

**TRANSITIONING A LIVING-CENTER: RESIDENT ABILITY AND
PREFERENCE IN ACTIVITY PROGRAMMING**

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AND PREFERENCE IN ACTIVITY PROGRAMMING

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ABSTRACT

Gerontologists have noted the importance of physical fitness (McPhee, et al., 2004), socialization (Lang & Baltes, 1997), and cognitive maintenance (McDougall, 2000) to successful aging. Due to this, Assisted-Living Facility (ALF) Activity Departments serve an essential role in residents' lives, encouraging engagement and aiming to improve life satisfaction.

Willowtree is an independent-living facility planning to transition into an ALF. This study sought to discover the existence of a relationship between Willowtree residents' activities of daily living/instrumental activities of daily living (ADL/IADL) functionality and their enjoyment levels with current activity programming. Residents' preferences with activity type, time of day, frequency, and duration were also explored. The sample consisted of 54 participants, 55-100 years of age, who were residents of Willowtree. Findings indicated that both ability level and personal preference influence participation in Willowtree's discretionary activity programming. Recommendations for activity programming and staff were discussed, as were the limitations of the study.

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The cited literature in this study states that social support can greatly influence one's daily functioning and quality of life. The researcher finds this information to be all too true. For it was the encouragement, faith, and support from her husband, Todd, family members, and friends, that drove the researcher to complete this project and earn her Masters of Science degree.

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Finally, the researcher would like to dedicate this project and her master's degree achievement to her parents and grandmothers, as all had a hand in shaping her interests for the field of gerontology.

TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES.....	viii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. LITERATURE REVIEW.....	3
Assisted Living Facilities.....	3
Activities of Daily Living	4
Successful Aging	5
Discretionary Activities	8
Willowtree Background	17
Purpose of Study	19
CHAPTER 3. METHODOLOGY	21
Participants.....	21
Measurement	22
Procedures	25
CHAPTER 4. RESULTS.....	27
Katz Basic ADL and Lawton and Brody IADL	27

Activity Programming, Activity Enjoyment	27
Activity Enjoyment and ADL/IADL	28
Time, Frequency, and Duration.....	30
Reasons for Disengagement	31
CHAPTER 5. DISCUSSION.....	33
Recommendations.....	36
Limitations of Study	42
REFERENCES CITED	45
APPENDIX A. CONSENT FORM	59
APPENDIX B. RESIDENT ACTIVITY AND ABILITY SURVEY.....	62
APPENDIX C. SCORING, MODIFIED LAWTON AND BRODY IADL SCALE	69
APPENDIX D. SCORING, KATZ BASIC ADL SCALE.....	71
APPENDIX E. NDSU IRB APPROVAL LETTER.....	72
APPENDIX F. ORAL PRESENTATION TRANSCRIPT	73
APPENDIX G. ADL/IADL ITEM SCORES.....	75

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Demographics	22
2. Activity Enjoyment	28
3. Activity Enjoyment with ADL, IADL Correlation Summary	30
4. Reasons for Not Engaging in Willowtree Activity Programming	32
5. Activity Recommendations Based on Reasons for Not Engaging in Activity Programming.....	41

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Preferred time of day activities are held	30
2. Preferred amount of activities offered each week	31
3. Preferred duration of activities	31

CHAPTER 1. INTRODUCTION

In congruence with the growing aging population, the number of assisted living facilities has increased dramatically in recent years. Experiencing an annual growth rate of 20%, assisted living facilities (ALFs) are the fastest-growing type of senior housing in the United States (Cummings, 2002). These cost-effective alternatives to nursing homes provide housing to over one million elders (Ball et al., 2004). One of the reasons ALFs are attractive to elders and their families is the opportunity for “aging in place”. This feature allows residents to remain in the facility as their dependence grows (Lieberman & Rudder, 2006), reducing the stress, confusion, and social network disruption residents may potentially experience from moving into a different facility.

Willowtree¹ is a 77-apartment, independent-living facility currently offering pharmaceutical and clinical services, pastoral care, leisure activities, and continental breakfast. Tentatively, Willowtree will be gradually transitioning into an assisted living facility. To initiate the conversion, administration has given the Willowtree Activity Department directives to expand the daily Activity Programming.

