to understanding attitudes toward older people found that males were more ageist than females towards older women than older women (Hutchinson & Lilienthal, 1980). Attitudes were measured through a risk-taking assessment where subjects identified how risky they would be with the lives of older men and women as opposed to younger men and women in the presence of a life situation dilemma. The findings suggested that older females had "less to lose" than other sex-age combinations.

This study did not use children as subjects; however the finding implications could suggest such attitudes are supported by societal expectations and messages with examples in folktales where older women are portrayed worse off than men.

Interviews with children ages 3 to 11 years about their attitudes toward the elderly and the aging process revealed that attitudes were generally negative and were in line with the stereotypical attitudes of the general population. Children displayed a reluctance to get old themselves and when asked about interactions with the elderly, activities were usually passive such as watching television, playing a board game, or eating. The study confirmed that children accept negative aging stereotypes at an early age and suggested that families work towards teaching and encouraging the development of positive feelings and attitudes toward the elderly (Page et al., 1981).

Through use of drawings, Falchikov (1990) found that children held negative attitudes toward older people. Agreement among artists and the limited number of characteristics depicted in drawings indicated that children held stereotypic views of older adults. Characteristics depicted in drawings of older women included hair worn short or in a bun, a wrinkled complexion, and accessories such as walking sticks or glasses whereas drawings of younger women were seen smiling, wearing earrings and necklaces, and carrying personal stereos. Characteristics depicted in drawings of older men included being bald or having reduced amounts of hair, having wrinkles, wearing a hat, and sporting glasses and a walking stick whereas drawings of younger men were smiling, wearing t-shirts, and carrying personal stereos. The author concluded that the drawn images of older people suggested that children view aging as a time of degeneration and loneliness.

Children's perceptions of aging were studied in particular reference to physical activity competence and appropriateness (Behlendorf, MacRae, & Vos Strache, 1999). Children who were shown pictures of younger, middle aged, and older adults participating in a variety of physical activities were found to perceive older adults as less competent than middle aged and younger adults. Researchers also found that children perceived physical activities as less appropriate for older adults to perform than younger and middle aged adults.

Gross (2004) measured perceptions and beliefs about facial maturity and found that when children were presented with a series of pictures depicting human faces of various ages, children believed that very old adult faces appeared to be less cognitively able than younger faces and old and very old faces were considered less physically fit and able than younger faces. The researcher, however, did not identify what facial features led children to hold these more negative beliefs.

### **Neutral, Mixed, or Positive Perceptions Towards Aging and Older Adults**

Not all studies have found such negative outcomes in measuring children's perceptions, attitudes, and stereotypes of aging and older adults. A wealth of the literature suggests that children may hold neutral, mixed, and sometimes even positive views of aging and older adults.

To build off Tuckman and Lorge's (1953) work, Golde and Kogan (1959) measured the differences between attitudes toward old people and the broader class of "people in general" (p.355). The authors found that there are differences in attitudes toward old people compared to people in general, some more negative, but also that some are more positive. While findings suggested that not all attitudes towards older adults are unfavorable, subjects

did view their own aging negatively for fear of being dependent and to counteract this hope to be active, as “an active life would permit one to deny being old” (p.359). Subjects also did not see old people as wanting interpersonal relations with younger people.

Findings from a study measuring adolescent’s attitudes towards older persons indicated that generally positive attitudes were held by children in this age group. These findings were in contrast to other studies conducted around the same time period. Factors that may have influenced the subject’s attitudes towards older people were that the study was conducted in a rural community. Extended families in rural communities (i.e. grandparents) were a more central part of the family life than in more urban areas (Ivester & King, 1977). These adolescents may have had more contact with older adults and therefore, may have had an impact on their positive outlook towards older persons.

Similar to Seedfelt’s study (1977), Mitchell et al. (1985) presented children with black and white sketches of people representing three different age ranges (young adult, middle aged, and elderly). The sketches presented to children were used as a stimulus to measure children’s perceptions of older adults and findings suggested that children perceived older adults in terms of personality characteristics, affective relations, and physical abilities. Children perceived older adults as having more positive personality traits, but lower physical capabilities than younger adults. Whether children viewed older adults positively or negatively depended on which dimension (i.e. personality characteristics, affective relations, or physical abilities) they felt to be more important (Mitchell et al., 1985).

Children ages 8 through 10 years expressed negative and positive perceptions of aging after completing a series of activities designed to measure cognitive (knowledge),

affective (feelings), and conative (intentions) components of attitudes toward aging. Based on their knowledge, children had a negative perception of the aging process, but positive feelings and behavioral intentions toward older people (Marks et al., 1985).

Attempting to overcome shortcomings of methodology of previous researchers, Braithwaite (1986) found evidence of both positive and negative age stereotyping. High school students perceived older adults as more concerned for others and more responsible than younger people, but had lower expectations regarding the elderly and their ability to perform tasks.

To assess the impact of an intergenerational program, Couper, Sheehan, and Thomas (1991) used a series of activities before and after the implementation of the program. The program was geared towards elementary and high school aged students. Findings indicated that subject's attitudes toward old people and their acceptance of old people significantly improved after intergenerational program participation. Elementary school students held more positive attitudes toward older people than high school aged.

The importance of intergenerational contact was also supported in a study that assessed children's views on aging before and after their participation in a program where older adults volunteered in their elementary school classrooms. Results indicated that children had more positive perceptions of older people than they did prior to their work with older volunteers, but had negative feelings about their own aging (Newman et al., 1997).

McGuinn and Mosher-Ashley (2002) found that children did not seem to be concerned with aging and children who identified their relationship with their grandparents as close, held a much more positive attitude toward aging than those who did not report a

close relationship with their grandparents. Children reported increased knowledge, more time for family, and an opportunity to travel as the best characteristics about growing old. Poor health, disability, and memory loss were the worst characteristics about growing old.

Lichtenstein et al. (2003) found through a sentence completion activity, similar to that of this study, that children focus their perceptions of older adults on physical characteristics and changes in the ability to do physical tasks. The researchers also found that children viewed their futures more positively than the way they perceive their parent's aging or other older adults. This finding was assessed through prompts that asked children to respond to, "When I am old..." I used this in my study.

A study that built upon the previous study used children's drawings to ascertain perceptions of older adults. When asked to draw a typical older adult, results revealed that children (middle school aged) had not formed strong images regarding aging, nor held clear stereotypes of older adults. Their images were multidimensional and diverse, depicting a variety of appearances, personalities, and activities (Lichtenstein et al., 2005). Children who drew images of someone they knew were more likely to draw a positive image than children who drew a figure from their imagination. This finding further supports the need for and importance of intergenerational contact.

A study conducted in 2007 found that children have positive perceptions and attitudes about old age (Davidovic et al., 2007). Furthermore, the results indicated that children did not consider old age unattractive and that children may have more negative attitudes about the process of aging, but not of the older adults themselves. The authors noted that children's previous experience with aging came only from family members, in particular grandparents.

Older volunteers coming to schools to read or help in other ways is becoming more common. One project examined children's perceptions of older adults before and after an older volunteer had come to their classroom to read aloud a book. The pre- and post-test focused on children's perceptions of older adults. The findings of the study revealed that children who had older people involved in their lives were not as stereotypical as other studies suggest, but that their perceptions did focus on physical appearance and health (Hall & Batey, 2008).

These mixed findings have been attributed to the use of various data collection methods and differences in samples. Interchangeability of terms has also made comparing studies difficult. With a variety of terms used (e.g., views, attitudes, perceptions, stereotypes, beliefs, knowledge) there was an inconsistency among studies. Because studies were not measuring the same outcomes, comparing was difficult. It is also important to consider that many of the research studies that have found children to perceive aging and older adults negatively were conducted decades ago, like Golde and Kogan (1958). Attitudes in the general society may have become more accepting of aging and older adults than previously (Ivester & King, 1977).

My study primarily used the terms stereotypes and attitudes as a way to understand the formation of perceptions. Several data collection methods were employed in my project to use multiple means of assessing children's perceptions which allowed for a triangulated data collection process. Additionally, previous studies assessing children's perceptions of older adults have not had a constant variable relating to the older adults that children participants regularly come in contact with. What made my study unique from others

addressing similar issues was that children all had a grandparent who was physically active through North Carolina Senior Games and who they interacted with frequently. With this distinct sample, the study sought to understand how grandchildren of North Carolina Senior Games participants perceived older adults and aging.

## **Influences**

The formation of children's perceptions of older adults and the development of attitudes and stereotypes come from a variety of influences including peers, family, the amount and quality of intergenerational contact, the media, and education (Page et al., 1981). Attitudes evolve and develop based on cultural and familial value systems. They are reinforced by experiences, information, and other outside influences (Gilbert & Ricketts, 2008). By the time children enter school they may have already developed their attitudes toward older adults (Newman et al., 1997) and may have acquired these attitudes from a variety of sources. Individuals learn about aging during childhood, perhaps through formal education but most often indirectly from life, interactions, and relationships with older adults (Klein, Council, & McGuire, 2005).

### **Intergenerational Contact**

Americans are becoming more age segregated. A lack of interaction between the old and young has been cited as one factor contributing to the perpetuation of negative age stereotypes (Ory et al., 2003). Efforts to bring generations together in friendships, networks, and in recreational and fitness activities can combat aging stereotypes and create a healthier society (Ory et al., 2003). Such programs can be found nationwide and have proved

successful in bridging the gap between younger and older generations by sharing values and lifestyles, providing historical awareness, relieving tensions, and overcoming age segregation (Aday, McDuffie, & Sims, 1993). Direct contact between generations is believed to reduce and counteract common stereotypes and negative evaluations that youth have of older people (Aday et al., 1993) because “physical distance promotes psychological and social distance” (Okoye & Obikeze, 2005, p. 449).

The importance of intergenerational contact is founded on the contact hypothesis, the guiding theoretical framework for the current study, which posits that contact with individual members of an outgroup (older adults in this case) can improve intergroup attitudes and reduce prejudice (Harwood et al., 2005). Implications reported from several studies suggest that contact between the young and old may help negate negative perceptions and build positive ones. Intergenerational settings foster favorable images and attitudes of older adults by children (Coslton, Harper, & Mitchener-Colston, 1995). Statements such as, “I feel good about getting to be old, because I think that old people have a lot of neat things to share,” and, “Older people are basically the same as us; they have a hear; they have feelings, and then they depend on someone to help them when they need help,” were collected from children after participating in an intergenerational program and are evidence that meaningful contact between generations can have beneficial influences on children’s attitudes toward the elderly (Gwyther, 1991, p. 265).

Furthermore, Bousfield and Hutchinson (2010) suggested that quality of contact between generations is critical as evident by review of studies that found that children who had frequent contact with elderly classroom assistants, participated in educational activities

with older adults, and self-reported contact with older adults held more positive attitudes towards the older population. Labouvie-Vief and Baltes (1976) argued that intergenerational programs using advantaged groups of older people were ideal because of the successful aging model being portrayed. This finding was supported by Couper et al. (1991) where children had more positive attitudes toward older adults after participation in an intergenerational program where the sample of older adults represented a healthy and independent population. When an intergenerational program that paired adolescents with senior partners was evaluated, findings suggested that subjects were positively influenced by their older partner's humor and high level of activity (Aday et al., 1993).

Of important note, though, is that intervention goals included the development of an intimate relationship among participants. The types of relationships children had with older adults also influenced perceptions of aging. Children who had meaningful interactions with older adults learned skills and positive attitudes. Such frequent positive intergenerational contact can also lead to more willingness to engage in future contact with older people (Hutchinson, Fox, Laas, Matharu, & Urzi, 2010). Children who have less exposure to older adults are more likely to hold stereotypes and wrong ideas about the aging process (Gilbert & Ricketts, 2008).

Research has shown the benefit of intergenerational programs for both children and for elderly. Daily contact between children and old people was important for breaking prejudices (Davidovic et al., 2007). Other benefits of intergenerational contact include increasing positive images of older adults and an increased sense of well-being for older adults (Davis, Vetere, Francis, Gibbs, & Howard, 2008).

## **Family**

In addition to such programs, encouragement of frequent interaction among grandparents and grandchildren is important because many children learn about older adults from their grandparents (Newman et al., 1997). The grandparent/grandchild relationship is often one of the first close relationships that children have with older adults (Silverstein & Parrott, 1997).

Grandparents play a critical role in the lives of grandchildren (Attar-Schwartz et al., 2009). The roles of grandparents in the lives of grandchildren vary but may include positive associations such as mentor, role model, or nurturer, although there is no single role for grandparents (Block, 2000). Both grandparents and grandchildren benefit from a strong relationship. Involvement and closeness with grandparents has been associated with reduced adjustment difficulties among children (Attar-Schwartz et al., 2009) and increased psychosocial development (Bernal & de la Fuente Anuncibay, 2008). Highly involved grandparenting provides support for parents and grandchildren and is associated with satisfaction, well-being, and activity and engagement for grandparents (Barnett et al., 2010). Grandparents are also typically seen as a source of unconditional love and consolation for grandchildren, as well as transmitters of values and knowledge (Bernal & de la Furete Anuncibay, 2008).

What grandparents do with their grandchildren matters in the significance the child places on the relationship (Attar-Schwartz et al., 2009). Bernal and de la Fuente Anuncibay (2008) suggested that when activities take place within a grandparent and grandchild relationship, the relationship is strengthened. Block (2000) noted that grandparents and

grandchildren typically participate in a wide range of activities with one another, with the most frequent forms including phone conversations and personal visits and the least frequent being recreational activities and vacations. This finding was further supported by Bernal and de la Fuente Anuncibay who reported that the most frequent activities engaged in among grandparents and grandchildren include explaining things to grandchildren, playing, talking on the phone, going for walks, or picking grandchildren up from school. The context in which the relationship is embedded is important for the development of supportive relationships, and joint activity between grandparents and grandchildren supports emotional closeness and support for one another in the relationship (Attar-Schwartz et al., 2009). While the number of grandparents is increasing and documented evidence shows the importance of such relationships, the role of the grandparent has become less prominent because of the shift in the profile of and available opportunities for grandparents (Block, 2000), such as North Carolina Senior Games. Grandparents are now younger, healthier, and more socially active than in previous generations and have more opportunities to participate in social and recreational activities (Block, 2000).

The importance of intergenerational contact between grandparents and grandchildren is supported by a study conducted by Lichtenstein et al. (2005). Based on drawings of older adults by children, children who drew someone they knew or a grandparent were more likely to draw a positive image than children who drew someone they made up. Grandparents have potential to significantly impact their grandchildren (Beland & Mills, 2001). This intergenerational linkage can have implications for how children perceive both their grandparents and other older adults, particularly because many children's direct experience

with older adults tends to come through contact with their own grandparents (Hoffman, 1979). McGuinn and Mosher-Ashley (2002) further supported this relationship by suggesting a close relationship with a grandparent contributes to more positive attitudes and a decreased fear of older adults. Silverstein and Parrott (1997) also found that when people had greater contact with their grandparents as children, they were more accepting of public policy that supported older people, whereas those with little contact with grandparents were more opposed to initiatives supporting the elderly.

In addition to grandparents, parents and other adult family members can serve as an initial source of aging information for young children (Gilbert & Ricketts, 2008). In growing older, the child's interests and feelings extend outside the family circle, but family continues to be the most important influence (Lichtenstein et al., 2005). Parents play a key role in children's developing perceptions of older adults. King and Elder (1995) implied that both positive and negative feelings and attitudes between parents and grandparents are transmitted and experienced by children and parent's serve as mediators between children and grandparents.

### **Media/Literature and other Societal Factors**

As children near adolescence, media influences such as movies and television become more prevalent and become outlets for children to obtain information about older people. Research shows that older adults are underrepresented in media compared to the actual population of older adults in the United States (Robinson, Callister, & Magoffin, 2009). In addition to underrepresentation, older adults are often portrayed in ways that reinforce stereotypes that often already exist. "Feeble, ineffective, helpless, and irrelevant" were

words used to describe older adults in print and on television by the U.S. Senate Special Committee on Aging (Ory et al., 2003, p.166).

Disney films have produced numerous animated films specifically targeted towards young children. Robinson, Callister, Magoffin, and Moore (2007) researched how older adults are portrayed in these Disney films because of the frequency of which young children view them and their popularity. The researchers found that older characters are underrepresented in Disney films, although not nearly as in the past, and that few older characters play major roles. Because Disney films are so widely viewed by children of young ages, depictions of older characters could have a lasting impact on how children view older adults. Similar findings were reported in an analysis of children's animated television programs where older characters were underrepresented and though the overall portrayal of older characters was positive, a number of negative mental and physical characteristics were also present (Robinson & Anderson, 2006).

Advertising is also an outlet of media that contributes towards the development and reinforcement of ageist perceptions. Similar to television and films, researchers have found that the percentage of older adults represented in advertisements is far less than their actual population percentage (Robinson & Umphrey, 2006). Additionally, older characters in advertisements, both print and motion, are portrayed more negatively than younger characters.

Klein et al. (2005) also suggested that children learn about aging from other sources of media such as music, nursery rhymes, and greeting cards. Children's literature contributes to the development of ageist views of older adults. A content analysis of children's literature

identified the positive ways that grandparents were portrayed because researchers have suggested that negative portrayals of older adults in children's books have led to negative views of older adults (Beland & Mills, 2001). Beland and Mills suggested that literature that features positive aspects of grandparent and grandchild relationships potentially can help develop positive attitudes toward older adults. Researchers found that most children's literature positively portrayed grandparents in ways such as happy, actively involved with grandchildren, independent, able to take care of themselves, wise, and understanding (Beland & Mills, 2001). They also found that even grandparents with disabilities were still portrayed in positive ways.

The language society uses can influence the way children perceive older adults. The language used can subtly influence perceptions and prejudices (Palmore, 1999). Barbato and Feezel (1987) suggested that ageism is perpetuated through the acceptance of demeaning and derogatory terms used to refer to older people. Few positive terms, such as mature and venerable, are regularly used to describe older people and this language may have an influence on the formation and maintenance of stereotypic attitudes and views as well as affect the self-concept of the older individuals themselves. Barbato and Feezel (1987) also found that terms such as "aged" and "elderly" were rated more negatively by older populations and that they preferred being referred to as a "Mature American," "Senior Citizen," or "Retired Person." Patronizing talk, while sometimes unintentional, also contributed to ageist attitudes and behaviors (Palmore, 1999).

Humor about aging is also prevalent in interactions and how people speak with one another. Although the tellers and listeners of ageist jokes may not be conscious of their

implications, such behavior can support the prevalence of negative attitudes toward the elderly. Humor about aging can be found in birthday cards, on television, in songs, in comics, and in everyday dialogue. Examples of such humor are, “You’ve reached old age when all you exercise is caution” (p.206), and, “Time may be a great healer, but he certainly is no beauty specialist (Palmore, 1999, p.207).”

### **Education/Knowledge**

The knowledge children have of the aging process is one factor leading to perceptions of aging. A child’s understanding of old age and what contributes to longevity factors into their perceptions (Davidovic et al., 2007). This knowledge includes being able to correctly identify characteristics of older adults and properly assign ages to older adults. Formal education can also help develop knowledge of the aging process, resulting in a more positive perception (Lichtenstein et al., 2005). Over 40 years ago a need for aging education in public schools was recognized. Since then there has been an increase in efforts to incorporate gerontology education into public school curricula (Lichtenstein et al., 2001) though few teachers cover aging as an instructional objective for reasons such as being an unfamiliar topic, unavailable teaching materials, and lack of training (McGuire, Klein, & Couper, 2005).