While current literature stresses the importance of physical fitness (Jancey, Clarke, Howat, et al., 2008; Britton, Shipley, Singh-Manoux, & Marmot, 2008), cognitive stimulation (McDougall, 2000; Singer, Lindenberger, & Baltes, 2003; Troyer, 2001), sensory therapy (Flood & Scharer, 2006), socialization (Glass, Mendes de Leon, Marottoli & Berkman, 1999), and creative expression (Fisher & Specht, 1999) for successful aging, few studies can be found pertaining to resident engagement in discretionary activities at living facilities. This area deserves focus, as aging individuals select the activities in which

¹ Name has been changed to ensure confidentiality of the facility and its residents

they are willing to invest time and attention. Activities are goal-related (Gärling & Garvill, 1993), and the quality, or value, attached to a discretionary activity affects residents' willingness to participate and reflects their priorities. The motivation residents apply to Activity Programming engagement can provide Activity Directors at Assisted-Living Facilities (ALFs) insight into the structure of residents' daily lives.

The purposes of this study were to examine residents' activities of daily living (ADL) and instrumental activities of daily living (IADL) ability levels, to identify residents' preferences for Willowtree Activity Programming activity type, time of day, frequency, and duration, and to discover the influences residents' ADL and IADL functioning have on their preferences and participation in Willowtree Activities.

CHAPTER 2. LITERATURE REVIEW

Assisted Living Facilities

Providing housing to over one million people (Ball et al., 2004), assisted living facilities (ALFs) are the fastest-growing type of senior housing in the United States. The assisted living model has grown, and will continue to grow in popularity due to a mix of consumer demand, economic realities, technological advances, regulatory adaptation, and competition in the larger framework of aging services (Regnier, 2002). The National Center for Assisted Living (2006) expects the ALF industry to expand two-fold over the next decade.

Most ALFs provide or arrange for 24-hour staffing, meal provision, activities, personal care assistance, medication setup and administration, housekeeping, and laundry (Cummings, 2002). This form of residential living environment has become the predominant service choice for elders (Hrehocik, 2008) most likely due to its “non-institutional” and “aging in place” philosophy. ALFs enable older adults to live semi-independently in private apartments, and residents have the opportunity to remain in the facility as his or her dependence grows (Lieberman & Rudder, 2006). Aging in place may preserve residents’ independence and help them maintain their identity, providing freedom of choice and the opportunity to age with dignity, privacy, and respect (Hrehocik, 2008).

Few studies can be found in literature that address residents’ enjoyment with independent and assisted-living facility Activity Departments. It has been reported that such facilities offer social activities which make autonomy more practical for residents and improve their quality of life (Jenkins, et al., 2002). In a survey of 13 living-facilities, Sikorska (1999) found the strongest predictor of residents’ quality of life to be a cohesive

social climate, followed by family contact, and participation in social activities. Similarly, Cummings and Cockerham (2004) discovered that ALF activities which fostered social interactions and relationships aided in preserving residents' psychological well-being. Organized social, discretionary activities clearly serve a purpose in Activity Programming. However, despite the rapidly increasing presence of ALFs in the field of care facilities, a relatively small amount of research has been conducted on their Activity Departments, and even less pertaining to reasons for activity engagement and enjoyment from the residents' perspective.

Activities of Daily Living

Generally, assisted-living residents receive assistance for 16-hour long days, comprised of four activities of daily living (ADL), three instrumental activities of daily living (IADL), and a handful of discretionary activities. Examples of each activity type include ADLs (bathing, toileting, eating); IADL (housekeeping, washing laundry, paying bills); discretionary (watching television, attending a party, playing cards). Gender can affect activity frequency, as women spend more time performing IADLs than men, and men engage in more passive discretionary activities than women. On average, residents partake in 13 different activities (ADL, IADL, and discretionary) during the day (Horgas, Wilms & Baltes, 1998).

In a study of living-facility residents' daily activities conducted by Horgas, Wilms & Baltes (1998), age had the most consistent bivariate effect on activity frequency, duration, and variety. Elders over the age of 90 showed considerably less active discretionary activity engagement than did their younger peers. These oldest-old spent less time performing IADLs and more time engaging in passive discretionary activities than did

participants in their 70s. With the significant growth of America's aging population, there is an increased focus on the importance of maintaining independent living, and aging successfully. People are living longer and are generally in better health than at any other time in history (Perls, 2004; Manton, XiLiang, & Lowrimore, 2008).

Successful Aging

Depending on the area of focus, the definition of successful aging can take on a biological, psychological, or sociological slant. Flood (2002) described successful aging as one's perception of a favorable outcome in adapting to the cumulative physiologic and functional alterations associated with the passage of time, while experiencing spiritual connectedness, a sense of meaning, and purpose in life. Since the definition is multidimensional, for the purposes of this study elements based on Schmidt's (1994) and Rowe and Kahn's (1998) definitions will also be incorporated. Along with adaptation, successful aging involves having low risk of, or controlled, disease and disability, along with an engaged lifestyle.

Aging is a life-long process. The state at which individuals arrive at old age is determined by lifestyle choices and their ability to manage any disease or disability. While maintenance of functional ability and absence of chronic illness are important, these are not the only components of successful aging. Amongst many other factors, successful aging can be influenced by genetics (Glatt, Chayavichitsilp, Depp, Schork & Jeste, 2007), character, and personality (von Faber, Bootsma-van der Wiel, van Exel, et al., 2001).

In the recent past, researchers have advocated for more importance to be placed on quality of life for elderly adults. According to Lawton (2000), quality of life is comprised of four components within any individual: behavior competence (i.e., leisure behavior),

environmental quality, self-analysis of quality of life, and general psychological well-being (i.e., happiness, morale, life satisfaction). Analysis indicates that active engagement in society is a key component to successful aging (Rowe & Kahn, 1997).

Care facilities such as ALFs support residents' independence, choice, and control in nurturing, community-living settings (Kane, 2001). An ALF environment provides opportunities for older individuals to participate with others, and engage in self-enriching, meaningful activities and relationships. Such opportunities have been linked with higher resident morale and life satisfaction (Mitchell & Kemp, 2000). Older adults who take part in their external environment are considered to be more successful than those who refrain from such tendencies (Horgas, Wilms, & Baltes, 1998).

Characteristics associated with successful aging have been examined extensively, including: marital status (Bowling & Iliffe, 2006), working for pay (Ross & Bird, 1994), volunteering (Borgonovi, 2008), moderate to high levels of physical fitness (Britton, Shipley, Singh-Manoux, & Marmot, 2008), social support (Montross et al., 2006; Seeman, Lusignolo, Albert & Berkman, 2001), creativity (Fisher & Specht, 1999), spirituality (Crowther, Parker, Achenbaum, Larimore, & Koenig, 2002), and low levels of tobacco use (Depp & Jeste, 2006). Furthermore, life satisfaction levels can be associated with socioeconomic status, gender, and race; people with lower incomes are less likely to achieve successful aging because of a higher prevalence of health risk factors (Flood & Scharer, 2006), women are more likely to experience successful aging than men, and Caucasians have higher levels of successful aging than minorities (Depp & Jeste, 2006).

Individuals who feel, act, and think without impairment can justify defining themselves differently than their cohorts (Levy & Myers, 2004). Self-identification as

“old” is based on criteria other than chronological age, and those who exhibit good physical health, functional performance, clarity of mind, activity, and creativity can actually escape the stereotype of typical old age. Kuypers & Bengtson (1984) found that older people can redefine their age after experiencing and adapting to changes in physical and social functioning, and these self-descriptions result in self-fulfilling prophecies. Seniors who exhibit positive self-perceptions have the tendency to be more engaged in preventive health behaviors, and thus, experience better long-term health and recovery from disease (Levy & Myers, 2004).

Functional performance is the grouping of physical, psychological, social, occupational, and spiritual activities people carry out in the normal course of their lives (i.e., ADLs, IADLs, discretionary leisure activities) (Flood & Scharer, 2006). Individuals who have successfully aged, and have a better quality of life, tend to cope better with the physiological changes in their lives by using functional performance mechanisms (Ford, et al., 2000). An individual with vision impairment who purchases a video magnifier to assist with reading and looking at pictures, would be portraying an example of functional performance mechanism utilization. This person has taken steps to adapt to their situation, whereas someone with ineffective functional performance mechanization may refuse to ask for help, seek out products, or work with technology. Such avoidance and failure to adapt by the visually impaired individual may lead to symptoms of depression, which are risk factors for cognitive decline (Simone & Haas, 2007). The more innovative seniors are with their ideas and insights, the more successful they may be in implementing positive functional performance mechanisms.

Discretionary Activities

As individuals age, the likelihood of ability and capacity loss increases. ADLs, IADLs, and discretionary leisure activities form a structure for social, physical, and cognitive maintenance (Horgas, Wilms & Baltes, 1998). While ADL/IADL engagement is necessity-driven, some researchers believe leisure activity is motivated by choice, flexibility, spontaneity, and self-determination (Parker, 1981). Others disagree with this ideology for activity engagement. According to Salthouse (2006), the type of leisure activity an individual chooses does not affect their cognition. Rather, cognitive ability is what determines the type of discretionary leisure activities in which one participates.

Social. Social participation can be defined as an individual's investment of physical and psychological resources into socially oriented activities of a sharing or instrumental kind (Lövdén, Ghisletta, & Lindenberger, 2005). This idea implies that an individual is *choosing* to be socially active - a crucial step - as there needs to be a desire by the individual to engage.

Social, productive, and physical activities are the focal areas of activity engagement, and all can be easily found in ALF activity programming. Evidence suggests that social and productive activities, which entail little physical exertion, may be just as beneficial to successful aging as physical activities (Glass, Mendes de Leon, Marottoli & Berkman, 1999). Aging individuals need to recognize the gains to be had from engagement in each area, as each form of activity complements the other and provides additional health benefits.