One curriculum, *Positively Aging*, provides teachers with a set of classroom ready instructional materials geared for middle school students. The curriculum has a math and science foundation with gerontology concepts built in making the content easier for teachers to implement. Litchetstein and colleagues (2001) found that use of such curriculum did improve children’s images of older adults. Another study followed up after the

implementation of an aging curriculum in elementary school classrooms and found that compared to a control group, the curriculum was effective in fostering positive attitudes toward older adults, although it did not change children's rejection of their own aging (Seefeldt et al., 1981). Another intervention through public education resulted in children's increased self-initiated contact with older people after having received educational materials in their classroom (Davis & Westbrook, 1981). Aging curricula should include accurate information, an unbiased perception of older adult characteristics, and help children understand their view of older adults and aging (Gilbert & Ricketts, 2008).

Teaching about the aging process in public schools has barriers. Barriers include the subject being non-traditional, teachers being provided with inadequate materials, lack of teacher interest, lack of teacher training, and previous attempts to infusing aging education into classrooms being unsuccessful (Lichtenstein et al., 2001). Acknowledgement of teacher's own attitudes and stereotypical views could also be considered a barrier. Hauwiller and Jennings (1981) began with an in-service training with a focus on teacher's own personal awareness of stereotypes regarding old age before addressing any related pedagogy.

Because few formal education programs have been established in schools, children are left to learn indirectly from life and interactions and relationships with older adults and others. Changing attitudes in middle school and high school is difficult. Beyond school, aging education needs to exist in media and communities (Klein et al., 2005). Education, in combination with intergenerational contact can help children become more comfortable with older adults, dispel myths and fears of aging, change behavior toward older adults, and create less ageism. Such aging education can encourage balanced aging attitudes, promote healthy

lifestyles, prepare teenagers and young adults for an age-diverse workplace, and prepare youth to face aging of their parents and grandparents and other age related issues that may arise (Gilbert & Ricketts, 2008). If children are informed of the nature and processes of aging and how such processes affect everyone's life, this can help foster an appreciation of aging as a normal life process and then eliminate some stereotypes that are held. Education is a significant factor that can positively influence children's perceptions and attitudes (Okoye & Obikeze, 2005). Ory et al. (2003) argue that stereotypes are not fixed and can change over time. If true, improved and increased intergenerational programs and activities and formal education are ways that such stereotypes can be challenged.

### **Effects of Ageism**

Research has shown that ageism is prevalent in today's society and is seen in areas such as the workplace, healthcare, and social prejudice (Davidovic et al., 2007). Ageism has psychological and physical effects (Levy, 2003). Specific examples of how negative aging stereotypes can affect older adults are having reduced memory performance, self-efficacy, and the will to live (Ory et al., 2003). Ory and colleagues (2003) further concluded that negative aging stereotypes can have harmful effects by devaluing a person's basic worth and dignity. Ageism can occur in mild forms where those exhibiting the behavior may not realize they are stereotyping. An example of this behavior is sending a birthday card that makes fun of older people. While this may not seem harmful, such a behavior does contribute to aging stereotypes and the internalization of negative stereotypes can be viewed as an important health hazard (Ory et al., 2003).

If ageist perceptions are held towards older adults in our society, those attitudes and stereotypes may influence reactions toward older adults and thus create assumptions of others about their poor abilities (Bennett & Gaines, 2010). A recent survey of adults aged 50 years and older revealed that a majority of respondents (84%) reported one or more incidents of ageism, with more than 50% reporting multiple experiences (Palmore, 2004). Negative stereotypes have been found to raise anxiety levels, provide a false or exaggerated sense of self due to comparisons to others, accept limitations that may otherwise not be a limitation for an individual person, and sometimes to accelerate the development of a specific stereotype (i.e. illness) (Bennett & Gaines, 2010). Ageism can lead to the frustration of healthy and well older adult's desire for full participation in society or the neglect of less healthy and vulnerable older adults (Bousfield & Hutchison, 2010). When older adults were asked about societal support for physical activity, some expressed positive encouragement from society, however many reported feeling unsupported and marginalized and that they were seen as obstructions to others participating in physical activity (Jancey, Clarke, Howat, Maycock, & Lee, 2009). As George Herbert Mead stated, the "self is constituted not only by an organization of these particular individual attitudes [of others], but also by an organization of the social attitudes of the generalized other or the social group as a whole to which he belongs" (Levy, Slade, & Kasl, 2002, p. 409). In other words, the concept of one's self is partly made up of how others perceive you. Stereotypes and ageist attitudes can devalue a person's self-worth and dignity. Examples of health declines related to acceptance of negative aging stereotypes held by others are: reduced memory performance and heightened cardiovascular response to stress (Ory et al., 2003). Additionally, if ageist attitudes

perpetuate, there is potential for impacts to be seen in the workplace and within the healthcare system (Davidovic et al., 2007).

### **Aging Self-Stereotypes**

As one ages, aging stereotypes may morph into aging self-stereotypes, or older individuals' beliefs about their own aging. Levy et al. (2002) suggested that when attitudes of others are internalized, they become part of the individual's self. One might expect a person who perceives aging in a negative way to affect the way his or her process of aging is experienced (Levy et al., 2002). The current focus of my study is to understand children's perceptions who are between the ages of 7 and 13 years. The perpetuation of stereotypes, if they exist, into self-stereotypes will take place over a large number of years for these children, upwards of 50 years. It would be unrealistic to say that how children perceive older adults now will affect the way in which they perceive themselves once they reach older adulthood. However it is worth noting that if stereotypes exist and are reinforced throughout their lifetime, negative or positive self-stereotypes may develop. Aging self-stereotypes form as aging stereotypes as early as childhood and then are reinforced in adulthood. These stereotypes can operate below awareness, and in old age, aging stereotypes held as children and/or adults can become aging self-stereotypes (Levy, 2003). In addition to having consequences for the behavior directed toward older people by others, aging stereotypes have consequences for the development of older adult's self-concept (Seefeldt et al., 1977).

While the focus here has been primarily on negative internalization of aging stereotypes, positive aging stereotypes are also internalized. Such internalization of aging stereotypes can influence cognitive and physical outcomes (Levy, 2003). Furthermore, older

adults with more positive self-perceptions of aging tend to practice more preventive health behaviors such as physical activity and exercise (Levy & Myers, 2004). Such findings have implications suggesting that general beliefs can impact aging by influencing behaviors (Beck, Gillison, & Standage, 2010). Both formal and informal education along with intergenerational contact, are potential ways to prevent formation of negative aging stereotypes, which can ultimately lead to negative aging self-stereotypes.

### **Summary**

This chapter has provided an overview of the literature regarding children's perceptions of aging and older adults. Previous studies investigating children's perceptions towards aging and older adults have resulted in mixed findings. Factors influencing the development of children's perceptions include the amount and quality of intergenerational contact, family, education, media, and other societal influences. The effect of negative and positive aging stereotypes were presented along with a brief overview of aging self-stereotypes.

## **CHAPTER 3: METHODS**

The purpose of this study was to understand how grandchildren of North Carolina Senior Games participants perceived older adults and the aging process. Examining grandparent and grandchild relationships in the context of physical activity may provide insight into how those relationships have an impact on children's perceptions of aging. These topics were explored through a series of activities conducted with children between the ages of 7 and 11 years who have grandparents that are participants of North Carolina Senior Games.

### **Study Design**

Twelve interviews with children took place during the fall of 2010. Interviews were held at children's homes or at their grandparent's homes. Interviews took place in Cary, Morehead City, and in Raleigh, North Carolina. These regions were purposively selected for the study due to the researcher's proximity and accessibility to them. Each session was audio taped and typically lasted between 30 and 45 minutes. This study was approved by the North Carolina State University Institutional Review Board (see Appendix B). Participant ages ranged from 7 to 11 years of age with a mean age of 9 years. Children up to the age of 13 years were invited to participate in the study. However, the highest age of interested participants was 11 years.

Children between the ages of 7 and 11 participated which was consistent with their developmental abilities at those ages. According to Erikson's stages of psychosocial development, this age group is more aware of themselves as individuals, can form moral values, is able to recognize cultural and individual differences, and can begin understanding

cause and effect (Palombo, Bendicson, & Koch, 2009). Children between these ages, particularly as age increases, are able to provide more detail and accurate descriptions (Deforge & Zehnder, 2001). Because of the nature of semi-structured interview questions and questions following up the two task-based methods, it was important for children to be able to add detail to their descriptions and elaborate on their thoughts when probed.

Research shows that by 8 years children have well defined notions about older adults (Gilbert & Ricketts, 2008). By adolescence, ageist attitudes are difficult to change (Mcguire et al., 2005). This 8-11 years range was selected because it is the time where the development of stereotypes and perceptions take place (Hoe & Davidson, 2002). Children are at a point where developmentally and maturationally they are ready to understand age differentiations (Davis & Westbrook, 1981).

Previous studies examining children's perceptions of aging and older adults have also used a similar age group. For example, a study using both drawing and sentence completion used a sample of children in middle school (Lichtenstein et al., 2003). A study that had children look at pictures rather than draw themselves used a sample of children in the age range of 3 years to 11 years (Seefeldt et al., 1977). Another study sampled children ages 5 through 13 years in a similar process where subjects looked at pictures of people of various ages and answered a series of questions (Mitchell et al., 1985). Furthermore, stereotypes are learned early in life before children have the ability to evaluate or question their validity. During middle childhood, increases in cognitive ability and flexibility allow for personal evaluations and beliefs to form that may stray from dominant social stereotypes (Augoustinos

& Rosewarne, 2001). Understanding perceptions at this stage of a child's life could be critical to promoting the development of positive stereotypes, attitudes, and perceptions.

A second criterion for children to be selected to the study was having a grandparent who was an active participant of North Carolina Senior Games. North Carolina Senior Games was founded in 1983 and is affiliated with the North Carolina Division of Aging and Adult Services, parks and recreation organizations, and the aging network in NC. North Carolina Senior Games recognizes that the age at which someone becomes a "senior" varies. However, the organization established 55 years as the minimum age for participation when it was founded. North Carolina Senior Games participation begins at the local level. Fifty four local games are offered that serve all 100 counties of North Carolina. Each spring, Local Senior Games host the events where participants can compete and eventually qualify for State Finals. Qualified participants may travel to Raleigh in the fall to compete in this statewide event. Every other year, State Finals participants have the opportunity to qualify for National Games, held in a different location every time offered. For participation in the study, grandparents of the children were participants of local games, State Finals, and/or National Games during the past year.

Official sports and events of North Carolina Senior Games include field events, individual activities, swimming, tournament sports, track, team sports, and SilverArts. Discus throw, shot put, standing long jump, and running long jump compromise field events. Individual activities include archery, basketball shooting, bowling, cycling, football throw, golf, softball throw, and spin casting. The swim meet consists of 15 different swimming events and the track meet consists of nine different track events. A basketball tournament

and softball tournament are the two team sports offered by North Carolina Senior Games. SilverArts is a component of the organization that unites the athlete and artist by recognizing the similarities of both. SilverArts includes cheerleading, visual, heritage, literary, and performing art and talents are presented at State Finals in the form of a showcase. Grandparents had to be participants in at least one physically active component of the organization's events (North Carolina Senior Games, 2011). North Carolina Senior Games participants have attributed their involvement to being more physically active and had perceived health impacts (Cardenas, Henderson, & Wilson, 2009).

A final criterion for participant selection was based on the relationship between the grandparents and grandchildren. Grandparents and grandchildren had a relationship where they saw each other regularly but did not live together. For the purposes of this study, regular contact was typically on a monthly basis or more. Contact between the grandchild and the grandparent was broader and more extensive than only phone and email contact. Contact via technological means of exchange, such as telephone and email, does not adequately support the grandparent-grandchild relationship (Davis et al., 2008). Because of the frequent contact that children have with their grandparents, it is likely that they live nearby one another and grandparents who live within close proximity of their grandchildren may experience enhanced or strengthened relationships because of the opportunity for increased visitation (King & Elder, 1995). Grandparents were also not the primary caregivers of grandchildren. Including grandparent caregivers into the sample would introduce a number of other variables such as mental health problems and additional stress (Kicklighter et al., 2007).

Table 3.1 outlines the characteristics of participants in the study. In interpreting the results, it was helpful to understand the context of the relationship between the grandchild and grandparent. Based on the criteria for participation, grandparents and grandchildren saw each other at least on a monthly basis, but after conversations with participants, it was clear that interactions occurred more often than that, sometimes on a weekly basis. Within the group of participants were five sets of siblings. While there were several opportunities for the researcher to work with more than two children from the same family, it was decided that only two children from each family would be interviewed to not impart too much influence from one single family within the data. I felt that having two children from a family would be suitable because while the children are influenced by and exposed to the same people, the children are unique from one another and could potentially interpret events and people differently. Pseudonyms were randomly chosen by the researcher.

Table 3.1

*Characteristics of Participants*

<b>Name</b>	<b>Age</b>	<b>Sex</b>	<b>Age of Grandparent</b>	<b>Sex of Grandparent</b>	<b>Sport Played by Grandparent</b>
<b>Michelle</b>	9	F	65	F	Track events
<b>Isaac</b>	9	M	59	F	Cycling
<b>Chloe</b>	7	F	59	F	Swimming events Cycling
<b>Caitlin</b>	8	F	70	F	Swimming events
<b>Noah</b>	7	M	68	M	Track and Field events
<b>Nicole</b>	10	F	76	F	Swimming events
<b>Jacob</b>	11	M	65	M	Tennis
<b>Timothy</b>	9	M	65	M	Tennis
<b>Justin</b>	11	M	73	M	Basketball
<b>Chris</b>	10	M	70	F	Swimming events
<b>Hannah</b>	9	F	73	M	Basketball
<b>Jenny</b>	8	F	76	F	Swimming events

Qualitative research methods were used to gain a deeper understanding of how children perceive older adults which were attained through detailed accounts provided by participants. This approach provided a description of how children think and understand their world, allowing insight into their perceptions and factors that influence those perceptions (Jingxiong et al., 2007). The inductive reasoning approach was ideal for this study because the researcher could gather specific and detailed information from participants that then helped to generate patterns and principles which represented all the data (Riddick & Russell, 2008).

Three primary means of data collection took place during sessions with children: a drawing activity, a sentence completion exercise, and a semi-structured interview. The

multiple forms of data collection allowed for triangulation of the data, increasing the validity and reliability (Hall & Batey, 2008). Each of these methods have been used in studies examining children's perceptions of aging (Hall & Batey, 2008; Lichtenstein et al., 2005; Lichtenstein et al., 2003). Methods were appropriate for use with this age range because they were more suitable for children's competencies and skills (Punch, 2002). A combination of traditional research methods (i.e., interview) were combined with task-based methods (i.e., drawing activity and sentence completion) to allow the children to be treated in the same way as adults, while also allowing children to feel more comfortable with researcher by using techniques centered around an activity that is familiar to them (Punch, 2002). The viability of each of these methods is described below.

*Drawing* allows children to share their internal world of experiences (Lichtenstein et al., 2005). The drawings reflect their interpersonal development and how they respond to the world around them, their relationships with family members, friends, and others in the community. Such a process has specifically been used in at least three studies exploring children's attitudes about elders (e.g., Lichtenstein et al., 2005; Mitchell et al., 1985; Seedfeldt et al., 1977). Such studies have had children draw or examine pictures and then answer a series of questions verbally or respond to a written questionnaire (Lichtenstein et al., 2005). The use of drawings in research with children has several benefits. Children in the age group of 7 to 11 are often requested to express themselves graphically in the classroom and are familiar with the tools and materials (Walker, Caine-Bish, & Wait, 2009). Drawing can be fun and inspire children to be more actively involved in the research. Such a process also gave children time to think about the ideas they were portraying, rather than

having to respond in a quick and immediate way. Children had control in the process, as they could go back and modify their drawing. Asking children to draw is a way to avoid imposing adult-centered ideas. Drawings are visual ways that show how children see their world. Drawbacks of this method included children not always being comfortable and at ease with drawing and feeling inhibited in their artistic ability (Punch, 2002). For this reason, children that showed inhibition towards the drawing activity were not pressured to continue or add additional detail, as is evident in several of the pictures. Walker et al. (2009) suggested that drawings themselves are not enough to capture children's perceptions and that verbal input is critical for understanding the content of and meaning behind the pictures. In my study children were asked to draw a picture of a typical older person with the following directions:

Draw a typical older person.

Draw the whole person in a setting.

Take up the whole paper with your picture.

Use colored pencils and/or thin felt-tip colored markers.

Take as much time as you would like.

Do your very best job.

Tools necessary for the exercise were:

8 ½ by 11 inch paper

Colored pencils

Thin felt-tip colored markers

Children were given as much time as they needed to complete the drawing. Children typically took between 5 and 15 minutes to complete their picture. I was present while children drew their pictures and children were able to talk with me while they drew or work quietly. After drawing, the child responded verbally to a series of questions relating to their drawing such as, but not limited to:

Tell me about the picture you just drew.

How old is this person?

Is this person related to you?

Why did you draw this person participating in this activity?

Tell me about the way this person looks.

Tell me about what this person is doing.

In what ways is this person different from you? Think about the things he/she does, says, and how he/she looks. Also think about their personality.

In what ways is this person the same as you?

What about this person makes them a typical older person?

Think about your grandparent. How is this person the same and different from your grandparent? (not asked if the picture was of grandparent)

How do you feel about this person you drew?

The questions asked took form as the conversations developed. The conversations took on a more semi-structured interview format, where an interview guide was used with probes, but questions developed as the conversations moved forward. The conversations that followed the drawings typically took between 10 and 20 minutes.

The second method of data-collection was based on an *oral scripting exercise* where children were given a series of prompts, or incomplete sentences, and then asked to complete the sentence. This method was used in addition to drawing because it allowed for structure or cues for children to convey their perceptions in a spontaneous and unbiased way (Dykens, Schwenk, Maxwell, & Myatt, 2007), where in the drawing activity, children had time to modify and change their ideas with unlimited time. This method has been used to ascertain attitudes, beliefs, and knowledge and has the advantage of decreasing researcher tendencies to lead or bias responses (Lichtenstein et al., 2003). Dykens et al. also suggested that such a method is ideal for people with intellectual disabilities. While the current research study does not target a population of people with intellectual disabilities, it is worth noting that the method is suitable for people with a wide range of intellectual abilities. The study used the following prompts as a way to examine children's perceptions of aging. Prompts used were:

“Old is....”

“Old people always act....”

“When I am old, I....”

“Most old people....”

“You know you are old when...”

“You know your parents are old when...”

To help children understand the task, the following practice prompts were given prior to the actual exercise where the researcher could talk the subject through the process of completing the sentence:

“During my free time I like to....”

“My school is...”

“Over the holidays I...”

Prompts were individually written out on note cards so the subject had visual as well as auditory means of interpreting the prompts. After completing the activity, the researcher selected prompts that warranted further explanation and requested the children to explain their initial answers. Previous studies using this method noted that responses lacked depth and were short (Lichtenstein et al., 2003). In an attempt to overcome this weakness, the request to further explain responses provided richer and more detailed information while still capturing their initial spontaneous response. This exercise took participants about 10 minutes to complete.

Questions about children’s grandparent’s participation in physical activity were incorporated into follow-up questions after the completion of the drawing and sentence completion activities to understand the impact their grandparent’s physical activity participation has on their perceptions. I was also ascertaining what knowledge children had of their grandparent’s physical activity as well as understand if children’s perceptions of typical older adults were similar in any ways to their perceptions of their grandparents.

Questions that guided this part of the data collection were:

Tell me about your grandparent.

What does your grandparent do in his/her spare time?

Do you think your grandparent is old?

Did you know your grandparent plays {sport}?

What is it like to have a grandparent that plays {sport}?

When you are with your grandparent, what do you do together?

Does your grandparent ever talk about playing {sport} with you?

Do you enjoy spending time with your grandparent?

## **Procedure**

Participants were recruited for the study through North Carolina Senior Games. An email (See Appendix C) inviting participants from the Raleigh/Wake local games region, Johnston County local games region, Durham County local games region, and the Carteret County local games region was sent to all participants that had email addresses. If interested in being part of the study, participants responded and the staff at North Carolina Senior Games informed me. I contacted the participants to discuss the details of the study, and requested the contact information for their grandchildren's parents. To gain some context regarding the relationship the children have with their grandparents, I asked the questions listed below.