Some aging individuals perceive investments in social contacts to be coping mechanisms for staving off loneliness, and participation in social activities to bring about

positive self-confidence (Woo, 2008). Social isolation is a strong contributor to low self-esteem and depression in the elderly. Feelings of seclusion may result from developments over time: mobility impairment, medical illness, or economic constraint (Alpert, Miller, Wallmann, et al., 2009). Von Faber and colleagues (2001) found that even when elderly persons' social activities decreased because of physical dysfunction, social contacts continued to be a significant factor and influenced positive self-esteem. Older people benefit from being in contact with others, as increased socialization produces greater satisfaction (Lang & Baltes, 1997).

Simulating activities may help keep at-risk populations of older adults from experiencing declining health, since activity makes up for diminished resources (e.g., career, good health, family) (Jenkins, et al., 2002). Elders generally fail to realize how beneficial and essential discretionary activities (i.e., passive and active activities) are for successful aging. If an individual experiences physical or cognitive impairments, he or she will usually limit discretionary activities. Often this is due to the assumed lack of necessity these activities provide to one's behavioral repertoire (Baltes & Baltes, 1990). Contrarily, a cohesive environment with social activities, low conflict and monthly family contact has shown to improve overall quality of life for living-facility residents.

Spousal characteristics add to the mix of social activity engagement. Poor spousal health influences social integration for a married couple, and if a spouse passes away, the stress and strain of changes in the survivor's life may greatly impinge on activity engagement. However, social activity can reduce psychological distress for burdened spouses or widow(er)s by helping the individual achieve a continuity of lifestyle and stability (Utz, et al., 2002). Seniors may need to increase their social efforts in order to

establish an adequate network, which would ensure social support when needed (Lang & Baltes, 1997). Nevertheless, this task can be troublesome to achieve due to the diminishment of social contacts and social relationships in late life (Lee & Markides, 1990).

When studying residents of an ALF, Cummings (2002) found that the elders' satisfaction with the ALF and the number of social activities offered were two variables significantly related to life satisfaction for the residents. When strong social support was present, participants scored *functional impairment* and *poor health* lower on the scale of importance. Well-being was not directly related to the number of social programs attended, but to the residents' perception of the level of social support they received.

Social activities can become more than “something to do” for elderly. Activities may be used to set goals, reinforce a sense of worth and social status, encourage productivity, and help maintain independence (Glass, Mendes de Leon, Marottoli & Berkman, 1999). While sustained social engagement can act as a safe tool for adaptation or coping, and provide higher levels of psychological well-being for older adults (Utz, et al., 2002), the social activities themselves have been shown to promote higher self-efficacy, improve one's level of social support (i.e., emotional, instrumental, appraisal, and informational support), enhance one's perception of control, and reduce stress (Jenkins, et al., 2002). In addition, when health, age, and sex variables were controlled in Bennett's (2002) study of social participation and mortality, a low social engagement level acted as a precursor for mortality.

It is a necessity that facility personnel strive to maximize functioning and quality of life for their residents. Studies show ALF characteristics can greatly influence resident

participation, and increased activity participation correlates with longer residencies (Tighe, et al., 2008). Facility size, social climate (i.e., how well the facility encourages supportive interpersonal relationships and self-direction), resources, and social programming are determinants of resident social engagement (Voelkl, Fries, & Galecki, 1995).

Productive, Cognition. A common concern for aging individuals is the possible incidence of declining cognitive function. Rowe and Kahn's findings (1998) show declining physical or mental functioning can threaten the opportunity of older adults to live independently, and a loss of autonomy and memory abilities can lead to further functional stress. Longitudinal research has shown cognitive functioning and activity engagement to have a reciprocal relationship with each other (Schooler & Mulatu, 2001); an engaged lifestyle promotes cognitive functioning within the limits of the elder's reserve capacity, and vice versa (Scarmeas & Stern, 2003).

Cognitive skills develop from fluid intelligence, crystallized intelligence, or a combination of the two. Fluid intelligence consists of adaptive thinking and reasoning. Crystallized intelligence consists of the knowledge one has acquired through education and life experience. Researchers have found crystallized intelligence to improve as one ages and fluid intelligence to decline (Thompson & Foth, 2005). However, there is no universal decline in intelligence with increasing age (Schaie, 1994; Schulz & Salthouse, 1999). Thompson and Foth (2005) deduce that each adult experiences declining, stable, and improving cognitive abilities at any and all points within his or her lifecycle.

Since intellectual development in old age is multidimensional and deeply influenced by biological and cultural factors, continuing education or "late-learning" can be successful tools. Continuing to learn in late life has been linked to an enhanced quality of

life, with decreased dependency and increased self-confidence and motivation (Eaton, 2005). Six mental abilities that change with age are vocabulary, verbal memory, numeric skill, spatial orientation, inductive reasoning, and perceptual speed (Willis & Schaie, 1999).

A longitudinal study by Newson and Kemps (2005) found general lifestyle activities to significantly influence both current cognition and cognitive change in older adults. Changes in cognitive functioning and lifestyle (e.g., loss of spouse, social isolation) may be due to a decline in the individual's neurophysiological vitality (Lövdén, Ghisletta & Lindenberger, 2005). As oftentimes stated, greater participation in physical, social, and intellectual activities can lead to higher levels of cognitive performance (Hultsch, et al., 1999). However, Stern (2002) suggests an engaged lifestyle might also provide greater readiness for changes in response to neurophysiological decline. Seniors need to be cognizant of any changes in their sensory functioning. Such changes can indicate unusual nervous system activity, which can affect physical and cognitive capacities (Anstey & Smith, 1999). Sensory functioning and activity engagement make up a large portion of the age-related variance in cognitive change (Newson & Kemps, 2005).

Cognitive training programs have shown to improve cognitive functioning in aging individuals (McDougall, 2000; Singer, Lindenberger, & Baltes, 2003; Troyer, 2001). Individuals in their 60s or 70s can actually slow down, halt, or reverse intellectual decline by receiving such training (Baltes & Willis, 1982). The clinical trial Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) showed the effectiveness of cognitive training on 2,000 healthy senior citizens (Ball, et al., 2002). Participants attending ten training sessions on inductive reasoning showed immediate post-training improvements in reasoning skills. Providing the senior attended occasional booster

sessions, researchers identified reasoning skill improvements in participants up to five years after initial training sessions.

Examples of intellectually stimulating training activities include reading, traveling, attending workshops and learning opportunities, completing crossword puzzles, participating in spelling competitions, memorizing poetry, playing card games, surfing the internet, singing in a choir, and putting together jig-saw puzzles. Training sessions should consist of various forms of activities: those led by skilled activity personnel, group activities that are resident-initiated, and activities residents could perform individually.

Everyday problem solving depends on physical and cognitive health, as well as sociocultural factors (i.e., social and environmental factors). Older adults have a significant reserve capacity that permits them to benefit from exposure to performance-enhancing environments (Baltes & Baltes, 1990). Findings from Verhaeghen, Marcoen, and Goossens (1992) verify that memory plasticity exists even into old age. Although cognitive plasticity usually declines as one grows older, an aging brain may be able to generate new neurons from exercise (Kemperman, Kuhn & Gage, 1998), and experience improved functioning from environmental complexity (Greenough, et al., 1986).

ALF residents are often unable to meet everyday competencies needed to live completely independently. Because staff assist with IADLs and ADLs, residents may start to use their mental abilities less to carry out daily tasks. Since residents' competency can decline through disuse (Williams, 2008), participation in regularly scheduled cognitive-focused activities may reduce the speed of decline. It is therefore crucial that the facility provide proper environments for cognitive engagement and promote cognitive training.

Productive, Creative Expressions. Brod and colleagues (1999) propose that well-being contains a sense of aesthetics, involving sensory awareness, appreciation of beauty, and creative expression. Creativity is a means to deal with the limits and uncertainties of life. Evidence has shown the many positive outcomes senior citizens experience from creative activities (Flood & Scharer, 2006). Artistic-based programs can help foster creativity for all ages and ability levels. Kinney and Rentz (2005) found dementia patients to have more interest, sustained attention, and pleasure when creating art. Such activities provide opportunities for elderly with and without dementia to sharpen the capacity of their senses and regain the personal acceptance to act themselves. For aging individuals, using one's creativity does not signify playing with fantasy, but rather assisting with the transformation of their reality (Hannemann, 2006).

Due to the variety and quantity of past experiences, seniors are often able to develop improvisation and imagination to a higher degree than younger individuals. Participating in creative activities not only helps the elder reminisce, relax, and experiment, it also develops skills they can use to form creative solutions for managing any daily problems that may arise (Hannemann, 2006). Adjusting to life in a care facility can be challenging, so it is important that residents are given opportunities to experiment with aspects of their new lifestyle through art, theatrical, and musical therapy.