- Does your grandchild have siblings?
- What is your age?
- What sport do you play with North Carolina Senior Games?
- Has your grandchild ever seen you participate in North Carolina Senior Games?

Dates and times for interviews were organized with the children's parents and consent forms were mailed to parents and grandparents with a self-addressed stamped envelope for return of items (see Appendix D-H).

I visited the homes of the grandchildren to conduct interviews, but informed parents and grandparents that interviews could take place anywhere that would be most comfortable

for them and the children. All preferred to be interviewed in the home setting. Two interviews took place in the grandparent's home, with ten occurring in the children's homes. I had previous experience in working and talking with children of this age group which was an advantage creating a comfortable environment for the interviews. Consent and assent forms were first filled out among the children and time was taken to discuss the study and answer any last questions.

The participants and I worked in the homes of the children or of their grandparents. Seven parents/grandparents were close in proximity during the interview but parents were not actively involved in the research and were occupying themselves in other ways. For example, while I was interviewing one child, a mother spent her time cooking dinner nearby. In another interview, a mother sat nearby playing games on her cell phone. I allowed parents the option of being present during the interview to allow the child and the parent to feel more comfortable with the research process (Spratling, Coke, & Minick, in press). While children sometimes looked to parents for reassurance in their responses or to ask questions, parents were careful not to influence children and were respectful of the interview being about the children's ideas. Five sibling pairs were included in the sample. When I conducted back to back interviews with siblings, they were isolated from one another so their responses would not be influenced.

The first three interviews helped me to determine any refinements to the interview process that might have been needed. The data collected was used for the final analysis. These early interviews also gave me a better idea of how long the entire process would take. After completing the first interviews, little change was made to the instrumentation. Some

questions were added, deleted, or reworded to elicit better responses on the interview guide but no major changes occurred.

### **Data Analysis**

All methods were voice-recorded and then transcribed by the researcher. After transcription of interviews, data was imported into MAXQDA10. Transcription and initial coding occurred throughout the data-collection process so that analysis could begin and continue while collecting data. Meetings with committee members occurred throughout the analysis process to discuss findings and process.

Each method of data collection was initially analyzed independently of one another. For all methods of data-collection, similar approaches of analyses occurred using the grounded theory method of analysis where data formed the foundation of the emerging theory/theories (Charmaz, 2006). For the drawing exercise that children completed, characteristics were extracted from pictures, such as if the figure has a frown or a smile, or if the scene is outdoors or indoors. To gain an overall understanding of the group of pictures, I noted frequencies of occurrences of details in the pictures (such as the picture taking place indoors or outdoors, smiling figures, etc.). I open coded the transcripts from the discussion about the picture. Emerging patterns were identified, and the drawings were reviewed again with the patterns in mind. Themes were developed and working with the drawings and the descriptions, quotes were chosen to summarize and describe images (Walker et al., 2009). The results of this analysis indicated children's perceptions of a typical older adult.

The sentence completion exercise analysis provided children's perceptions of a typical older adult, and gave insight into how children viewed their own aging. Initial coding

was conducted to understand the characteristics that were associated with each prompt. Emerging patterns were identified and after continual review, themes emerged providing insight into the ways children perceived older adults. This data were then compared with data collected from the drawing activity.

The analysis of the semi-structured interview regarding the children's grandparents showed how children perceived their grandparents and also provided the researcher with an understanding of the children's knowledge of grandparent's physical activity. Children's outlook on their own aging was included in this portion of the interview as well as within the sentence completion task. This portion of the transcript was also open coded with major themes emerging.

Each of the three methods was coded separately so I could then identify similarities, and differences among the groups of data. I determined relevant themes for the drawing activity, which centered around the children's idea of a typical adult, the sentence completion activity, and then finally the semi-structured interview which was primarily about their own physically active grandparent. With this method of analysis being used, I could make comparisons between groups of data and compare children's perceptions of typical older adults as well as their perceptions of their own grandparent. These comparisons were critical in the analysis process because literature supports that people may hold multiple stereotypes or subclasses of stereotypes (Schmidt & Boland, 1986). Schmidt and Boland suggested that perceptions of a grandparent may center more on accepting or loving, while perceptions of another older person may center more around aggressiveness and assertiveness.

After open coding, focused coding allowed the data to be condensed but still capture the meaning of it all (Charmaz, 2006). Axial coding related categories and subcategories to one another and provided relationships between codes which resulted in major themes. Direct quotes were used to support findings.

## **CHAPTER 4: RESULTS**

This chapter presents the results of the qualitative data analysis. First, an overview of the results from the drawing activity are presented, followed by a presentation of the emerging themes. Each of the three research methods (i.e., the drawing activity, sentence completion, and semi structured interviews) was independently analyzed using the qualitative analysis methods discussed in the previous chapter. Both the drawing and sentence completion activities provided information on how children perceived typical older adults. The semi-structured interviews provided information on children's perceptions of their grandparents. Findings from each of the methods generally supported one another. First, an overview of the drawing activity is provided because it served as the opening activity for children and was a visual way for them to represent their thoughts. This is followed by a discussion of the emerging themes using the children's drawings and quotations as support.

### **Drawings about typical older adult**

The primary purpose of the drawing activity was to get children thinking about what a typical older adult looks like and the activities he/she may be participating in. Children were asked to draw a typical older adult, including as much detail as possible and were instructed to think about what a typical older person might be doing, wearing, and where they might be. Table 4.1 summarizes the drawings created by children. Images of drawings are included throughout the results section to further support findings.

Table 4.1

## Summary of Drawings

Name of Child	Age of child	Sex of child	Age of Figure in Picture	Gender of Picture	Picture related to child	Picture standing or sitting	Picture inside or outside	Picture activity	Other
Michelle	9	F	90	M	No	Standing	Outside	Standing outside of house	Cane, wrinkles, glasses, grumpy face, movie character
Isaac	9	M	56	M	No	Standing	Outside	Walking dog in park	Smiling
Chloe	7	F	63	F	Yes (NCSG)	Sitting	Inside	Sitting in chair knitting	Smiling, grey hair
Caitlin	8	F	79	F	Yes (Not NCSG)	Sitting	Inside	Sitting in chair watching TV	Grey hair
Noah	7	M	90	M	No	Sitting	Outside	Sitting on bench watching passerby	Smiling, saying "Hi"
Nicole	10	F	70s	M	Yes (NCSG but not subject of this study)	Sitting	Inside	Sitting in chair watching TV	Saying "Go Wake Forest!", bald
Jacob	11	M	70s	F	Yes (Not NCSG)	Standing	Inside	Cooking	Blonde, short hair
Timothy	9	M	71, 72, or 73	M	Yes (NCSG)	Standing	Inside	Walking down stairs in house	Smiling, wearing sweater vest
Justin	11	M	64	M	Yes (NCSG)	Standing	Inside	Playing basketball	Smiling, team is winning
Chris	10	M	70s	M	No	Standing	Outside	Hiking in mountains	Smiling, grey hair, waving, near house in mountains
Hannah	9	F	63	F	Yes (Not NCSG)	Standing	Outside	Touring Paris	Short hair, smiling
Jenny	8	F	79	F	No	Sitting	Inside	Sitting in chair watching TV	Smiling, grey hair in bun

Before analyzing the transcripts, a descriptive account of the drawings took place to gain a brief overview of what children included in their pictures and the frequency of specific characteristics. When children were asked the age of the person in the picture, responses ranged from 56 to 90 years. Fifty eight percent of the figures were male, while 42% were female. Most children drew a figure of the same sex as themselves, with only 25% drawing a figure of the opposite sex. Children were given broad directions about drawing the picture and were only told to draw a typical older adult, meaning that they could draw a family member if they chose to do so. I did emphasize that the person they were to draw was to be typical and ordinary and if children asked if they could draw a grandparent, I clarified that they could if what was being drawn was what they perceived to be a typical older adult. This direction gave me an indication if children viewed their grandparent as typical. Just over half (58%) of the children drew someone related to them though only three children drew their grandparent as the subject of this study. The qualities of their grandparents that children identified as typical and atypical are later discussed in the chapter.

Watching television, walking a dog, watching passer-bys, playing basketball, sightseeing, hiking, cooking, and knitting were some of the activities that children drew. The most commonly drawn activity was watching television, with three children including this activity in their pictures. Of particular interest, was a picture of a man standing outside of his house (see Figure 4.1), and upon further questioning, it became evident that the figure was a character from a popular children's movie, *Up*, that follows the life and adventures of an older man whose wife recently died. In the movie, he is initially portrayed as a grumpy, mean spirited character.



*Figure 4.1: “It’s Mr. Frederickson from Up...He’s old and grouchy, mean...lots of people are like him, but not everybody.”*

Other characteristics that were noted in the analysis of the drawings were if figures were smiling, as well as other facial features. All pictures, aside from one, included figures that were smiling. The one picture that did not include a smiling figure was the character from *Up* (see Figure 4.1). The high prevalence of smiles in the drawings is further considered later in the results as it may be indicative of how children viewed older adults’ personality.

Noted also in the analysis were the figures’ hair styles, and presence of wrinkles, which were observable features that may not portray attitudes, but indicated if they were features that children focused on when thinking about older adults. Three children purposefully included wrinkles on their figure’s face. Four of the 12 children depicted their figures as having grey hair.

The most useful data from the drawing activity were the conversations that developed as the children described their drawings. This conversation allowed children not only to describe their drawings, but to elaborate on their perceptions of older adults so I could ask further questions to gain more in-depth information from the children, an example being the age at which children perceived someone becomes old. I also discussed with children how their grandparent that participated in North Carolina Senior Games was similar to, and different from, the drawn person or if the drawn person was their grandparent, how they were reflective of a typical older adult.

### **Chronological Age**

The data revealed that children perceived a chronological perception of old age. They recognized that people may be considered old once they reach a certain age, though there was a lot of variation among children's responses. For example, Hannah said, "Old is considered like if you're an age like people consider old, people um 60s and above." Similarly, Isaac said his grandmother would be old "when she turns the same age as my grandfather [63]." The age was also reflected in the relativity of age as Nicole explained, "You've been on Earth for a while and well basically old for a human would be like 50 to 100 and older if you live that long, but old to a dragonfly would be like a week, so it depends." Noah offered that old is "the age of 33 and up." In the following discussion with Noah, he later changed his idea of being old to the age of 40 years, but did not explain the reason for his change in thinking. Others suggested exact ages at which someone becomes old such as Caitlin who said, "You start getting high in age, sort of like 70 years or something like that...so like the high age I consider is 70, maybe the beginning really, and the 60s, like 68, 69." Jenny added,

“Well someone is born, once this person gets older, like it starts at a 0 and goes 1 etc, and then it becomes in its 70s or something, well that’s when they become old I guess.”

The pictures children drew also provided information regarding the age of older people as children were instructed to draw a typical old person. The mean age of the figures in the drawings was 72 years with a range of 56 through 90 years. In terms of chronological age, it was clear that there was little consistency among children, with one child suggesting 33 years as the age of an older person and others suggesting ages as high as 70 years old.

#### *Knowledge of and Feelings towards Grandparent’s Age*

In discussing their grandparents, some children knew their grandparent’s age, while others were unsure. Hannah, who was unsure of her grandfather’s age but had a pretty close guess, shared that she was unsure because she felt it was rude to ask her grandfather such a question. Timothy felt the same way, “That’s kind of a rude question to ask, so I don’t really know but I think I’ve heard my mom talk and he’s 71, 2, or 3, or something.” Isaac and Chloe, like Michelle and Timothy, were aware that his knowledge of his grandparent’s age could be a sensitive subject. Isaac said, “My grandpa [not a participant of North Carolina Senior Games] is very funny and he is old, but he doesn’t like me saying that,” and his sister, Chloe said, “I think she’s [her grandmother] young...cause she always says to call her young.” Caitlin felt she should be respectful to older people because of their age.

It was interesting that children were sensitive when discussing their grandparent’s age as they did with discussing wrinkles. Some children felt it would be rude to ask their grandparents how old they were and others recognized that their grandparents were sensitive themselves about their age. Societal standards could account for such sensitivity, as

generally it may be perceived as rude to ask someone how old they are or to make a guess and fear of overestimating that guess. In the case, societal standards have seemed to have an influence on these children's perceptions and understanding of age.

When discussing their grandparent's age, the researcher also inquired if children considered their grandparents old. Again, responses were mixed. Timothy responded to the question by saying, "[would you consider him an old person?] Yes, I would, but not like old old, like 102 or something like that, like normal old." Michelle responded, "In some ways...she's old in how much older she is than me, in actual years." Later in the interview she elaborated that her grandmother's sports participation is a way that she is not old and added that she acts, "younger than she is."

Others did not consider their grandparents old, an example being Caitlin, who said, "Well she's not like very very old, she's sort of starting to be a high age, but she hasn't started since when you start getting 70s you are starting to get more and more boring."

This discussion regarding the chronological age at which someone becomes old really set the scene for discussing other traits and characteristics that children associated with old age. Like the drawing activity, the discussion about a chronological age got children thinking about their perceptions of old age and led to the emergence of the following three themes.

### **Themes**

The results from all three of the data-collection methods are presented here. Information from each of these methods was combined resulting in three themes emerging from all of the data: 1) range of perceptions of older adults, 2) building relationships with

grandparents through leisure activities, and 3) grandparents as aging role models. Topics such as personality, physical characteristics, and activities were interwoven throughout the themes.

### **Range of Perceptions of Older Adults**

Children perceived older adults primarily in terms of their personality, physical characteristics, and activities. Children also discussed the age when someone becomes old and then considered old age in reference to their own grandparents. Children's perceptions included a range of characteristics as indicators of being old and, at times, perceived their grandparents differently than other older adults.

#### ***Personality & Cognitive Traits***

When the children were prompted to talk about age, they commonly referred to an older person's personality. While comparing children's perceptions of older adult's personalities with the way they perceived their grandparent's personalities, some consistencies and inconsistencies emerged. In discussing typical older adults, children commonly referred to older adults as nice and happy, but also included descriptors such as quiet, calm, and sometimes even grouchy or sour. Children perceived their grandparent's personalities in only positive ways using descriptors such as nice and smart.

The personality of a typical older adult to the subjects of the study was quite varied. Children suggested that older people are nice. A common response to the sentence completion prompt, "Old people always act..." was the word, "nice," or, "kind." This finding was important because the sentence completion task was designed to gain a quick and spontaneous response from the children showing how they felt about the question at hand.

Nicole added more detail to her response by saying, “They almost act calm and usually nice to people...they are usually nice because, well most of the time, because they’ve experienced what it feels like to have someone be mean to you and they know a lot of stuff.” Nicole seemed to be suggesting that an older person’s life experience encourages them to be kind to others. She also added that her grandfather (not the subject of this study) was sometimes bossy, making him different from a typical old person. Jacob also explained:

They [typical old people] always are [kind] to you, you never know how they act to other people, cause you’re never around them as much, but when they are with you they are nice...a younger person will get into moods and stuff and I don’t think a grandparent is like that unless you see them when they are like that which really don’t because they hide it I guess.

Other descriptions of typical older adults included being smart and knowledgeable. Caitlin inferred that having more life experience allows older adults to be smart and when talking about the picture she drew:

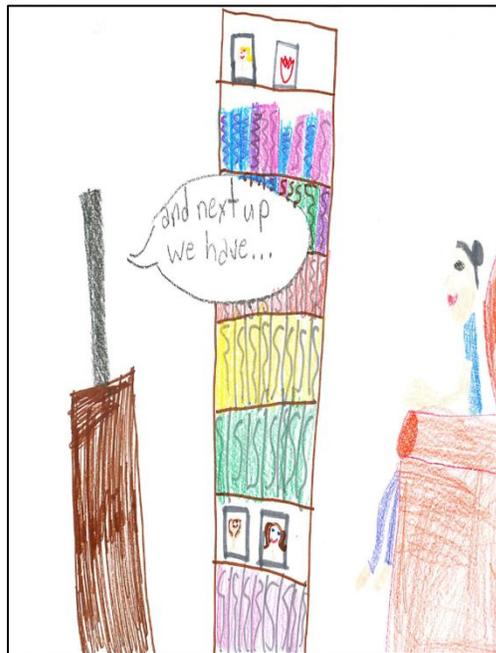
She [see Figure 4.7] probably knows a little bit more than me because she has been in school for a little bit longer and...she probably had more of a lifetime and knows what’s more right and wrong and knows what’s going to happen if this happens.

Justin plainly put it, “He’s smart, well I’m smart, but he’s like Einstein.” Here, Justin was talking about the figure he drew in his picture who happened to be his grandfather, but was representative of typical older people in his mind (see Figure 4.11). Children seemed to acknowledge that wisdom could be a defining characteristic of old age.

Other personality traits that children discussed as being typical of older adults were being happy, fun, and funny. All but one child drew a smile on the figure's face in their drawing. Children also identified that if they were to have conversations with the people they drew in their pictures, conversations would be pleasant, and that other person (the older person) would be nice.

Children also associated older people with being calm, quiet, and relaxed. Jenny drew a picture of a woman watching television (see Figure 4.2) and described her as looking relaxed and continued to elaborate by saying:

I like to run around and be kind of wild and she probably likes to take walks and probably doesn't want to be very loud...they [typical older people] are not doing anything that is really crazy or out of the ordinary, they are just doing normal stuff.



*Figure 4.2: "It's some person, some woman, watching TV, in a living room...because quite a few old people watch TV...she looks I guess relaxed."*

Jenny might have been suggesting that younger people, including children like herself, might be more lively, a contrast to the way older people act. Nicole also felt that old people are usually calm, explaining, “Well I’ve never really seen a really wild old person, I guess if they have a mental problem they might be wild, but I have never met an old person with a mental problem.” Jacob suggested that older people don’t get mad, further supporting the idea of older people having calm personalities:

She (see Figure 4.8) doesn’t get mad, like grandparent’s don’t...my parents call me the kind one in the family, I don’t fight all the time, I’m the calm one who sits around all the time and that’s how grandparents are.

Less desirable descriptors of typical older adult’s personalities included weird, sour, grumpy, and grouchy. Timothy felt that older people are more cautious, a trait he expressed aversion towards. When discussing the behaviors his mom exhibits that he felt make her old, he explained, “She’s not letting us grow up and take our chances...older people are finicky about stuff, like more cautious.” Timothy later described a mental picture of a typical old man waving a cane in someone’s face saying, “Sonny, get out of the house!” In this part of the conversation, Timothy made an angry face and spoke with a shaky voice to further emphasize the grouchy characteristic he was trying to portray. Michelle also associated older people with a grumpy personality. In describing the picture she drew (Figure 4.1), she said, “It’s Mr. Fredrickson from Up...he’s old and grouchy, mean.” She also said, “He’s really sour, I’m nothing like him, I’m the opposite, that’s a big difference though about how sour he is.” She further explained with enthusiasm that her grandmother is not at all grumpy like the

character she drew. Michelle clearly had strong feelings about how grumpy her figure's personality was, which she later indicated was due to the death of a spouse and having not been around children as he aged.

The broad range of children's perceptions of typical older people's personalities led to the conclusion that perhaps children did not have consistent and regular perceptions of older adult's personalities. Their perceptions may be context specific, such as Michelle associating an old man whose wife had just died as being less kind and happy.

In discussing their own grandparent's personalities, only positive descriptors were used by children. Children considered their grandparent's personality to be typical, indicating that they felt older adults have kind and nice personalities, although this view was somewhat contradicted in the data as children also suggested that older adults sometimes had grumpy and sour personalities, too. It is human nature to display a wide range of personality traits so it seems normal for children to perceive older adults in this way. However, what was interesting about the way children perceived their grandparents was that they only perceived them in kind and pleasant ways. Considering the context of their relationship might be important in understanding why children only perceived their grandparents in such good ways.

Overwhelmingly, children felt their grandparents were nice although few used great detail or elaborated on this trait. When asked to describe their grandparents many children simply used the word "nice" as a describing word. Many children also identified their grandparents as having a happy personality. Michelle explained, "She's always in a good mood, well whenever I see her."

Children also viewed their grandparents as smart and intelligent, and sometimes even as outgoing. Other traits relating to personality which children indicated make their grandparents typical, included being caring, acting mature, acting normal, and not bragging. Nicole explained how she perceives her grandmother to be mature by saying, “I mean, she’s really nice, and she um she doesn’t do any kiddish things.”

It was clear that children only had positive perceptions of their grandparent’s personalities while their perceptions of typical older adults were broad, including traits such as happy, calm, and grumpy.

### ***Physical Characteristics***

Consistency was found among perceptions of typical older adults and of grandparents regarding physical characteristics. Overall, children’s perceptions of typical older adults and of their grandparents that focused on appearance were similar to the normal degenerative process of the aging body with examples being greying hair and the onset of wrinkles. Grandparents having a healthy appearance (i.e. in shape) were the only difference in children’s perceptions of physical characteristics compared to typical older adults.

The developmental abilities of children may account for such a focus on physical characteristics. Physical characteristics are concrete and easily tangible for children. Timothy demonstrated his focus on physical appearance when he was asked how he was different from the figure he drew in the picture (see Figure 4.12).

Well for one thing, I’m younger, I’m shorter, and I’m skinnier, don’t live in a big house, and like I don’t wear sweater vests that often. And I don’t have wrinkles on my face, well only a tad, but like my hair isn’t like my skin color, it’s brown. It turns

really blonde in the summer when we go to the beach. I don't wear long pants a lot. I hate long pants.

Timothy was focused on the physical characteristics of the figure he drew, and without me probing deeper, many children's perceptions were centered on appearances like Timothy's. An example of children focusing on older adult's appearance was the discussion of wrinkles. Older adults having wrinkles was the most salient descriptions of physical characteristics. Noah said, "Well every old person has to be wrinkly." Some children did not actually draw wrinkles on the faces of their figures in the drawing activity, but in elaborating on the pictures, subtle features came out. For example, Noah explained, "He looks all wrinkly, but he doesn't really look like that on the paper (see Figure 4.4)." While Michelle was drawing, she explained, "I'm trying to make him look old and pruney and stuff like that (see Figure 4.1)." A prompt during the sentence completion task was, "You know you are old when..." Children often responded to this prompt by stating that the onset of wrinkles has to do with being old. Caitlin specified though, "You might start getting wrinkles but not like at the first time you get your first wrinkle, when you get a lot on your face."

While having wrinkles was often the first thing that came to children's minds when asked about being old, they appeared somewhat uncomfortable discussing wrinkles, as if they were afraid of being rude. Chloe, when talking about wrinkles, uncomfortably laughed as she responded to the prompt. Timothy, a more talkative and blunt child, did not hold back his thoughts and elaborated,

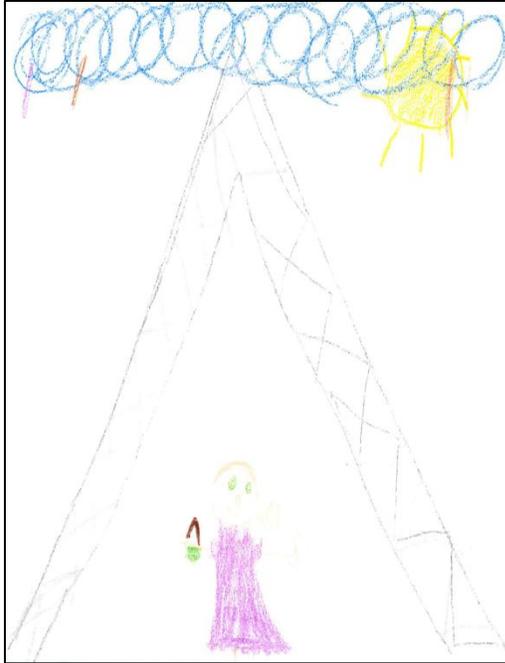
"I don't really know how to describe his [his grandfather] face, he's a little bit wrinkly...but nothing like I'm dying in three days, nothing like that. He's very active

and in shape and his shape isn't...as wrinkly as my teacher. I have a teacher that is kind of older, let's not go there."

Understanding why some children had this reluctance to talk about wrinkles is somewhat unclear. Such reluctance could relate to fear of being rude. Our society values youthfulness, and as children expressed, wrinkles were a key identifier of one being old. Children openly discussing older adults' wrinkles could relate to holding up societal standards of being polite.

In addition to wrinkles, children associated grey or white hair with being old. The hairstyle worn by older people was also noted with children suggesting curly hair, straight hair, short hair, baldness, and buns as common hair styles worn by older people. Hannah, in discussing the hair style of the typical older adult she drew (see Figure 4.3), said, "She has hair only cut like a guy." Hannah was describing the short hair style commonly worn by older women.

Children also suggested that clothing choices were similar among older people and were perceptive into the types of clothing that older adults wore. In general, children identified that the clothing choices of their grandparents were similar to the clothing choices of typical older adults. Caitlin shared, "She is usually not dressed too fancy." She was describing the figure she drew in her picture (see Figure 4.7). Chris also said that typical older adults wear regular clothes that are not fancy. Hannah also touched on the casualness of older adult's clothing by suggesting that older people wear dull colors. She drew a picture of a woman wearing a purple dress with ruffles and carrying a purse and a flower (see Figure 4.3). She explained why she used the color purple, "[I was] trying to find a dull color, but I just used purple...old people usually use dull [colors]."



*Figure 4.3: “She is in Paris, and it’s a nice sunny day but it’s kind of shady ‘cause it’s in the clouds, she is wearing like a purple dress with ruffles at the end, and she is wearing a green purse with leather on it and then she is holding a flower, and she has hair only cut like a guy.”*

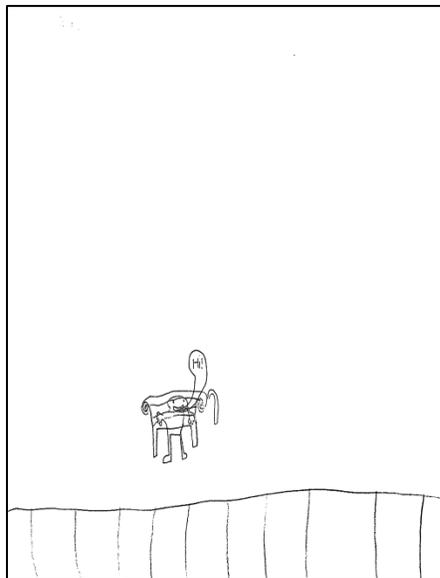
Timothy also discussed the way the clothing looks that older people usually wear,

“They wear kind of like older clothes, well not...older, but look older, and ...the women usually have...flowers and stuff, and the men usually wear...my papa [the subject of this study] wears...cause he’s really active...sweater vests...and...some older people wear not so nice shoes.”

Nicole felt that older people do not wear matching clothes and Caitlin described old clothing as, “Not like a shirt that has number one grandma or something like that, it’s more like what you would find for what she would have when you were just...in after the war.” Caitlin further explained though that some of the clothes she might like to wear herself because of their floral patterns. Jacob suggested that the clothing older adults wear is nicer than that of

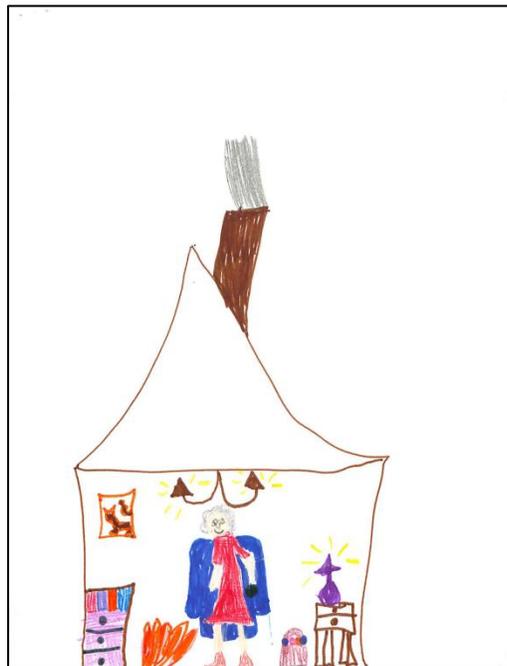
children's because children have "play clothes." Nothing about the way children described their grandparents clothing was different from the way they described typical older adult's clothing choices.

The use of canes and crutches was discussed among some of the children as being typical for older adults. However such assistive devices were never discussed in reference to their grandparent. Michelle, who drew a movie character (see Figure 4.1), noted that the character does not actually use crutches, but she included the devices because, "I thought it would make him look as old as I could...it's just that I tried to make him look like he was about to die, something really, really old." Michelle also referred to the crutches as the funny part of the picture. Noah felt that such a device is normal for older adults and clarified that in his picture, the figure needed a cane for assistance with balance. Notice in Figure 4.4 the cane next to the man in the drawing.



*Figure 4.4: "There is a man in this, he's in the city sitting on a bench saying hi."*

Other assistive devices such as glasses were discussed by children. Noah associated older people with wearing glasses as did Timothy who said that an indication of being old is the need for glasses. Chloe made sure to point out in her drawing (Figure 4.5) that all the lights were on. While the figure was not wearing glasses in the picture, her discussion of lighting possibly indicated her perception that older adults having more difficulty seeing and therefore might require extra lighting.



*Figure 4.5: “The old person is about to knit and she’s going to knit and she turned on all the lights, and organized her house.”*

The height of older adults and their grandparents was discussed by children. Children who discussed height associated old age with a tall height, and seemed to think positively about this. Hannah, when describing her grandfather, said, “He’s tall and sometimes my parents...make fun of him [her grandfather who was part of this study] but I don’t back them

up...tall is a good thing, short's not that great." Nicole did not associate old age with a tall height and she said that people are old when they stop growing.

Children perceived their grandparents as active, healthy, and in shape. This physical characteristic was not discussed regarding typical older adults. When Hannah described her grandfather she said, "He's really athletic and healthy." She added that her grandmother helps keep him healthy. Timothy had positive feelings towards his grandfather's health, saying, "I feel like he is going to live a really long time, longer because he is [in] really good shape, he plays tennis, he golfs...he's in really good shape." Timothy also attributed people taking care of him as one reason why he is as healthy as he is now. Timothy also recognized that playing sports, like his grandfather does, "Will keep you healthy if you are an old person." Justin shared similar sentiments, when talking about his grandfather saying, "He is active and he won't die soon." With children perceiving their grandparents in such healthy ways, considering the impact those perceptions were having on their own outlook of aging was important.

Children's grandparents were never perceived as being reliant on assistive devices such as crutches or a cane. Grandparents were perceived as having typical physical characteristics such as wrinkles and grey hair, but children also perceived their grandparents to be healthy and having a healthy physique. Perhaps children never associated the use of such assistive devices with their grandparents because of their perceived health status. Noah mentioned that using a cane came from the need for help with balance. It is likely that his grandfather likely would not be such an active member of North Carolina Senior Games if he required such assistive devices, although that is speculative. Of particular interest was how

Justin, when talking about his picture that included his grandfather playing a basketball game (see Figure 4.11), said that one of the other players on the team would have a cane. Justin felt that the need to use a cane would not inhibit someone from being active and playing sports.

Overall children seemed to perceive the physical characteristics of both typical older adults and their grandparents similarly with the exception of their grandparents appearing healthy and in shape.

### *Activities*

Children discussed many activities as being part of a typical older adult's lifestyle, including sedentary activities, other activities that might be considered less active, and then also more active activities. Children perceived the activities engaged in by typical older adults and by their grandparents differently from one another, although there were some similarities. Children overwhelmingly perceived their grandparents as sports players and as athletic while children generally attributed more sedentary and less active activities as describing typical older adults. Grandparents, however, were also perceived as participating in these other activities in addition to having a more active lifestyle (Figure 4.6).



*Figure 4.6: “So this is my grandpa [while this grandparent is a participant in NCSG, he is not the subject of this study] and he is in his chair watching a football game...usually when we go over to his house he’s either doing that or working in the yard or making dinner or something, but he’s usually watching something.”*

### *Sedentary/Passive Activities*

Children generally perceived typical older adults as less physically active and participating in activities such as watching television, sitting, and resting. Their grandparents were sometimes perceived as also participating in these more sedentary and passive activities.

Three children drew pictures of typical older adults watching television. See Figure 4.7 as an example.



*Figure 4.7: “Usually when I mainly see her she [grandmother that is not subject of this study] is usually mainly sitting there with other cousins and she usually has the TV on, I don’t know if she is talking with them, but it’s usually in that chair, and she likes to watch cooking.”*

Other children, some who did not draw pictures of older people watching television, also brought up sitting and watching television as common activities for older adults. Nicole said:

Well he’s (see Figure 4.6) pretty much normal because he doesn’t do crazy stuff like skydiving or anything and he just basically goes to church, works in the garden, and then watches TV, and that’s normal stuff to me, well yea to most people I think.

Jacob added, “[most old people] aren’t active I guess, don’t play outside all that much, they like to sit around in homes and watch TV or read.” Others described typical older adults as less active like Timothy who said:

They don't really do much running or something like that, like I could have drawn him doing tennis but that's not really ordinary for an old person, just you know some older people they just like walk up and down stairs sometimes to get some exercise.

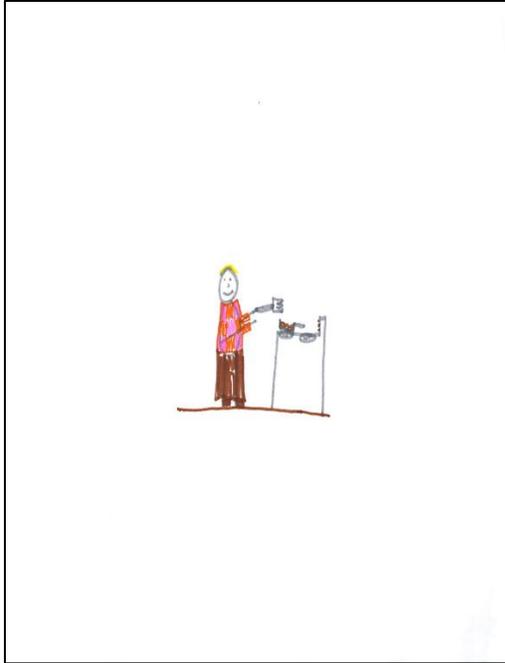
Children did identify that their grandparents watched television, but not nearly as often as other older adults. When children discussed their grandparents watching television, all specified that the type of television programs watched were sports related supporting grandparent's interest in physical activity. Hannah commented, "He usually watches basketball." Timothy shared, "He likes to go up there and watch golf and tennis." Justin, who drew his grandfather in a North Carolina Senior Games basketball competition said, "[in response to his grandparent's spare time activities] mostly watching basketball." Though children mentioned their grandparent's watching television, I felt that the commonalities of programming type were important to note. Children perceived grandparents to only be watching sports on television, supporting the notion that physical activity and sports are an integral part of their lives.

Additionally, children associated being slower and weaker as qualities of aging sometimes resulting in inactivity. Noah associated resting as activity that typical older adults often do and he specified that a form of resting is napping. Michelle tried to make her drawing of a typical old person look tired. Chloe associated not being able to do much with being older and Isaac suggested that old people sleep a lot. Jacob also felt that older people tire more easily, and he thought being tired often results in older adults not wanting to play with children anymore. Numerous children used the word "slow" to describe older adults. Several children expressing the reasons for slowing down with age. Timothy explained that,

“Old is growing up and passing the stage of like running and jumping and playing...you’re back starts hurting or neck starts hurting.” Caitlin suggested the reason why older adults slow down in old age, saying, “Your bones start getting several times weaker so you don’t have the ability to be able to do that stuff [sports].” Jenny further explained the effects of slowing down, suggesting that, “When they [older adults] get older they become slower and it’d be hard for them to run around and be really wild.”

Another sedentary activity that children perceived older adults participating was art. While certain forms of art could be more strenuous, children identified their grandparents as participating in forms of art that were relatively sedentary. Forms of art such as sewing, knitting, pottery, and painting were discussed by children as activities commonly engaged in by their grandparents. Chloe knew about her grandmother’s choice of artistic expression, and shared, “She likes to knit, and she’s very good at it...she likes to draw.” Knitting was a form of art that was associated more with typical older adults, though some children discussed their grandparents participating in this. Even though Chloe identified her grandmother knitting, she also added, “Old ladies just like to sit down and knit and lay down sometimes and not be active and they just like to sit and move their hands by knitting.” Timothy felt that, “[most old people] sit in a rocking chair knitting while watching TV.”

Some children associated typical older adults with eating and cooking, but not nearly to the extent as they did their grandparents. Jacob drew a picture of an older woman cooking, as he associated older adults with cooking (Figure 4.8).



*Figure 4.8: “I guess it’s like somebody, like a grandma or somebody, cooking a meal...when I think of a grandparent or somebody, like that’s what I think of.”*

Children perceived older adults differently in terms of staying home and traveling. Some children associated older adults with not getting out of the house, while other children associated older adults with having increased travel opportunities. Hannah felt that, “[most old people] stay at home and clean...they’ve worn out their bodies and they just don’t want to do anything, and they are too weak to go to different states.” Michelle believed that, “[most old people] act old...they don’t go out.” Jacob seemed to imply that older people don’t get out of the house by saying, “[most old people] sit around in homes.”

Children’s association with staying home could stem from or be related to their perceptions of older adults being less active. In contrast, Hannah and Noah associated travel as a typical activity for other older adults. Hannah drew a picture of a woman traveling in Paris (see Figure 4.3) and discussed how travel is easier for older people because of their

freedom from responsibility to children. Though she did contradict her earlier statement about old people staying home, she shared, “Because if they [referring to people who want to travel] have kids...it’s long, so it may be a bad trip there and a bad trip back...I thought my grandma would like to go to Paris and like it’s a cool place for people to go, they [typical older adult] might be older and they don’t have any kids.” Noah, when asked if he could have a conversation with the typical older adult that he drew in his picture, replied by wanting to know where he has been before, signifying the possibility that the older man may have had many travel opportunities in his lifetime.

Chris suggested that when one gets older, living arrangements change. He said, “I guess you start living alone or with just your husband or wife.” He further elaborated that in his school he learned that as one ages, people start to live in more rural or desolate areas, as when one is younger, people tend to live in more urban or suburban areas (Figure 4.9). Perhaps more opportunities present themselves in urban and suburban areas, allowing for more opportunities to get out of the house and be part of activities. When I asked Chris why older people move away from busier areas, he could not recall and shared that he learned the material a few days prior to our interview.

Clearly, children perceived a variety of sedentary and passive activities that children perceived typical older adults and their grandparent participated in. They also talked about other activities, of a less strenuous nature.

#### *Less Strenuous Activities*

Walking and being outdoors was an activity that children only associated with typical older adults (see Figures 4.9 & 4.10). This activity never came up in conversation with

children about their grandparents, perhaps because the physical activities they associated with their grandparents were more strenuous such as tennis, running, and basketball. Some of these activities associated with grandparents can take place outdoors. However children never directly spoke of such activities in an outdoor setting as they did of typical older adults. Isaac explained, “Old people like to go out for walks with their dog if they have them, but most old people like going out for walks.” Jenny also discussed typical older adults and walking and shared, “I like to run around and be kind of wild and she [typical older adult figure in drawing] probably likes to take walks and probably doesn’t want to be very loud.”