Depending on the emotional disposition of the individual at the time, art therapy can consist of expressive, productive, inventive, innovative, or emergent creativity (Hannemann, 2006). Visual arts encourage self-expression and engage an older individual through sensory stimulation. Drawing, painting, and crafting are three examples of artistic activities for seniors with physiological or psychological limitations. These activities allow

seniors to participate in the creative process, and the tangible end product allows them to see, and take pleasure in, their creative accomplishments. After four weeks of instruction, seniors receiving theatrical training had greater gains in cognitive and psychological well-being measures than did controlled cohorts not receiving training (Noice, 2004).

Seniors engage in music for a variety of psychological motives, which may involve emotional issues (i.e., mood regulation, pleasure), or matters of identity and belonging (Laukka, 2006). The effects of musical therapy on Alzheimer's disease patients have led some researchers to believe it can increase quality of life (Hilliard, 2003), decrease patients' depressive symptoms, and improve anxiety and restlessness by naturally increasing mood-affecting melatonin levels (Ashida, 2000).

Physical Fitness. In the United States, 51% of adults over the age of 65 are inactive (U.S. Department of Health and Human Services, 2000), with 35% of those adults being 75 years or older (Yan, et al., 2009). It is not uncommon for older adults to limit physical activity and ADLs in an effort to protect themselves from injuries. However, purposely choosing to be inactive is a misinformed decision.

Ory and colleagues (2003) report that 98% of people over the age of 50 are aware that physical activity is important to maintaining optimal health, however, only a minority of senior men and women receive sufficient physical fitness activity. Being aware of their health limitations and after having discussed with their doctor, older adults aged 65+ should experience 150 minutes of moderate-intensity aerobic activity per week (e.g., brisk walking), in addition to performing muscle-strengthening activities two or more days per week (CDC, 2011).

Physical activity can improve sleep, balance, and appetite, aid in management of chronic medical conditions (McPhee, et al., 2004), aid in disease prevention, reduce arthritis and the risk of obesity, prevent age-related musculoskeletal declines (Voorrips, Lemmink, Van Heuvelen, et al., 1993), and slow down or reverse the functional and physiologic declines that result from aging (Leveille, et al., 1999). Physical fitness and nutrition can also affect the non-neural components of the brain, possibly reducing negative, age-related vascular issues like changes in blood flow, oxygen extraction, and glucose transport (Churchill, et al., 2002).

Aerobic fitness training has a positive effect on cognitive functioning in older adults (Colcombe & Kramer, 2003; Rowe & Kahn, 1998); conversely, the lack of physical and cognitive activity is believed to be the root cause of the functional decline in our nation's elderly populations (Maharam, Bauman, Kalman, et al., 1999). In a Lindenmuth and Lindenmuth study (1994), elderly who exercised had improved scores on the cognitive abilities screening test (CAST) compared to controlled cohorts who were not exercising.

Physical activity reduces risk of all-cause mortality for seniors who achieve the recommended levels of moderate-intensity exercise (Jancey, Clarke, Howat, et al., 2008). Promising findings from a Leveille and colleagues study (1999) showed physically active elderly women were more than twice as likely to be free of ADL disability prior to death over the age of 85 than inactive women of the same age.

Lack of physical activity increases one's risk of future falls due to declines in muscle strength, flexibility, balance and stamina (Taylor, Whittington, Hollingsworth, et al., 2003). Each year, one-third to one-half of the population aged 65 and over experience falls, with 30% of this population reporting difficulty with balance and ambulation

(O'Sullivan & Schmitz, 2001). According to O'Brien Cousins (2003), an estimated one-half of all age-related physical regression that seniors experience could have been prevented if they had maintained recommended physical activity levels.

ALFs provide excellent environments conducive to senior physical fitness. Generally, residents can utilize hallways and commons areas for walking or group exercises. It is not uncommon for facilities to offer walking tracks, or to have walking maps available showing distances between points within the facility. While many researchers readily state the importance of facility characteristics on senior physical fitness engagement, Giles-Corti and Donovan (2003) propose that the individual and the influence of his/her social environment are better motivational tools. Because elders usually receive less encouragement for physical fitness (Hayslip, Weigand, Weinberg, et al., 1996) than they do for social or productive activities, social feedback and support oftentimes change behavior and draw elders into participation. Although few studies focus on ALFs being ideal environments for physical fitness engagement, this study recognizes Willowtree as an optimal fitness playground for its residents.

Willowtree Background

Willowtree is currently an independent-living facility sponsored by an Order of Sisters. The structure contains 77 apartments, and at the date of this research, housed 79 residents (Resident Roster, 2012). Willowtree strives to maintain a community-focused facility and stay competitive in its market. In recent years, the needs of the facility's inhabitants have shifted, convincing administration to transition Willowtree into an assisted-living facility (ALF). The facility change will provide additional healthcare services, ADL and IADL assistance, as well as greater options for social, cognitive, and

physical activity engagement. The addition of assisted services will not only help the facility provide watchful oversight to its older adult population, but also allow residents to “age in place,” reducing the stress, confusion, and social network disruption residents may potentially experience from moving into a different facility.