*Figure 4.9: “We just sort of learned in school that the younger you get you want to live in cities, but the older you get you want to live more far away, so this is some guy in the mountains where there’s not much people...I guess he was just going on a hike.”*



*Figure 4.10: “A man is walking a dog in the mountains...he’s out in the mountains at the park, national state park, and he’s walking his dog in the park....because I think walking dogs is fun so I bet most everybody that likes dogs would like to walk their dog in the park and most everybody likes mountains.”*

Justin also felt that older people like being outdoors and said, “My grandma and grandpa [not the subject of this study] always like to be outside, and most old people that I know like to stay outside and relax.”

Interestingly, Isaac, who drew a picture of a man walking a dog in a park (Figure 4.10), initially assigned the figure in his drawing an age of 80 years, but then changed it to 56 years. Upon further explanation, he felt that hiking in a park was more appropriate for a 56 year old, an age that he still considered old. Noah associated sitting outside on a bench watching people and cars as something older people like to do. Enjoying the outdoors and

walking were perhaps perceived by children as common activities of typical older adults because of their less active nature.

Home improvement and related house work was another activity associated with typical older adults, including their grandparents. Chloe drew a picture of a woman knitting (see Figure 4.5), but explained that prior to sitting down, “She turned on all the lights and organized her house.” Nicole described what her grandfather, who was not the subject of the study, does in his spare time. She said,

“Usually when we go over to his house...he’s [grandfather who is not the subject of this study] working in the yard...he usually likes to do yard work...we both like to build, he’s building a tree house in his back yard...and we both like to garden.”

Timothy shared, “Sometimes he (see Figure 4.12) takes a shower or cleans or something like that,” and Hannah said in response to a sentence completion stem that, “[most old people] stay at home and clean.” When asked about her parents, she said, “[you know your parents are old when] they start getting wrinkles and they start cleaning up the house.”

Children perceived older adults as improving their home by doing yard work, gardening, and cleaning. Grandparents were also perceived as participating in home improvement but even more notably, they were perceived to have participated in physical activities.

#### *Physical Activity/Sports Participation of Grandparents*

The physical activity level of children’s grandparents was perceived by children as different from typical older adults. Children commonly referred to North Carolina Senior Games in their discussion about their grandparent’s physical activity, and they also

recognized that their grandparents may have been physically active as children. Children perceived their grandparents as involved in physical activity in a variety of ways, including through North Carolina Senior Games, watching sports programs on television, and even participating in sports together.

Children overwhelmingly perceived their grandparents as sports players and as athletic. The first semi-structured interview question about children's grandparents was "Can you tell me about your grandparent?" Many children incorporated into their responses mention of their grandparent being physically active. Many responses were short, blunt, and to the point. For example, Hannah said, "He's really athletic and healthy." Timothy commented, "He's very active and in shape." Michelle was a little more verbose and said, "She's athletic, well in running and swimming and biking...she's really athletic like younger people." Michelle associating her grandmother's physical activity with that of younger people is worth noting. Michelle later explained that she felt her grandmother acts younger than she actually is. Her grandmother, at the time of the study, was 65.

Some children, like Justin, also perceived typical older adults as being physically active, but not to the extent that they felt their grandparents enjoyed and participated in this activity. Justin was the only child to draw a figure participating in a North Carolina Senior Games event (see Figure 4.11), though Chris drew his figure hiking in the mountains (see Figure 4.9). Justin said, "Usually I think that older adults are kind of active and not like sitting down and just watching TV all day," and Chris shared, "[when asked about the likes of the typical older adult he drew] well he likes going out, like hiking and swimming."

When asked about the typicality and atypicality of their grandparents, the main characteristic that children identified as being atypical of their grandparents was the activity level of their grandparents. All but one child identified their grandparent's involvement in Senior Games or other sports as indicators of them being atypical. Children sometimes referred to North Carolina Senior Games events as Olympics or Senior Olympics. Jacob described his grandfather and shared, "I guess he's more active and he likes to play, not sit in the house and just stare at the wall...my papa like the one that plays tennis, he's really active, which most people aren't." In comparing her grandmother to other older adults, Jenny said, "Not a lot of grandparents swim the Olympics, but she is typical otherwise." Similarly, Timothy contrasted his grandfather to other older adults and said, "Most old people don't do that [playing sports], they just sit around and watch TV...we go to Raleigh Racquet Club where he plays and I maybe see 5 people in his age." Justin suggested that other older adults are active, but he also felt that his grandfather was different from others of his age because of his high activity level. He shared, "I think that older adults are kind of active and not like sitting down and just watching TV all day, [but what makes him different from other older adults is] he's really really active."

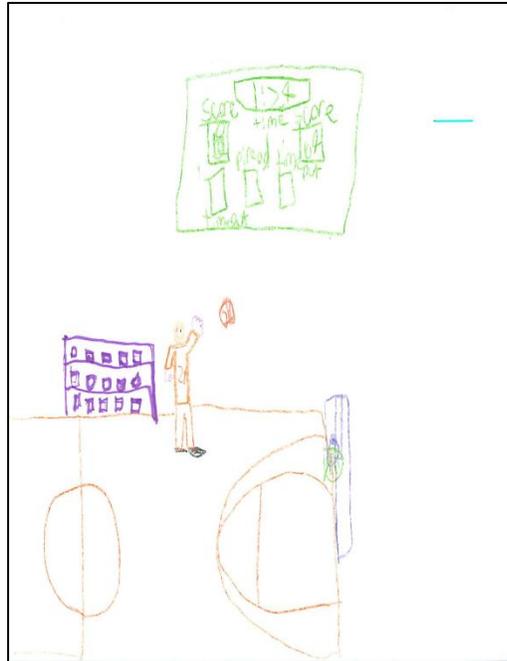
Children continued to compare their grandparents to other older adults and commonly the first thing they discussed being different about their grandparents from others was their physical activity level. Children seemed to take a lot of pride in discussing their grandparent's physical activity and involvement with sport and North Carolina Senior Games. Michelle offered, "A lot of people in her neighborhood are nice but they don't do the things she does like sports and things like that. They just read and cook." Likewise,

Nicole discussed her grandmother as a swimmer and said, “I don’t know many old people that swim for like the Olympics, the Senior Olympics...I think that she swims would make her different from some people.” Nicole did acknowledge though that her grandmother is the same as other older adults because she is not as active as younger people. Chloe boasted about her grandmother being a sports player by saying, “Most many grandmas can’t do that [sports] so I would think that’s really cool having a grandma that can do those things...she is more active than them [typical older adults]”

Children attributed physical activity to their grandparents as being atypical in other ways. Isaac pridefully spoke of his grandmother when he shared, “[when asked if it is normal for older adults to compete like his grandmother] no, not really because older adults like to be lazy...she does a lot more things, she competes in things, she did Ironman.” Chris used the word “unique” to describe his grandmother’s swimming participation.

Children generally seemed to have knowledge of their grandparent’s sports participation. In fact, some children also recognized that their grandparents were athletic as children which could have several implications. When asked why her grandfather is so active now, Hannah acknowledged that he was athletic as a child. Timothy and Nicole also discussed that their respective grandparents participated in the same physical activity as a child as they did currently.

Many children spoke of typical older adults and their grandparents as happy as noted earlier. Justin also described typical older adults and his grandfather as happy, but he partly attributed sport to reasons for his happiness. He drew his picture of a typical older adult playing basketball (see Figure 4.11).



*Figure 4.11: “It’s an old guy playing basketball...because I think it’s typical for an old guy.”*

Figure 4.11 shows his grandfather Justin emphasized throughout the interview that basketball is a big part of his grandfather’s life. He explained the picture, “He would be happy, really happy, cause they are winning 64 to 0.” Here, Justin described his grandfather as a happy older man, but he recognized that sport had an influence on his grandfather’s happiness. Children seemed to perceive that their grandparents to place importance on physical activity and sport.

In summary, all children had knowledge of and discussed their grandparent’s participation in sport, and indicated that such participation was an indicator of them being different from other older adults. Children’s knowledge of their grandparents’ sport participation could support that North Carolina Senior Games and physical activity is an integral part of their grandparent’s lives.

### *Summary*

In summary, children had a wide range of perceptions of older adults. The age at which someone becomes old was perceived by one child as starting at 33 years but by other children as 60 or 70 years. Children perceived older adults' personalities as nice, happy, calm, and grumpy. Activities typical for older adults to engage in included sitting, watching television, reading, art, staying home, traveling, eating, cooking, home improvement, walking, and being outdoors. Children perceived the appearance of older adults to be wrinkly, as having grey or white hair, to wear less fancy and dull clothing, and as using assistive devices. Children's grandparents were perceived as similar to other older adults because of their kind personalities, some physical characteristics, and because of their engagement in sedentary and less active activities. Children perceived their grandparents as different from other older adults in a variety of dimensions including having a healthy appearance and never having mean or grumpy personalities, but most notably in terms of their physical activity level and involvement in sport.

### **Building Relationships with Grandparents through Leisure Activities**

Children spoke fondly of the time they spent with grandparents. Much of children's time with their grandparents involved leisure activities including eating, arts and crafts, and sports. Children were supportive of their grandparent's physical activity endeavors, and the reciprocity of their relationships was important to consider, though not always related to sports participation. Children seemed to interpret their time in leisurely pursuits with their grandparents as special.

Visiting with family was an activity that children strongly associated with their grandparents but was not discussed as something other older adults engaged in. Some children also recognized that their grandparents sometimes spoiled them, which may partially account for the positive association they have with visiting family. Children discussed the frequency and variety of contexts in which they visit with their grandparents, which was in addition to their joint participation in sports and other physical activities. Holidays were a time of frequent visits. Hannah said, “When it’s like a holiday he comes over here and hangs out with us.” Caitlin shared:

In her spare time she usually tries to see if she can come to us or in her spare time she sometimes may be with my baby sister...if it’s Christmas they [her grandmother and the figure she drew in her picture, see Figure 4.7] try to get me something that I would really like or a lot of stuff.

Children’s perceptions of their grandparents as eaters and cooks had an emphasis on special occasions. Children associated eating and cooking with typical older adults, but when discussing such activities in reference to their grandparents, children mentioned the occurrence of a special occasion. Hannah remembered that on Grandparent’s Day her and her grandfather always go out to eat at a restaurant and continued to share that her grandfather really enjoys eating desserts. Timothy also remembers special events with his grandfather and discussed parties at his grandfather’s house where the family eats and talks together on the screened-in porch. Jacob described special birthday celebrations with his grandfather where they eat together in restaurants. Caitlin emphasized that her grandmother tries to think of special activities for them to do together, one being going out to eat together.

Others shared that activities they participated in with their grandparents sometimes involved cooking together, or Michelle even simply shared that her grandmother is an excellent cook. She said, “She makes really good food...we get lots of dessert...sometimes she gets ice cream, she makes cakes, and it’s all so good.”

Part of the criteria for being in the study was frequent contact between grandparents and grandchildren, which could account for the high frequency in visits and the emphasis on the strong relationship between grandparents and children. Proximity in living arrangements may have also been a factor in children’s perceptions. Regardless, being with and supporting family was something children perceived was typical with their grandparents. At the time of the interview, Timothy had just shared, “Well he just came over today, like 30 minutes ago, I’ve seen him really really often.” Justin spoke affectionately of time spent with his grandfather, saying, “He likes to come over a lot, and whenever he does we have a great time.” Jacob and Chris also spoke positively about their time with their grandparents. Jacob acknowledged that his grandfather supports him and his brothers. He said, “He likes to support us, like going to my brother’s swim meets and soccer games...coming to our house, and playing with the dog and stuff.” Chris reminisced about family trips with his grandmother and said, “She likes taking us on trips, with the whole family.”

Children also identified telling stories and talking about their past as something that their grandparents often do with them. Children seemed to enjoy this part of their relationship as Hannah shared:

They always talk about their childhood and different things that we have no clue what it means...they talk about when I was born or when I was like 3 or 2 that I have no

clue about...I kind of feel good to know what I do when I'm young and they kind of explain it, like what we did and where we were and what we were doing and they explain it really good that I kind of get the picture...to hear their stories about when they were a kid and what they did and when my mom was a kid.

Having such conversations with grandparents could encourage the bond between grandparents and grandchildren. Children spoke of their grandparent's stories only in fond ways.

Children also spoke of art as being something that that they engaged in with their grandparents. Michelle, describing what she commonly did when she visited with her grandmother, said, "We build things out of clay, and paint, and I'm an architect, and we sew sometimes." Nicole also shared that art is something her and her grandmother do together and said, "She's really good at sewing and we've made some things together sometimes." Caitlin added, "We usually try to find something special like sometimes we'll do arts."

Their grandparent's focus on family was perceived as special to children. Children never made mention of other older adults having such family time. This association could be interpreted as children valuing and feeling that their time with their grandparents is special and may also account for why they are so supportive of their grandparent's endeavors in sports.

Children identified that among sedentary and passive activities that they participated in with their grandparents that other common relationship building activities engaged in with their grandparents included sports and/or North Carolina Senior Games. Interactions between grandparents and grandchildren often involved physical activity. Some children

were given their grandparent's North Carolina Senior Games medals, and some had attended their grandparent's sporting events as spectators.

For children, many had relationships with their grandparents where sport participation with one another was a big part of the relationship. Chloe and Isaac's grandmother, who had recently completed her first Ironman, was their track coach at school. Chloe further shared that when they were together, which is typically at least on a weekly basis, her and her grandmother rode horses together or went on bike trails. Chloe even ran a triathlon relay with her grandmother, as did her brother, Isaac. Isaac shared that he participated in several different physical activities with his grandmother, "She usually takes me running, biking, or swimming. I like swimming the best." Michelle went canoeing with her grandmother, even racing against grandmother and other family members sometimes. Noah said his grandfather went to the park with him often and threw throw the discus together. Noah was impressed by his grandfather's ability stating, "I can't throw it far but he sure can!" Noah even further emphasized that his favorite part about spending time with his grandfather was going to throw the discus. Jacob's grandfather plays golf in addition to playing tennis for North Carolina Senior Games. When asked what Jacob does with his grandfather, he said, "Golf, he takes us to the driving range and we hit golf balls." This joint participation in sports has seemed to really influence their attitudes and admiration for their grandparents.

Though children sometimes did not discuss actual participation with their grandparent in sport, some discussed watching their grandparents play or compete. Timothy talked about going to watch his grandfather play tennis at the local club. Although Jenny did not identify participating in physical activities with her grandmother, she did discuss cheering on her

grandmother in a triathlon relay and how she perceived her grandmother to be really fast. Jenny's older sister, Nicole, actually participated in the relay with her grandmother: Nicole did the biking, while her grandmother completed the swimming component. Nicole also said that they swim together during the summer. Chloe discussed cheering on her grandmother at the North Carolina Senior Games swim meet and excitedly shared, "She was doing a good job and she almost beat it, I thought she was going to come in first place and she did on one of them!" While watching and cheering on his grandmother in the same swimming competition, Isaac thought to himself, "One day I can do this, when I grow up, I can do this!" Though this sort of involvement with one another did not actually involve physical activity with one another, being such a spectator of their grandparents could have impacts on their perceptions.

Some grandparents have even given their North Carolina Senior Games medals to their grandchildren. This could reflect the special meaning the grandparent's attributed to the organization, but it could also have implications for the children. Children spoke of the medals fondly, and having such tangible rewards for physical activity efforts could serve as motivation. Chris's grandmother, a swimmer for North Carolina Senior Games, gave Chris one of her winning medals when he was younger. He said he still has the medal. Noah's grandfather, who participates in track and field events, brought a winning medal to the hospital when Noah was born to give to him. Michelle talked about how her grandmother's medal she won after a running race was "sparkly and cool."

Children identified participating in physical activities and sports with their grandparents. Some children watched their grandparents in sporting competitions, such as

North Carolina Senior Games, and cheered them on, and some even have their winning medals as mementos. The common discussion of joint participation in sports and spectating was a clear indication that physical activity is part of these grandparent and grandchild relationships.

### *Summary*

It appeared that grandparents and grandchildren built their relationships by engaging in leisurely activities. A notable finding was that many of the leisure activities that grandparents and grandchildren participated in together involved physical activity, whether actually playing or practicing together, or simply supporting one another in such activities.

### **Grandparents as Aging Role Models**

Embedded within the sentence completion task and the conversation about children's grandparents were questions relating to the children's outlook on their own aging. Specifically, one of the prompts in the sentence completion task was, "When I am old..." and questions such as, "What is your life going to be like when you are old?" were incorporated into the final part of the interview.

Children generally viewed their own aging as a positive prospect. Throughout the interview, some children hinted at the thought that aging might be boring and not looking forward to being old, though the majority of children viewed themselves as being active, involved in a variety of activities, and having close relationships with other family members. Much of what children discussed were reflective of their grandparent's current lifestyles. Children perceived their grandparents as spending a lot of time with their family and was something children aspired to do when they are old. They also envisioned their lives to be

full of a variety of activities, just as their grandparent's lives currently are. Children's grandparents served as models of aging for them. Such role model effects could be attributed partially to joint participation in activities and the strong relationships they have built with one another. Children perceived their own aging in terms of time with family, participating in activities, and similar to their grandparent's lives.

### ***Family***

Children viewed their lives as older adults as having close relationships with their families with frequent visits with family and other friends. Children saw themselves as helping their grandchildren and teaching them things. Jenny offered, "I would have grandchildren then, and they would probably visit sometimes." Her sister, Nicole shared:

I would like to be visited a lot I think...because I would just like to be able to like be with people that I know and talk with them and have dinner and stuff...well I love animals and it would be fun for my kids and grandkids to be able to play with animals and learn about them.

Chris added with detail:

I would help my grandchildren with things...like now my mom and dad just help me with homework and then probably when I get old I want to help my grandchildren with their homework and things or situations they're in with their parents or friends.

Perhaps because their grandparents spoil them now, children saw themselves as spoiling their grandchildren when they are older. Hannah looked forward to visiting with her grandchildren and, "spending time with them a lot and spending money on them and spoiling them." Caitlin acknowledged that it is impossible to predict her future but stated anyways:

Well I can't actually say so I'm going to hope that my life will be good, and I'll probably have like good granddaughters or kids, and hope that I'll have good money to spend time with them and buy them good stuff like she [grandmother] does for me.

Children clearly viewed their lives as older adults as a time of being close with their other family members. Children perceived their own grandparents as spending a lot of time with their families, and they had positive feelings about their time with grandparents, which could help account for their thoughts of being close with family when they are older.

### *Activities*

Children imagined themselves as participating in a variety of activities during their aging including skydiving, sports, having pets, and travel. Some pictured themselves being involved in sport like their grandparents, while others mentioned art as an activity they see themselves engaging in. Children's positive associations with their grandparents seemed to be influencing their ideas of what old age will be like. Justin shared:

I saw a movie called *Bucket List* and two old people went skydiving, and I always wanted to go skydiving, and I thought it would be awesome if like I could go skydiving when I am old, and if I die, then my last memory would be going skydiving...[my life is going to be] exciting, athletic, fun, happy.

Jacob aspired to be atypical and commented, "I'm going to be active and play like sports and stuff." Nicole shared, "I would like to have a farm, that'd be cool...I will probably be like taking care of the garden and doing some taking care of the animals with some help probably." Hannah said when she is older she will, "...go to like famous countries that have cool things like France, Paris, Italy, England, Spain, and then after I do that I'm going to go

learn Spanish, and then play a sport hopefully.” Caitlin also wanted to be active like her grandmother and said, “If I could I would try to do something so that I can get more active...if my bones are still strong as could be.” Jenny did not mention sports but wants to be artistic like her grandmother is and said, “Well probably I’ll know how to sew better than I do now, and paint stuff.”

Based on the above comments, children appeared to imagine themselves participating in a range of activities, many of which are physically active or require physical strength and energy. Some activities were less active which may reflect how they perceived their grandparents. Of important note though is that a few children did recognize that there might be limitations to participating in these activities. Caitlin recognized limitations and suggested that she wants to be more active if her bones are strong enough. Nicole shared that she has aspirations to own a farm, but it is likely that she will need help taking care of the animals and that she won’t be able to do it on her own.

Timothy had a clear image of his later years, which was quite similar to his earlier descriptions of his grandfather’s life. He said:

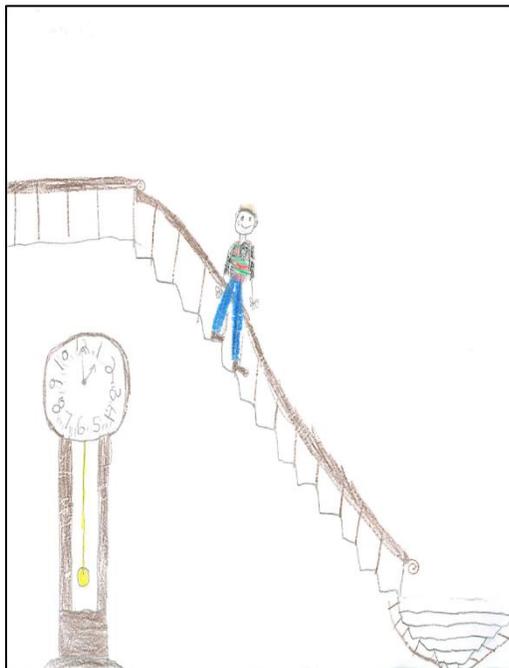
Laid back, I’m going to have a wife, I’m going to have a kid that’s in college, a boy and a girl, very laid back, in a country styled home, like not in the city or anywhere like that, maybe in McGregor or something, kind of like our house right now, but very laid back and easy to move through if anything happens to me or my wife or anything, you break your leg, to have room to get around, I want to be very successful when I’m young so I’ll be able to retire very young and have a lot of money to spend wherever I want, so a good life, yea.

Timothy further explained his retirement. He earlier boasted about how his grandfather has a great life with perks like wealth, and few responsibilities. He elaborated and shared, “Well I’m going to...own an architect business, so when I am old I will most likely sell my architectural business, because I’ll probably retire when I’m 50.” Like others, Timothy also recognized that as people age, health declines and injuries might become an issue, and he mentioned having a home with wide hallways to accommodate for such issues. While children recognized there might be limitations to the sorts of activities they can participate in, they did not hold back from hoping to be active and being involved in a wide variety of doings like their grandparents.

#### *Aspirations to be like Grandparent*

Children and grandparents in this study clearly had a lot of contact with one another and had built strong relationships. Their relationships were supportive of one another, with joint participation in various activities, and much of what they did together seemed likely to further build and strengthen those relationships. Children also had positive associations about their grandparent’s intelligence and personality. Children saw their grandparents as wise, which could support children’s admiration of them. Such relationships seemed to be impacting their outlook on their own aging, as their grandparents were serving as role models of aging. Some children simply stated that they envision their life to be like their grandparents. Michelle shared that she envisioned her life to be exactly like her grandmothers, and Jacob felt the same way about his grandfather. Isaac said, “I want to do what my grandma does; I like to do sports and all that.” Caitlin, relating back to grandparent’s kind personalities, said, “I’ll try to act as nice as could be like my aunts and

uncles and grandmas and grandpas.” Timothy respected his grandfather (see Figure 4.12) and shared that his life will be, “Like my papa, he has a really great life, he doesn’t have to do anything, cleaning or cooking or anything like that.” Timothy clearly admired his grandfather and had aspirations to model his life after him. This seemed true of all the children, and their high level of respect, admiration, and love for their grandparents seemed to serve as a model for their own aging.



*Figure 4.12: “This is [my papa] walking down the stairs...sometimes he goes up there to like just look around and make sure [the guests] are okay...he’s rarely just sitting in the kitchen drinking his wine.”*

### ***Summary***

Most children signified a positive outlook on their own aging. Perhaps the overall positive perception of children’s grandparents has influenced the outlook of their own aging. Having older role models, with whom they interacted frequently and who participated in a

range of activities, both physical and sedentary, who had close relations with their families, and who are seen as generally healthy may impact how they see their future.

### **Summary of Chapter**

Children perceived older adults in a variety of ways. In most ways their grandparents were perceived as similar to other older adults. Some notable differences in the way children perceived their grandparents and other older adults related to their grandparent's personality and their heavy involvement in North Carolina Senior Games and other sports. Sport appeared to be an integral part of their grandparent's lifestyle and it even transcended into their relationships with their grandchildren. Their relationships with one another seemed to be built around support for one another which could account for children's own positive outlook on aging. Their grandparents might be serving as models of positive aging which could have lasting impacts on children.

## CHAPTER 5: DISCUSSION

The older adult population is increasing and there is a high prevalence of physically inactive older adults (CDC, 2011; CDC, 2007). Understanding children's perceptions of aging and older adults is important because their perceptions influence their social, emotional, and physical behavior (Bennett & Gaines, 2010; Newman et al., 1997). Therefore, the purpose of this study was to understand children's perceptions of aging and older adults who have grandparents that are participants of North Carolina Senior Games. Grandparents have the potential to influence grandchildren in positive ways (Attar-Schwartz et al., 2009) so I wanted to learn how physically active grandparents influenced their grandchildren's perceptions of older adults and aging. Three main themes emerged from interviews with children: 1) range of perceptions of older adults, 2) building relationships with grandparents through leisure activities, and 3) grandparents as aging role models.

The contact hypothesis and social cognitive theory were applied to the results of this study. Children's frequent and high quality contact with their grandparents helped to explain the way children perceived aging and older adults. In addition to their interactions and relationships with their grandparents, children were influenced by a variety of other social and environmental factors. The social cognitive theory explained that children interpreted those social messages in their perceptions of aging and older adults.

This chapter has three sections. The first section is a summary and discussion of the findings. The second section presents the implications of the study. The third section discusses the strengths and limitations of the study and directions for future research.

## **Summary of Findings**

The children in this study displayed a broad range of perceptions toward aging and older adults. Children's grandparents who were participants of North Carolina Senior Games were perceived as atypical because of their involvement in sport, but perceived as typical because of their involvement in other more passive and less active activities. They were also perceived as typical because of their physical appearance and because they displayed characteristics and traits similar to other older adults (e.g., being calm, relaxed, and nice).

Children's grandparents were perceived as slightly different from other older adults in that children described positive traits (e.g., having a healthy and athletic appearance, and the amount and quality of time spent with family). Children and grandparents participated in a variety of leisure activities with one another, which helped to build strong and supportive relationships. They imagined their own aging as a time of participating in similar activities and being close with other family members. Children's relationship with their grandparents and how they perceived their grandparent's lifestyle seemed to have influenced how they perceived their own aging.

This study confirmed findings from previous research suggesting that children focus on physical characteristics and physical tasks (Lichtenstein et al., 2003), and that children perceive those related to them more positively than people they do not have relationships with or have background knowledge (Lichtenstein et al., 2005). The findings suggested that children's perceptions of aging and older adults were complex and diverse (e.g., Marks, Newman, & Onawola, 1985), with differences in perceptions of children's own grandparents and other typical adults, including dimensions like physical activities, personality traits, and

physical characteristics. A discussion of each of the three emerging themes follows in relation to literature and the guiding theoretical frameworks.

### **Range of Perceptions of Older Adults**

Children had diverse perceptions of the typical older adult and like other researchers have demonstrated, their perceptions were complex and did not represent a single one-dimensional concept (Marks et al., 1985; Mitchell et al., 1985). As Newman et al. (1997) found, children displayed a wide range of perceptions about aging and older adults. Children perceived older adults as participating in activities ranging from watching television to walking outdoors and as having personalities ranging from nice and happy to sour and grumpy. As McGuinn and Mosher-Ashley (2002) reported, children identified increased knowledge as a cognitive characteristic of growing old.

The most universal dimension in which children perceived older adults was within their physical appearance, where, typical older adults were perceived as having wrinkles, grey hair, and wearing certain types of clothing, as were their grandparents. Though children's grandparents were physically active and physical activity has health benefits, certain physical changes were undeniable as people age, no matter the health and ability of the individual (Saxon, Etton, & Perkins, 2010). Examples include wrinkling of the skin and greying hair. Such inevitable physical changes could account for the reasons why children perceived both their grandparents and typical older adults (Hall & Batey, 2008) in much the same way, even though their grandparents were perceived as healthy as well. Lichtenstein et al. (2005) also reported that a majority of children who drew pictures of older people included wrinkles in their drawing.

Children identified a chronological age when someone becomes old, though their perceptions of this age varied among one another with little consistency. Such little consensus was reflective of how the average person perceives old age as found in past research (Palmore, 1991). Adults have suggested the age at which someone becomes varying from 50 years all the way to 80 years old. Children have also reported similar responses to those in my study, with a range from 35 to 80 years (Davidovic et al., 2007). There is also no legal consensus of what constitutes old as the US Department of Labor identifies 40 years as an “older worker” whereas various senior games organizations define old age as 50 years (Palmore, 1991) or sometimes 55 years as does North Carolina Senior Games. It is not surprising that children had such different perceptions of a chronological age signifying old age.

The variety of ways children perceived older adults could be related to the number of factors influencing their perceptions. Children are exposed to numerous environmental and social factors (i.e., parents, siblings, friends, television characters, and teachers); (Robinson & Anderson, 2006). The social cognitive theory posits that children observe these factors and then reflect on those observations in combination with their own thoughts (Burney, 2008). Because children formulate their perceptions from a combination of their own personal beliefs, experiences, and social influences around them, it seems that one universal image or perception of an older person would be unlikely. The current study found that children’s grandparents did have an influence on their perceptions of older adults, but so did other factors. One child discussed learning about aging in school, and other children mentioned older adults in movies. Other children discussed their grandparents (those who

were involved with North Carolina Senior Games and those who were not), and some identified learning from their parents that asking about age is rude and inappropriate. A combination of environmental factors clearly shaped the ways that children perceived older adults.

Nothing about children's perceptions of aging and older adults appeared to be overtly negative. They also perceived their own grandparents in only positive ways. For example their grandparents were always described as nice, kind, and happy. At times, children spoke of older adults having grumpy personalities or being weak and slow, but such comments did not set the tone of their overall perception. The contact hypothesis posits that contact with a member of an out-group can change attitudes towards the out-group as a whole (Schwartz & Simmons, 2001). It was apparent that children's interactions with their grandparents had some influence on their perceptions of older adults in general. It is important to emphasize that while children did perceive their grandparents to be different from other older adults in some dimensions, they also perceived them to be similar to other older adults in other dimensions. Tam, Hewstone, Harwood, Voci, and Kenworthy (2006) suggested that positive attitudes toward a grandparent are only generalized to the elderly as a whole when that grandparent was seen as elderly. In the current study, children did see their grandparents as having certain traits of older adults, which allowed their optimistic perceptions of their grandparents carry over to their perceptions of other older adults. This finding was reflected in children's inclusion of smiles on figure's faces in their drawings. In a similar study, Lichtenstein and colleagues (2005) found that less than half of the children drew smiles on figure's faces. In my study, nearly all the children depicted their figures as smiling. Their

association of their grandparent as a happy person could have been generalized to their perceptions of typical older adults in this situation.

In conclusion, it appeared that children in my study perceived older adults in much the same way as previous literature has suggested. Such a broad range of perceptions of older adults could be a result of children's individual experiences and knowledge.

Lichtenstein et al. (2005) reported similar results when children did not display strong images of older adults and further consideration was given to children's unique experiences and how they interpreted the events around them. Contact with their grandparent seemed to influence their perceptions of older adults, though there were instances where their grandparents were perceived differently, an example being their participation in physical activity.

### ***Healthy Aging***

It could be argued that children's grandparents were taking part in successful aging because of their high involvement in sport and North Carolina Senior Games as physical activity can reduce health problems, promote healthy bones, muscles, and joints, and reduce weight in addition to having psychological benefits (Johnson et al., 2006). Sport and involvement in North Carolina Senior Games were described as important in the children's grandparent lives. Not only were grandparents taking part in successful aging, but their grandchildren perceived them as successfully aging. Overwhelmingly, children were proud of their grandparents' involvement in North Carolina Senior Games and spoke of their grandparent's active lifestyle. Some even recognized that their grandparent's physical activity will keep them healthy. This health perception was the main difference in the way they perceived their grandparents compared to other older adults. They appeared to think

highly of their grandparent's participation in such events. They sometimes referred to the organization as the Olympics with awe in their tone, and some even stated that they aspired to be active like their grandparents. Children perceived differences between older adults and their own grandparents even among activities that appeared sedentary and passive (e.g., television watching). For example, children described their grandparents' television habits as including programs that were activity focused (e.g., sports).

Children generally perceived their grandparent's physical appearance as different because of their sports involvement. The difference in the way children perceived their grandparents and typical older adults physically was that their grandparents were healthy and in shape and did not rely on assistive devices such as crutches or canes. This difference could be linked back to their grandparents' involvement in physically active leisure. Those grandparents who were more physically active had better health status and physical activity results in body changes including lower weight, increased muscular strength, and improved balance (Johnson et al., 2006). Having such a health status may be one reason children did not perceive their grandparents as using assistive devices such as crutches or canes.

An active lifestyle was not perceived by children as typical for most older adults. Research shows that older adults tend to participate in lower intensity activities such as walking and gardening, but spend less time in other domains of leisure such as physical activity (Janke et al., 2006). Walking is the most commonly reported form of physical activity among older adults (CDC, 2007), so it is not surprising that children made mention of this as an activity regularly engaged in by older adults. Gross (2004) found that children judged older people to be less physically fit than younger people. Children's association of

older adults participating in more passive and sedentary activities could be supported by Behlendorf and colleagues (1999) who found that children perceived physical activities were less appropriate for older adults. Children also identified that older adults generally lose strength and become weaker, a finding that was supported by Gross (2004) and Hall and Batey (2008). The social cognitive theory helps explain why few children associated typical older adults as participating in sport. It is likely that messages from other outlets in society could account for children's association of less activity with old age. For example, ageist jokes and portrayals of older adults on television could have more heavily influenced their perceptions than their grandparents had.

Children's perceptions of their grandparent's heavy involvement in physical active could be a result of their joint participation in physical activities and also have influenced their perceptions of their own aging as grandparents seemed to be serving as aging role models for children.

### **Building Relationships with Grandparents through Leisure Activities**

It appeared that children developed relationships with their grandparents through engaging in leisure activities. High quality contact is essential for the development of positive, or less negative, perceptions (Bousfield & Hutchison, 2010). Children in my study not only had frequent contact with their grandparents, but during that time children participated in a variety of activities with their grandparents including art, cooking and eating, and most notably sports, all where their grandparents were seen as competent and capable. The cooperative nature of the activities engaged in together (Schwartz & Simmons, 2001) might also account for why children and grandparents spent so much time together.

What grandparents and grandchildren do together helps build closeness (Griggs, Tan, Buchanan, Attar-Scwhartz, & Flouri, 2010). Children who have close relationships with their grandparents and engage in activities with their grandparents are also more likely to be influenced by their grandparent's values and beliefs (Anderson, Harwood, & Hummert, 2006). Possibly children's perceptions of their relationships with their grandparents influenced their perceptions of their grandparents and other older adults as the contact hypothesis would suggest.

The leisure-based context of the grandparent and grandchild relationship seemed to influence children's perceptions. Increased opportunities for older adults have led to more independent grandparents (Block, 2000), which did not seem to be the case in my study. Grandparents included grandchildren in their leisure time activities including physical activity. Today's society is fast-paced and less time is spent on family-centered activities (Block, 2000). My study revealed that despite this trend of society, grandparents and grandchildren had built relationships through such leisure activities that older adults were embracing. Leisure became something for grandparents and grandchildren to do together, rather than independently.

Children felt the time spent in joint activities with their grandparents was special. Children perceived their grandparents to be supportive and loving. Children never spoke of their grandparents getting mad or angry, as supportive grandparents typically do not take on the role of authority (Mueller & Elder, 2003). Grandparents supported their grandchildren in leisure pursuits by teaching them and being present at important events and special occasions. Grandchildren did the same. North Carolina Senior Games was one form of

leisure activity that grandparents and grandchildren engaged in together. Children valued this special relationship with their grandparents and could account for children seeing their grandparents as aging role models.

### **Grandparents as Aging Role Models**

Grandparents appeared to play a variety of roles in the lives of grandchildren, but most notably as role models (Block, 2000). Because children participated in leisure activities with their grandparents, their grandparents seemed to be a significant factor in the lives of children (Attar-Schwartz et al., 2009). Their grandparents served as a “frame of reference” (Bekker & Taylor, 1966) for which they perceived their own aging which was reflective of their grandparent’s current lifestyle.

Children generally had a positive outlook on their own aging. McGuinn and Mosher-Ashley (2002) found that children showed little concern over the prospect of aging and suggested that a close relationship with a grandparent contributed to positive attitudes and lessened fear of older adults. Children in my study generally did not show concern, but many seemed optimistic about aging and almost seemed to look forward to it. Children perceived themselves as participating in a wide range of activities in their old age. Lichtenstein et al. (2003) found similar results when middle school students viewed their own aging much more positively than the changes they observed in their parents or other elders.

These results did contradict findings from Golde and Kogan (1958) who found that subjects viewed their own aging negatively or could not even conceive of it though they did suggest that an active life would permit one to deny being old. Other more dated research also suggested children held more negative views toward their own aging (Page et al., 1981).

Over time, there seems to have been a change in how children perceive their own aging. As the contact hypothesis would suggest, it is possible that children's contact with their atypical grandparents have something to do with this shift in how children perceive their own aging.

A general shift in the way society views aging and older people seems to have occurred. It is important to consider that many of the research studies that found children to perceive aging and older adults negatively were conducted decades ago (e.g., Golde & Kogan, 1958; Hickey & Kalish, 1968; Seefeldt et al., 1977), and attitudes in society may have become more accepting of aging and older adults than previously because of older adults' changing profile (Gilbert & Ricketts, 2008). The reason for such a shift in society being more accepting of older adults could be a result of the profile of grandparents, changing over time. Grandparents are younger, healthier, and more socially active than in previous generations (Block, 2000) and have had opportunities to develop recreation habits (Cousins & Gillis, 2005). They are also better educated and wealthier (Gilbert & Ricketts, 2008) resulting in increased awareness and accessibility to more active lifestyles. Grandchildren now are able to interact with and witness grandparents taking on this changing role in society (Kemp, 2007).

Regardless, children imagined their lives as older adults to be reflective of their grandparents. The special relationship that children and grandparents have built with one another would suggest that children look up to their grandparents.

### **Implications**

Findings from this study, as supported by the social cognitive theory, suggest that a variety of factors, particularly relationships with grandparents, influence the development of

children's views on aging and older adults. As suggested by Lichtenstein et al. (2003), perceptions held by children can be used in the development of programs to better educate children about aging and changes over time. Such information will be valuable to organizations such as North Carolina Senior Games as their efforts to promote healthy and active living for older adults may be impacting younger generations as well. Findings may also assist those designing intergenerational programs for the purposes of changing children's attitudes toward older adults. The results are discussed in relation to families, community, media, and education, factors that children discussed as having influenced their perceptions of aging.

### **Families**

Because family influence is one of the first forms of socialization for young children, prior research has suggested that family members should be the focus for teaching healthy and positive attitudes toward older adults and the aging process (Gilbert & Ricketts, 2008; Page et al., 1981). Grandparents in my study served as role models for their grandchildren. Therefore their attitudes, value systems and attitudes were established early in life by their families (Page et al., 1981) and grandparents were influential in their grandchildren's development (Roberto & Stroes, 1992). Even more so than grandparents, parents serve as an initial source of aging information for their children (Gilbert & Ricketts, 2008). Parents play a key role in the grandparent and grandchild relationship, as they serve as mediators (Attar-Schwartz et al., 2009). Parents who have poor relationships with their own parents are less likely to promote grandparent and grandchild contact (Mueller & Elder, 2003). Educating

parents and grandparents that quality time spent amongst generations could have other positive ramifications for children is suggested.