Reasoning and problem solving skills are integral to everyday self-care and independence that enables ongoing residency at Willowtree. When residents’ independence is lost, morale suffers and an onslaught of negativity ensues; namely low self-esteem, depression, and helplessness. Environments that support resident autonomy and promote activity engagement are most favorable, as phlegmatic residents create less desirable living environments and usually require higher care. Willowtree administration recognize the importance of maintaining resident autonomy, as it is directly linked to resident well-being and the financial health of the facility (Lieberman & Rudder, 2006).

Regnier (2002) states retirement community philosophies must recognize the need to first operate as a place for older persons, and second as a place of business. The Willowtree Resident Handbook reads:

We believe that all people are created equal and in the image of God. We are here to serve, to share our best with each resident, and to carry out the Benedictine Mission “That in all things, God may be glorified.” Our goal is to provide or help secure services that meet individual needs. Residents are here for any number of reasons and we encourage you to do as much as you can for yourself. Remaining active, socializing with others, and participating in planned events will help make your experience at Willowtree more meaningful.

Although its elderly tenants' needs have changed, and many will benefit from assisted services, residents remain able to make choices about their daily activities. A therapeutic environment addresses residents' physical, social, and psychological needs. This facility must have public spaces conducive to maintaining physical fitness, socialization, and psychological well-being. Review of Willowtree activity calendars shows daily activities utilizing current space and resources, and fulfilling the following beneficial areas: cognitive stimulation and training, sensory therapy, creative expression and cultural exercises, educational opportunities, social integration, physical fitness, and intergenerational and spiritual opportunities.

Much like an ALF, Willowtree has always attempted to minimize resident isolation through social integration. Certain characteristics of the facility are conducive to engagement, such as its homelike atmosphere and informal activities. However, in order for Willowtree to continue to evolve and stay competitive in its market, stakeholders necessitate a broader understanding of residents' engagement preferences and the factors that influence resident life satisfaction.

Purpose of Study

As it has been shown, various geriatric literature can be found on what constitutes successful aging, and the benefits of physical fitness, socialization, cognitive stimulation, spirituality, creative expression, and other discretionary activities in old age. However, few pieces of literature focus on engagement, and the association between discretionary activity enjoyment and functional ability. Many categories of activities aid in improving quality of life, but little is known regarding whether residents in living-facilities engage in discretionary activities more out of choice, or due to ability. If Activity Departments can

determine the barriers to Activity Programming engagement, they can tailor activities to residents' wants and needs, thus maximizing enjoyment and opportunities for successful aging.

This study aimed to examine residents' activities of daily living (ADL) and instrumental activities of daily living (IADL) ability levels, identifying residents' preferences for Willowtree Activity Programming activity type, time of day, frequency, and duration, and discovering the influences residents' ADL and IADL functioning have on their preferences and participation in Willowtree Activities.

Research questions which guided the study:

1. What type, time of day, frequency, and duration of activities do residents prefer for Willowtree Activity Programming?
2. How do residents' ADL and IADL ability levels influence the discretionary Willowtree Activities in which they choose to participate?

The researcher believes that due to the wide range of interests and abilities of the residents, preferred types of activities, frequency, and duration will vary considerably. Residents' physical and psychological ability limitations are likely to have greatly influenced Activity Programming participation, and will continue to do so. It is anticipated that residents with lower ADL and IADL scores will be less likely to participate in or enjoy high-functioning leisure activities, and will have identified with multiple reasons for not engaging in Activity Programming. Correspondingly, residents with higher ADL and IADL scores will be more likely to participate in and enjoy high-functioning leisure activities, and will have identified with fewer reasons for not engaging in Activity Programming.

CHAPTER 3. METHODOLOGY

Inventory of residents' activity interests, physical functioning ability, and reasons for disengagement were collected. To explore these areas, the researcher used the Resident Activity and Ability Survey (RAAS), Lawton and Brody Scale of Instrumental Activities of Daily Living (Lawton & Brody, 1969), and Katz Basic Activities of Daily Living (Katz, 1983) assessments. Utilization of the RAAS, an anonymous self-report survey, allowed every resident the opportunity to provide truthful responses to health and activity programming questions. Inquiries pertaining to residents' daily activities, functioning performance, and limitations guided the researcher in determining the effects these variables had on leisure activity preferences and engagement. The results from this study may aid Willowtree Activity Department staff in the creation of more resident-focused programming.