Findings from the study could suggest that one such way to spend quality time is through joint participation in physical and other leisure activities. Children and grandparents had developed close relationships with one another in this way. The recipricosity of grandparent and grandchild relationships, both emotionally and physically, had positive ramifications in this study.

Since younger children tend to have closer relationships with grandparents than do older children and children close to their grandparents have reported less negative perceptions of aging and older adults (McGuinn & Mosher-Ashley, 2002), building support for continued closeness with grandparents during adolescence could be one way to combat the formation of negative aging stereotypes and a fear of one's own aging. It has been suggested that grandparents who are highly involved during early childhood maintain high involvement over time (Barnett et al., 2010). Closeness and active involvement with grandparents has shown impact child well-being (Griggs, Tan, Buchanan, Attar-Schwartz, & Flouri, 2010). Therefore, encouraging grandparents and grandchildren to recreate together is suggested.

### **Community**

Environments for older adults to be physically active are needed within communities to support healthy living (Cardenas et al., 2009). North Carolina Senior Games is an example of such a community based, health promotion organization. The findings of my study suggested that North Carolina Senior Games was an integral part of grandparent's

lives. Children were aware of that importance. Children had knowledge of their grandparent's participation in physical activity, both within and outside of North Carolina Senior Games, children watched their grandparents compete, and children even participated with their grandparents at times. Because so many children had knowledge of and even participated in sports with their grandparents is an important finding for North Carolina Senior Games. The organization's vision was to provide services for adults 55 years and better, but the organization is reaching younger generations as well. Grandparent's participation in North Carolina Senior Games has provided opportunities for younger children to participate in such events, though not formally through the organization, and has allowed children to watch their grandparents and other older adults compete in North Carolina Senior Games sponsored events. Watching grandparents participate and compete in sporting events has been motivational for children and taught them that physical activity can be a life-long pursuit.

These findings have implications for North Carolina Senior Games, but also for other intergenerational programs. Many intergenerational programs that have documented evidence of positive attitude development and change have a focus on meaningful interactions and participation in joint activities (Bousfield & Hutchinson, 2010, Schwartz & Simmons, 2001), though few of these activities have been centered around joint participation in physical activity. The children and grandparents in my study participated in physical activity together on their own time. Intergenerational programs that foster meaningful relationships between older adults and children that also have an emphasis on sport participation or physical activity could add another layer and dimension to developing

positive perceptions of older adults and also on children's own outlook on aging. Programs could bring together grandparents and grandchildren or children and older adults from within the same community. Realistic experiences with active and healthy older people might help to eliminate children's stereotyping of the physical and affective characteristics of age (Seefeldt et al., 1977).

The benefits of intergenerational programming are well-documented (Bousfield & Hutchinson, 2010; Hall & Batey, 2008; Hernandez & Gonzalez, 2008; Hutchinson et al., 2010; Pinguart, Wenzel, & Sorenson, 2000). Providing opportunities for intergenerational contact, preferably high quality contact, can lead to increased frequency of intergenerational contact outside the group (Pinguart et al., 2000) among other benefits. With such an age segregated society (Ory et al., 2003), building confidence for children to initiate interaction with older adults could be a step to bridging the gap between generations. The children in my study all had opportunities for intergenerational contact with their grandparents where grandparents were perceived as physically active. Not all children may have such opportunities and the community could be one outlet that provides such intergenerational contact.

### **Media**

Children are influenced by the media, and the prevalence of negative stereotypes of older adults portrayed in television (Robinson & Anderson, 2006), films (Robinson et al., 2007; Robinson et al., 2009), and advertising (Robinson & Umphrey, 2006) was supported through the current study. While only two children discussed movies that are about older adults, *Up* and *The Bucket List*, their points are worth considering. This finding alone has

implications for the production of media. Children are heavy media consumers and such an outlet has become more centralized in shaping their attitudes and beliefs about the world and views of other groups (Robinson et al., 2009). If more positive stereotypes were portrayed in various forms of media, children potentially could pick up on those stereotypes and perceive older adults in a more positive light.

My study highlighted examples of children remembering and discussing both negative and positive portrayals of older adults in movies. The main character from *Up*, a grumpy man who is not tolerant of children, was drawn by a child as a typical older adult. This character was the first person that came to mind when asked to think about a typical older adult. And though the character transforms into a nice and kind older person by the end of the movie, the child remembered the grumpy and mean version of the character. In contrast, a sky-diving character from *The Bucket List* was seen by a child as inspirational and motivated the child to want to do such a daring activity in his old age. In line with the social cognitive theory, children demonstrated how media, movies in particular, can sway children's views, attitudes, stereotypes, or perceptions in either positive or negative ways.

### **Education**

A limitation of the study was that I did not probe into how much children were learning about aging in their formal education. What I did find though, was that one child mentioned learning about older adults at school, and he retained the information enough to report it back and share it in his discussion of older adults. This finding was consistent with the social cognitive theory that shows that children learn from a variety of sources and are then left to interpret and apply that learning. I do not know if the other children in the study

received similar aging education, or even how formal or casual the education was that the child had received, but him recalling the information and incorporating it into an outside of school activity has implications. Findings from studies examining the outcomes of incorporating aging education into the regular curriculum (Lichtenstein et al., 2001) further support the implications.

Aging education programs and curriculums, to be effective, can occur throughout curriculums, making it easier to implement, but need to begin early in education and continue throughout schooling (Klein et al., 2005). The incorporation of aging education into curriculums not only can help children become aware of misconceptions associated with aging, but can increase their general knowledge about the aging process and learn health-promoting behaviors that may enhance the longevity and quality of life (Pruski et al., 2004). The children in this study all had close relationships with older adults that exhibited behaviors of successful aging, though not all children have such opportunities. Formal education is one avenue to reach these other children as they are at an age where instruction can be used to teach about successful aging and health promotion (Lichtenstein et al., 2005).

### **Strengths and Limitations/Future Research**

The study was limited by its relatively small sample size. Although there were 12 participants in the study, there were only 7 grandparent participants. This was due to five sibling pairs among respondents and this sample could be considered a limitation because of the heavy influence coming from just a few families within all the data.

Children identified at times feeling that the subject of conversation was rude to talk about. Though I encouraged children that there were no right or wrong answers, children's

sensitivity to talking about old age, specifically in relation to their grandparents, could have inhibited them from being completely honest and open. Parents encouraging children to be polite and respectful of their grandparents and other older adults could partially account for children's sensitivity, further supporting the application of the social cognitive theory to this study.

Despite these limitations, the study had several strengths. To date, little empirical research has examined children's perceptions of aging and older adults in the context of physical activity. The results of the study contribute to this line of inquiry and provide more initial research in this scope of study. This information will also be valuable for North Carolina Senior Games as it suggests that their efforts to promote healthy and active living are reaching beyond their target audience. The methodologies used also had strengths. The drawing task was open ended with no prior discussion about aging or potential stereotypes, attitudes, or perceptions. Any bias that I could have introduced was minimized and having children explain their drawings allowed for my interpretation to be more accurate. The sentence completion task was designed to gain a spontaneous response from children, so a bias here was also minimized. The use of three data-collection methods strengthened the study. Regardless of the small sample size, children shared a wealth of valuable information regarding their perceptions of aging and older adults in relation to their grandparents and physical activity.

Because little current research exists regarding this topic of study, further research may serve to garner support for the development of intergenerational programs that bring generations together in the context of physical activity and other joint leisure pursuits. The

research supporting intergenerational contact and programs often highlight older volunteers assisting in classrooms (Hall & Batey, 2004). Findings from this study suggest that bringing young and old together showcasing the physical strengths of older adults may support the development of positive attitudes, stereotypes, and perceptions of older adults among younger children. Children's aspirations to be like their physically active grandparents provide strong support for such implications. Few programs are established that combine intergenerational contact and physical activity. Further research could examine and determine outcomes of existing programs.

My study only took on the perspective of the grandchild. Future research could examine the grandparent's perceptions of their relationship with their grandchild in the context of physical activity. The relationship that grandparents and grandchildren have built seems to positively influence children. Understanding how their physical activity participation has enabled them to build these relationships with their grandchildren could be further information valuable to organizations such as North Carolina Senior Games.

I would also suggest broadening my study to include adolescents. Adolescence is a time when children begin to lose closeness with their grandparents (Attart-Schwartz et al., 2009). Grandchildren and grandparents in my study appeared to have built close relationships with one another. Expanding the study to examine grandparent and grandchild relationships during the time of adolescence could allow researchers to understand how these relationships with physically active older adults affect children as they grow older and enter a time when peers are heavily influential.

## **Final Conclusions**

Grandparent's involvement in physical activity with North Carolina Senior Games appeared to have an influence on children's perceptions of older adults and aging. Though children perceived their grandparents as similar to other older adults on many dimensions, they perceived their grandparents differently than they perceived other typical older adult. If more grandparents and older adults were involved in physical activity, perhaps more children would perceive older adults as children in my study perceived their own grandparents. Considering that children develop, learn, and evolve their perceptions from their families, interactions with other people, influences from media and other institutions, their physically active grandparents can serve as role models with whom children can interact with while in turn influence their attitudes (Page et al., 1981). This was demonstrated by one boy who reflected on watching his grandmother compete in a swimming competition and thought to himself, "One day I can do this, when I grow up, I can do this!"

## REFERENCES

- Aday, R.H., McDuffie, W., & Sims, C.R. (1993). Impact of an intergenerational program on black adolescents' attitudes toward the elderly. *Educational Gerontology, 19*, 663-673.
- American Association of Retired People. (2011). About AARP. Retrieved March 23, 2011, from <http://www.aarp.org/about-aarp/>
- Anderson, K., Harwood, J., & Hummert, M.L. (2005). The grandparent-grandchild relationship: Implications for models of intergenerational communication. *Human Communication Research, 31*(2), 268-294.
- Attar-Schwartz, S. Tan, J., & Buchanan, A. (2009). Adolescents' perspectives on relationships with grandparents: The contribution of adolescent, grandparent, and parent-grandparent relationship variables. *Children and Youth Services Review, 31*, 1057-1066.
- Augoustinos, M., & Rosewarne, D.L. (2001). Stereotype knowledge and prejudice in children. *British Journal of Developmental Psychology, 19*, 143-156.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice Hall.
- Barbato, C.A., & Feezel, J.D. (1987). The language of aging in different age groups. *The Gerontological Society of America, 27*(4), 527-531.
- Barnett, M.A., Scaramella, L.V., Neppl, T.K., Ontai, L., & Conger, R.D. (2010). Intergenerational relationship quality, gender, and grandparent involvement. *Family Relations, 59*, 28-44.

- Beck, F., Gillison, F., & Standage, M. (2010). A theoretical investigation of the development of physical activity habits in retirement. *British Journal of Health Psychology, 15*, 663-679.
- Behlendorf, B., MacRae, P.G., & Vos Strache, C. (1999). Children's perceptions of physical activity for adults: Competence and appropriateness. *Journal of Aging and Physical Activity, 7*, 354-373.
- Bekker, L.D., & Taylor, C. (1966). Attitudes toward the aged in a multi-generational sample. *Journal of Gerontology 21*(1), 115-118.
- Beland, R.M., & Mills, T.L. (2001). Positive portrayal of grandparents in current children's literature. *Journal of Family Issues, 22*(5), 639-651.
- Bennett, T., & Gaines, J. (2010). Believing what you hear: The impact of aging stereotypes upon the old. *Educational Gerontology, 36*(5), 435-445.
- Bernal, J.G., & de la Fuente Anuncibay, R. (2008). Intergenerational grandparent/grandchild relations: The socioeducational role of grandparents. *Educational Gerontology, 34*(1), 67-88.
- Bigler, R.S., & Liben, L.S. (1993). A cognitive-developmental approach to racial stereotyping and reconstructive memory in Euro-American children. *Child Development, 64*, 1507-1518.
- Block, C.E. (2000). Dyadic and gender differences in perceptions of the grandparent-grandchild relationship. *International Journal of Aging and Human Development, 51*(2), 85-104.

- Bousfield, C., & Hutchinson, P. (2010). Contact, anxiety, and young people's attitudes and behavioral intentions toward the elderly. *Educational Gerontology, 36*, 451-466.
- Braithwaite, V.A. (1986). Old age stereotypes: Reconciling contradictions. *Journal of Gerontology, 41*(3), 353-360.
- Burney, V.H. (2008). Applications of social cognitive theory to gifted education. *Roeper Review, 30*, 130-139.
- Butler, R.N. (1989). Dispelling ageism: The cross-cutting intervention. *Annals of the American Academy of Political and Social Science, 503*, 138-147.
- Cardenas, D., Henderson, K. A., & Wilson, B. E. (2009). Experiences of participants in Senior Games among older adults. *Journal of Leisure Research, 41*, 41-56.
- Caspi, A. (1984). Contact hypothesis and inter-age attitudes: A field study of cross-age contact. *Social Psychology Quarterly, 47*(1), 74-80.
- Centers for Disease Control and Prevention. (2009). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
- Centers for Disease Control and Prevention. (2011). How much physical activity do older adults need? Retrieved March 23, 2011, from <http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html>
- Centers for Disease Control and Prevention and the Merck Company Foundation. (2007). *The state of aging and health in America 2007*. Whitehouse Station, NJ: The Merck Company Foundation.

- Charmaz, K. *Constructing grounded theory: A practical guide through qualitative analysis*.  
Los Angeles: Sage Publications.
- Colston, L., Harper, S., & Mitchener-Colston, W. (1995). Volunteering to promote fitness and caring: A motive for linking college students with mature adults. *Volunteerism in Geriatric Settings, 20*, 79-90.
- Couper, D.P., Sheehan, N.W., & Thomas, E.L. (1991). Attitudes toward old people: The impact of an intergenerational program. *Educational Gerontology, 17*, 41-53.
- Davidovic, M., Djordjevic, Z., Erceg, P., Despotovic, N., & Milosevic, D. P. (2007). Ageism: Does it exist among children? *The Scientific World Journal, 7*, 1134-1139.
- Davis, H., Vetere, F., Francis, P., Gibbs, M., & Howard, S. (2008). "I wish we could get together": Exploring intergenerational play across a distance via a 'Magic Box'. *Journal of Intergenerational Relationships, 6*, 191-210.
- Davis, R.H., & Westbrook, G.J. (1981). Intergenerational dialogues: A tested educational program for children. *Educational Gerontology, 7*, 383-395.
- DeForge, V., Zehnder, S., Minick, P. & Carmon, M. (2001). Children's perceptions of homelessness. *Pediatric Nursing, 27*(4), 377-383.
- Devine, M.A., & O'Brien, M.B. (2007). The mixed bag of inclusion: An examination of an inclusive camp using contact theory. *Therapeutic Recreation Journal, 41*(3), 201-222.
- Dionigi, R. (2006). Competitive sport as leisure in later life: Negotiations, discourse, and aging. *Leisure Sciences, 28*, 181-196.

- Dykens, E., Schwenk, K., Maxwell, M., & Myatt, B. (2007). The sentence completion and three wishes tasks: Windows into the inner lives of people with intellectual disabilities. *Journal of Intellectual Disability Research, 51*(8), 588-597.
- Falchikov, N. (1990). Youthful ideas about old age: An analysis of children's drawings. *International Journal on Aging and Human Development, 31*(2), 77-99.
- Falk, U., & Falk, G. (1997). *Ageism, the aged and aging in America: On being old in an alienated society*. Springfield, IL: Charles C Thomas.
- Fischer, D. (1978). *Growing Old in America*. New York: Oxford Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley Publishing Company.
- Gilbert, C. N., & Ricketts, K. G. (2008). Children's attitudes toward older adults and aging: A synthesis of research. *Educational Gerontology, 34*, 570-586.
- Golde, P., & Kogan, N. (1959). A sentence completion procedure for assessing attitudes toward old people. *Journal of Gerontology, 14*(3), 355-363.
- Gross, T.F. (2004). Children's perceptions of and beliefs about facial maturity. *The Journal of Genetic Psychology, 65*(1), 81-97.
- Grusec, J.E. (1992). Social learning theory and developmental psychology: The legacies of Robert Sears and Albert Bandura. *Developmental Psychology, 28*(5), 776-786.
- Gwyther, L.P. (1991). Intergenerational partners project: A model linking elementary students with senior center volunteers. *The Gerontologist, 31*(2), 263-266.
- Hall, K.W., & Batey, J.J. (2008). Children's ideas about aging before and after an intergenerational read-aloud. *Educational Gerontology, 34*, 862-870.

- Harwood, J., Hewstone, M., Paolini, S., & Voci, A. (2005). Grandparent-grandchild contact and attitudes toward older adults: Moderator and mediator effects. *Personality and Social Psychology Bulletin, 31*(3), 393-406.
- Hauwiler, J.G., & Jennings, R. (1981). Counteracting age stereotyping with young school children. *Educational Gerontology, 7*, 183-190.
- Hernandez, C.R., & Gonzalez, M.Z. (2008). Effects of intergenerational interaction on aging. *Educational Gerontology, 34*, 292-305.
- Hickey, T., & Kalish, R.A. (1968). Young people's perceptions of adults. *Journal of Gerontology, 23*(2), 215-219.
- Hoe, S., & Davidson, D. (2002). The effects of priming on children's attitudes toward older individuals. *International Journal of Aging and Human Development, 55*(4), 341-366.
- Hoffman, E. (1979). Young adults' relations with their grandparents: An exploratory study. *International Journal of Aging and Human Development, 10*(3), 299-310.
- Hutchinson, P., Fox, E., Laas, A.M., Matharu, J., & Urzi, S. (2010). Anxiety, outcome expectancies, and young people's willingness to engage in contact with the elderly. *Educational Gerontology, 36*, 1008-1021.
- Hutchinson, S.L., & Lilienthal, R.A. (1980). Advisement to take risk: A study of attitudes toward the old. *International Journal of Behavioral Development, 3*, 19-26.
- Ivester, C., & King, K. (1977). Attitudes of adolescents toward the aged. *The Gerontologist, 17*(1), 85-89.

- Jancey, J.M., Clarke, A., Howat, P., Maycock, B., & Lee, A.H. Perceptions of physical activity by older adults: A qualitative study. *Health Education Journal*, 68(3), 196-206.
- Jingxiong, J., Rosenqvist, U., Huishan, W., Greiner, T., Guangli, L., & Sarkadi, A. (2007). Influence of grandparents on eating behaviors of young children in Chinese three-generation families. *Appetite*, 48, 377-383.
- Johnson, N.L., Hodges, J.S., & Keller, M.J. (2006). Get moving and keep moving: Motivating older adults for participation in leisure time physical activity. *Activities, Adaptation & Aging*, 31(2), 57-71.
- Kemp, C.L. (2007). Grandparent-grandchild ties: Reflections on continuity and change across three generations. *Journal on Family Issues*, 28(7), 855-881.
- Kicklighter, J. R., Whitley, D. M., Kelley, S.J., Shipskie, S. M., Taube, J. L., & Berry, R. C. (2007). Grandparents raising grandchildren: A response to a nutrition and physical activity intervention. *Journal of the American Dietetic Association*, 107, 1210-1213.
- King, V., & Elder, G.H. (1995). American children view their grandparents: Linked lives across three rural generations. *Journal of Marriage and Family*, 57(1), 165-178.
- Klein, D. A., Council, K. J., & McGuire, S. L. (2005). Education to promote positive attitudes about aging. *Educational Gerontology*, 31, 591-601.
- Labouvie-Vief, G., & Baltes, P.B. (1976). Reduction of adolescent misperceptions of the aged. *Journal of Gerontology*, 31(1), 68-71.
- Levy, B. R. (2003). Mind matters: Cognitive and physical effects of aging self-stereotypes. *Journal of Gerontology*, 58, 203-211.

- Levy, B.R., & Myers, L.M. (2004). Preventative health behaviors influenced by self-perceptions of aging. *Preventive Medicine, 39*, 625-629.
- Levy, B. R., Slade, M. D., & Kasl, S. V. (2002). Longitudinal benefit of positive self-perceptions of aging on functional health. *Journal of Gerontology, 57*, 409-417.
- Lichtenstein, M. J., Pruski, L. A., Marshall, C. E., Blalock, C. L., Murphy, D. L., Plaetke, R. et al. (2001). The Positively Aging teaching materials improve middle school students' images of older people. *The Gerontologist, 41*, 322-332.
- Lichtenstein, M. J., Pruski, L. A., Marshall, C. E., Blalock, C. L., Lee, S., & Platetke, R. (2003). Sentence completion to assess children's views about aging. *The Gerontologist, 43*, 839-848.
- Lichtenstein, M. J., Pruski, L. A., Marshall, C. E., Blalock, C. L., Liu, Y., & Plaetke, R. (2005). Do middle school students really have fixed images of elders? *Journal of Gerontology, 60B: 1*, S37-S47.
- Macrae, C.N., & Bodenhausen, G.V. (2001). Social cognition: Categorical person perception. *British Journal of Psychology, 92*, 239-255.
- Marks, R., Newman, S., & Onawola, R. (1985). Latency-aged children's views of aging. *Educational Gerontology, 11*(2), 89-99.
- McGuinn, K.K., & Mosher-Ashley, P.M. (2002). Children's fears about personal aging. *Educational Gerontology, 28*, 561-575.
- McGuire, S.L., Klein, D.A., & Couper, D. (2005). Aging education: A national imperative. *Educational Gerontology, 31*, 443-460.

- McTavish, D. G. (1971) Perceptions of old people: A review of research methodologies and findings. *The Gerontologist, 11*, 90-101.
- Mitchell, J., Wilson, K., Revicki, D., & Parker, L. (1985). Children's perceptions of aging: A multidimensional approach to differences by age, sex, and race. *The Gerontologist, 25*, 182-187.
- Mueller, M.M., & Elder, G.H. (2003). Family contingencies across the generations: Grandparent-grandchild relationships in holistic perspective. *Journal of Marriage and Family, 65*, 404-417.
- Newman, S., Faux, R., & Larimer, B. (1997). Children's views on aging: Their attitudes and values. *The Gerontologist, 37*, 412-417.
- North Carolina Senior Games. (2010). *North Carolina Senior Games*. Retrieved from <http://www.ncseniorgames.org> on August 3,2010.
- Okoye, U.O., & Obikeze, D.S. (2005). Stereotypes and perceptions of the elderly by the youth in Nigeria: Implications for social policy. *The Journal of Applied Gerontology, 24*(5), 439-452.
- Ory, M., Kinney Hoffman, M., Hawkins, M., Sanner, B., & Mockenhaupt, R. (2003). Challenging aging stereotypes: Strategies for creating a more active society. *American Journal of Preventative Medicine, 25*, 164-171.
- Page, S., Olivas, R., Driver, J., & Driver, R. (1981). Children's attitudes toward the elderly and aging. *Educational Gerontology, 7*, 43-47.
- Palombo, J., Bendicson, H.K., & Koch, B.J. (2009). *Guide to psychoanalytic developmental theories*. New York, NY: Springer Publishing Company.

- Palmore, E.B. (1999). *Ageism: Negative and positive*. New York, NY: Springer Publishing Company.
- Palmore, E.B. (2004). Research note: Ageism in Canada and the United States. *Journal of Cross-Cultural Gerontology, 19*, 41-46.
- Penny, H., & Haddock, G. (2007). Children's stereotypes of overweight children. *British Journal of Developmental Psychology, 25*, 409-418.
- Pinquart, M., Wenzel, S., & Sorensen, S. (2000). Changes in attitudes among children and elderly adults in intergenerational group work. *Educational Gerontology, 26*(6), 523-540.
- Punch, S. (2002). Research with children: The same or different from research with adults? *Childhood, 9*, 321-341.
- Riddick, C.C., & Russell, R.V. (2008). *Research in recreation, parks, sport, and tourism* (2<sup>nd</sup> ed.). Champaign, IL: Sagamore Publishing.
- Roberto, K.A., & Stroes, J. (1992). Grandchildren and grandparents: Roles, influences, and relationships. *International Journal of Aging and Human Development, 34*(3), 227-239.
- Robinson, T., & Anderson, C.. (2006). Older characters in children's animated television programs: A content analysis of their portrayal. *Journal of Broadcasting and Electronic Media, 50*(2), 287-304.
- Robinson, T., Callister, M., Magoffin, D. (2009). Older characteristics in teen movies from 1980-2006. *Educational Gerontology, 35*, 687-711.

- Robinson, T., Callister, M., Magoffin, D., & Moore, J. (2007). The portrayal of older characters in Disney animated films. *Journal of Aging Studies, 21*, 203-213.
- Robinson, T., & Umphrey, D. (2006). First- and third-person perceptions of images of older people in advertising: An inter-generational evaluation. *International Journal of Aging and Human Development, 62*(2), 159-173.
- Rowe, J.W., & Kahn, R.L. (1997). Successful aging. *The Gerontologist, 37*(4), 433-440.
- Saxon, S.V., Etten, M.J., & Perkins, E.A. (2010). *Physical change and aging: A guide for the helping professions*. New York: NY, Springer Publishing Company.
- Schmidt, D.F., & Boland, S.M. (1986). Structure of perceptions of older adults: Evidence for multiple stereotypes. *Psychology and Aging, 1*(3), 255-260.
- Schwartz, L.K., & Simmons, J.P. (2001). Contact quality and attitudes toward the elderly. *Educational Gerontology, 27*(2), 127-137.
- Seefeldt, C., Jantz, R. K., Galper, A., & Serock, K. (1977). Using pictures to explore children's attitudes toward the elderly. *The Gerontologist, 17*, 506-512.
- Seefeldt, C., Jantz, R.K., Galper, A., & Serock, K. (1981). Health, happy, and old: Children learn about the elderly. *Educational Gerontology, 7*, 79-87.
- Silverstein, M., & Parrott, T.M. (1997). Attitudes toward public support of the elderly: Does early involvement with grandparents moderate generational tensions? *Research on Aging, 19*(1), 108-132.
- Social Security Administration. (2011). The full retirement age is increasing. Retrieved March 23, 2011, from <http://www.ssa.gov/pubs/ageincrease.htm>

Spratling, R., Coke, S., & Minick, P. (In Press). Qualitative data collection with children.

*Applied Nursing Research*.

Tam, T., Hewstone, M., Harwood, J., Voci, A., & Kenworthy, J. (2006). Intergroup contact and grandparent-grandchild communication: The effects of self-disclosure on implicit and explicit biases against older people. *Group Processes & Intergroup Relations*, 9(3), 413-429.

Tuckman, J., & Lorge, I. (1953). Attitudes toward old people. *The Journal of Social Psychology*, 37, 249-260.

Walker, K., Caine-Bish, N., & Wait, S. (2009). "I like to jump on my trampoline": An analysis of drawings from 8- to 12-year-old children beginning a weight-management program. *Qualitative Health Research*, 19(7), 907-917.

## APPENDICES

## **APPENDIX A: Formal Interview Guide**

Children's Perceptions of Aging: Grandchildren of North Carolina Senior Games Participants

### **Drawing Activity**

*Spoken directions given to child*

1. Draw a picture of a typical older person.
2. Take up the whole paper with your picture.
3. Use colored pencils and/or thin felt-tip colored markers.
4. Do your very best job.

*Follow up probing questions*

1. Tell me about the picture you just drew.
2. How old is this person?
3. Is this person related to you?
4. Why did you draw this person participating in this activity?
5. Tell me about the way this person looks.
6. Tell me about what this person is doing.
7. How does this person differ from you?
8. How do you feel about this person you drew?

### **Sentence Completion Activity**

*Practice prompts*

1. During my free time I like to...
2. My school is...
3. Over the holidays, I...

*Actual prompts*

1. Old is...
2. Old people always act...
3. When I am old, ...
4. Most old people...
5. You know you are old when...
6. You know your parents are old when...

### **Follow-up Questions about Grandparents**

*These questions will be asked regarding the grandparent involved in North Carolina Senior Games*

1. Tell me about your grandparent.
2. What does your grandparent do in his/her spare time?
3. Do you think your grandparent is old?
4. Did you know your grandparent plays {sport}?
5. What is it like to have a grandparent that plays {sport}?

6. When you are with your grandparent, what do you guys do together?
7. Does your grandparent ever talk about playing {sport} with you?
8. Do you enjoy spending time with your grandparent?

## **APPENDIX B: IRB Approval Letter**

From: Carol Mickelson, IRB Coordinator  
North Carolina State University  
Institutional Review Board

Date: July 23, 2010

Project Title: Perceptions of Aging: Grandchildren of North Carolina Senior Games  
Participants

IRB#: 1539-10

Dear Ms. Dern,

The project listed above has been reviewed by the NC State Institutional Review Board for the Use of Human Subjects in Research, and is approved for one year. **This protocol will expire on July 21, 2011 and will need continuing review before that date.**

NOTE:

1. You must use the attached consent forms which have the approval and expiration dates of your study.
2. This board complies with requirements found in Title 45 part 46 of The Code of Federal Regulations. For NCSU the Assurance Number is: FWA00003429.
3. Any changes to the protocol and supporting documents must be submitted and approved by the IRB prior to implementation.
4. If any unanticipated problems occur, they must be reported to the IRB office within 5 business days by completing and submitting the unanticipated problem form on the IRB website.
5. Your approval for this study lasts for one year from the review date. If your study extends beyond that time, including data analysis, you must obtain continuing review from the IRB.

Sincerely,



Carol Mickelson  
NC State IR

## **APPENDIX C: Email sent by North Carolina Senior Games to recruit participants**

Dear Senior Games participant,

We hope you are coming to State Finals this fall as a participant or volunteer and look forward to seeing you there. I am writing to tell you about an exciting opportunity.

Liana Dern, a graduate student at NC State in the Parks and Recreation program and part-time employee of NCSG, is studying the influence that YOU have on the perceptions of aging held by younger generations.

To maintain a consistent and specific subject population for the study, interested participants must meet the following criteria:

1. Your grandchildren are between the ages of 7 and 11.
2. You participate in a physically active component of North Carolina Senior Games (at least one of the following: discus throw, shot put, standing or running long jump, archery, bowling, cycling, football throw, golf, softball throw, spin casting, swimming, badminton, billiards, bocce, croquet, horseshoes, racquetball, shuffleboard, table tennis, tennis, track, basketball, softball, or cheerleading).
3. You typically see your grandchild on at least a monthly basis, but do not live with your grandchild nor are you the primary caretaker of your grandchild.
4. Your grandchild lives in the Wake County area or Carteret County region.

If you are interested in being part of this study, please respond to this email to let us know. The remaining steps will be:

- Liana will call you to discuss the details and ask permission to contact your son or daughter to discuss the possibility of their child participating.
- If your grandchild does participate, Liana will spend about an hour with them to ascertain their perceptions of the aging. All information will remain strictly confidential.

So, if you are interested and you fit the above criteria, please respond to this email and Liana will contact you to discuss things further.

Thanks for taking the time respond. We look forward to changing the lives of our future generations by promoting healthy and active living!

**APPENDIX D: Parental Consent Form -Youth Interviews**

I understand that my child has been asked to participate in a research study with the following objectives: to understand children’s views on aging as well as to understand children’s perceptions of having a physically active grandparent to see if it influences children’s views on aging.

Participation in this research is voluntary.

I understand that Liana Dern will interview my child for about an hour. With my permission, the interview will be audiotaped. She will ask my child to draw a picture of a typical older adult and then answer questions about the picture. She will also ask my child to participate in a sentence completion exercise and then answer questions about his/her grandparent’s participation in physical activity. My child has the right to refuse to answer any questions, and will not be penalized in any way for not answering. All information in the study records will be kept strictly confidential. Data will be stored securely in Liana Dern’s computer/office, which are locked. In the final research report, individual responses will be described, however all unique identifiers will be removed and in all cases pseudonyms will be used. Audio-tapes and other interview notes will be coded and securely stored away from the study setting in the principal investigator’s office. One year after the conclusion of the data collection all tapes will be erased and/or destroyed.

I understand that if I do not give permission for my child to participate, he/she will not be penalized in any way. I understand that this study will not benefit my child directly. There are no foreseeable physical, psychological, financial, social, legal, or other risks to my child from participation in this research study. Opinions he/she provides will be shared with North Carolina Senior Games. Individual responses in this report will be described. However all unique identifiers will be removed and in all names will be replaced with pseudonyms (fake names).

This research study has been reviewed and approved by the Institutional Review Board for the Use of Human Subjects in Research. For research-related problems or questions regarding subjects’ rights, the Institutional Review Board may be contacted through Arnold Bell, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7514, NCSU Campus (919-515-4420) or Matthew Ronning, Assistant Vice Chancellor, Research Administration, Box 7514, NCSU Campus (919-513-2148).

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to allow my child to participate in this study. I know that if I have any questions or concerns, I am free to call Liana Dern at 510-557-2880 or Dr. Jason Bocarro at 919-513-8025.

I have been given a copy of this consent form.

\_\_\_\_\_  
Child’s Name

\_\_\_\_\_  
Signature of parent/legal guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Liana Dern

\_\_\_\_\_  
Date

### **APPENDIX E: Parent Letter to Accompany Interview Consent Form**

Hi! I am a graduate student with the Parks, Recreation and Tourism Management Department at NC State University. I am doing some research on children's views on aging. I am interviewing grandchildren of North Carolina Senior Games participants because I want to understand if having a physically active older person present in a child's life influences their perceptions of aging. North Carolina Senior Games has agreed to let me do this work.

I want to make sure this study accurately shows what children's perceptions of aging are. Therefore, I would like to interview your child to understand his/her views on aging. However, I cannot do this unless I have your permission, your child's permission, and his/her grandparent's permission as well (the grandparent will receive a separate consent form to complete).

If you decide not to let your child participate in this interview, that is no problem. Your child will not be penalized in any way. If you decide to let your child participate, let me explain what will happen in the interview. I will schedule the interview on a day and time convenient for your child. With your child's permission, I will tape record the interview (to help me remember what we talked about, and so I can best understand your child's comments). No one will listen to that tape except for me (and possibly my advisor, Dr. Jason Bocarro). After I am done with the project, I will erase the tape. If your child does not want the interview tape recorded, I will not record it. Your child will not be mentioned by name in my project report. Anything he/she says will be kept absolutely in confidence.

Thank you for your time and assistance. If you decide to let your child participate in this interview, please fill out the attached form (Parental Consent Form – Youth Interviews) and send it back to me using the enclosed, addressed and stamped envelope.

If you have any questions, please feel free to call me, Liana Dern, at 510-557-2880 or Dr. Jason Bocarro at 919-513-8025.

Sincerely,

Liana Dern

**APPENDIX F: Assent Form- Children Interviews**

I understand that I am being asked to participate in a research study to understand children’s views on aging.

I understand that Liana Dern will interview me for about an hour and would like to tape record what I say.

I understand that I have the right to refuse to answer any questions asked. Although this study will not provide any direct benefit to me, I know this study may be used to understand children’s views on aging. What I say will be shared with North Carolina Senior Games, an organization that my grandparent is part of. My name or my grandparent’s real name will not be used in any of the information shared with anyone.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. If I have other questions or concerns about this study, I am free to call Liana Dern at 510-557-2880 or Dr. Jason Bocarro at 919-513-8025.

\_\_\_\_\_  
Signature of participant who is at least 11 years of age

\_\_\_\_\_  
Date

My child has read or has been read this information and they understand their rights in participating in this study. They had all their questions answered to their satisfaction, and they voluntarily agree to participate in this study.

\_\_\_\_\_  
Signature of parent for children of all ages

\_\_\_\_\_  
Date

**APPENDIX G: Grandparent Consent Form -Youth Interviews**

I understand that my grandchild has been asked to participate in a research study with the following objectives: to understand children’s views on aging as well as to understand children’s perceptions of having a physically active grandparent to see if it influences children’s views on aging.

Participation in this research is voluntary.

I understand that Liana Dern will interview my grandchild for about an hour. With my grandchild’s and her/his parent’s permission she would like to tape record the interview. She will ask my grandchild to draw a picture of a typical older adult and then answer questions about the picture. She will also ask my grandchild to participate in a sentence completion exercise and then answer questions about my participation in physical activity. My grandchild has the right to refuse to answer any questions, and will not be penalized in any way for not answering. All information in the study records will be kept strictly confidential. Data will be stored securely in Liana Dern’s computer/office, which are locked. In the final research report, individual responses will be described, however all unique identifiers will be removed and in all cases pseudonyms will be used. Audio-tapes and other interview notes will be coded and securely stored away from the study setting in the principal investigator’s office. One year after the conclusion of the data collection all tapes will be erased and/or destroyed.

I understand that if I do not give permission for my grandchild to participate, he/she will not be penalized in any way. I understand that this study will not benefit my grandchild directly.

There are no foreseeable physical, psychological, financial, social, legal, or other risks to my grandchild from participation in this research study. Opinions he/she provides will be shared with North Carolina Senior Games. Individual responses in this report will be described.

However all unique identifiers will be removed and in all names will be replaced with pseudonyms (fake names).

This research study has been reviewed and approved by the Institutional Review Board for the Use of Human Subjects in Research. For research-related problems or questions regarding subjects’ rights, the Institutional Review Board may be contacted through Arnold Bell, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7514, NCSU Campus (919-515-4420) or Matthew Ronning, Assistant Vice Chancellor, Research Administration, Box 7514, NCSU Campus (919-513-2148).

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to allow my grandchild to participate in this study. I know that if I have any questions or concerns, I am free to call Liana Dern at 510-557-2880 or Dr. Jason Bocarro at 919-513-8025.

I have been given a copy of this consent form.

\_\_\_\_\_  
Child’s Name

\_\_\_\_\_  
Signature of grandparent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Liana Dern

\_\_\_\_\_  
Date

### **APPENDIX H: Grandparent Letter to Accompany Interview Consent Form**

Hi! I am a graduate student with the Parks, Recreation and Tourism Management Department at NC State University. I am doing some research on children's views on aging. I am interviewing grandchildren of North Carolina Senior Games participants because I want to understand if having a physically active older person present in a child's life influences their perceptions of aging. North Carolina Senior Games has agreed to let me do this work.

I want to make sure this study accurately shows what children's perceptions of aging are. Therefore, I would like to interview your grandchild to understand his/her views on aging. However, I cannot do this unless I have your permission, along with your grandchild's permission and his/her parent's permission as well.

If you decide not to be part of this research study, that is no problem. You or your grandchild will not be penalized in any way. If you decide to participate, let me explain what will happen in the interview with your grandchild. I will schedule the interview on a day and time convenient for your grandchild. With your grandchild's permission, I will tape record the interview (to help me remember what we talked about, and so I can best understand your grandchild's comments). No one will listen to that tape except for me (and possibly my advisor, Dr. Jason Bocarro). Your grandchild will draw a picture of a typical older adult and then answer questions about his/her picture. He/she will also participate in a sentence completion exercise and answer questions about your participation in physical activity. After I am done with the project, I will erase the tape. If your grandchild does not want the interview tape recorded, I will not record it. Neither you nor your grandchild will be mentioned by name in my final research report. Anything he/she says will be kept absolutely in confidence.

Thank you for your time and assistance. If you decide to participate in this research study, please fill out the attached form (Grandparent Consent Form – Youth Interviews) and send it back to me using the enclosed addressed and stamped envelope.

If you have any questions, please feel free to call me, Liana Dern, at 510-557-2880 or Dr. Jason Bocarro at 919-513-8025.

Sincerely,

Liana Dern