Participants

At the time of this study, Willowtree housed 79 residents in 72 apartments (Resident Roster, 2012), with five apartments being vacant or awaiting an incoming tenant. The 79 residents consisted of 15 males (19%) and 64 females (81%). Seven spousal couples resided at the facility. Because Willowtree operates as an independent-living facility, participants were generally able to care for themselves, possibly hiring out minimal assistive services (i.e., housekeeping, laundering). Individuals needed to be current residents of Willowtree and have the ability to read English; no other exclusion criteria existed for participation. Fifty-four participants ranging from 55-100 years of age took part in the study.

Table 1 outlines the demographic breakdown of the study's participants. Data shows the largest group of participants to be widowed (65%) women (83%) aged 81-90 (50%) who received less than or equal to an eighth grade education (33%), have resided at Willowtree between 3-4 years (46%), and rated themselves to be somewhat healthy (67%).

Table 1. Demographics	N (%)
Participants	54 (100)
Gender	
Male	9 (17)
Female	45 (83)
Age Range	
55-70	2 (4)
71-80	16 (30)
81-90	27 (50)
91-100	9 (17)
Marital Status	
Married	14 (26)
Widowed	35 (65)
Divorced	3 (6)
Never Married	2 (4)
Education	
Less than or equal to 8 th Grade	18 (33)
High School, did not graduate	4 (7)
High School, graduated	17 (31)
Higher education, did not graduate	6 (11)
Higher education, graduated	9 (17)
Years of Residency at Willowtree	
Less than 1 year	5 (9)
1-2 years	8 (15)
3-4 years	25 (46)
5+ years	16 (30)
Overall Health	
Very healthy	5 (9)
Somewhat healthy	36 (67)
Somewhat unhealthy	13 (24)
Very unhealthy	0 (0)

Measurement

Survey. Development of the Resident Activity and Ability Survey (RAAS) (Appendix B) included a review of literature on beneficial activities for elderly, review of Willowtree June 2010-June 2011 Activity Calendars, and discussions with Willowtree Staff. Willowtree is currently an independent-living facility, and although its residents may require assistance with a few aspects of self-care (which are currently outsourced by area

agencies), residents are able to make choices about daily routines and which Willowtree Activities they prefer.

The RAAS contained four portions: Demographics, Activity Programming, Activities of Daily Living, and Instrumental Activities of Daily Living. The first portion, Demographics, asked participants questions pertaining to their age, gender, marital status, education, and years of Willowtree residency. The Activity Programming portion followed, containing three sections: Activity Enjoyment; Time, Frequency, and Duration, and; Reasons for Disengagement. Activity Enjoyment asked for participants to report their enjoyment levels with current Willowtree activities. Specific examples of Willowtree activities were listed (e.g., musical performances at the facility), and participants were asked to rate each activity by checking the response most applicable: “I do not enjoy”; “I sometimes enjoy”; or “I enjoy very much”. The second section of Activity Programming was Time, Frequency, and Duration, which asked participants to select their preferences for the time of day activities are held, the number of weekly activities offered, and how long activities should last.

The third section, Reasons for Disengagement, listed a variety of reasons residents may have had for not participating in discretionary activities in the past. The participants were asked to check the response that best pertained to their reasoning for not engaging in Activity Programming; options were “This does not sound like me”, “This sometimes sounds like me”, and “This sounds like me”. Taking into account the reasons most frequently chosen, the researcher planned to make recommendations for more resident-focused activities the Activity Department could implement.

Scales. The two scales included in the RAAS were the Lawton and Brody Scale of Instrumental Activities of Daily Living, and Katz Basic Activities of Daily Living Scale (Appendix B). The researcher modified wording to a few questions on both scales to provide clarity and make them more applicable to the facility. The Lawton and Brody Scale of Instrumental Activities of Daily Living was chosen because of its established use as a baseline assessment tool for geriatric populations (Graf, 2008). This eight-item measure is simple to administer and straightforward, making it easier for elderly participants to comprehend and navigate. The scale assesses everyday functional competence in the elderly: using the telephone, shopping, preparing food, housekeeping, laundry, traveling away from home, taking medications properly, and handling personal finances (Vittengl, White, McGovern & Morton, 2006). All measured areas rely on cognitive and/or physical function. The reliability and validity of this scale have been tested. A Pearson correlation of 0.87 and 0.91 was obtained in multiple studies, as well as high six-month retest reliability of 0.88 (Hokoishi, Ikeda, Maki, et al, 2001). Validity was tested through correlational analysis with four different scales that measure functional status. Correlations were significant at the .01 or .05 level (Graf, 2008).

The six-item Katz Basic Activities of Daily Living Scale assesses an elder's ability to perform activities of daily living independently. It is useful in community-living environments, as it predicts older persons' adaptive capacity (Katz, 1970), and creates a common language for their abilities (Wallace & Shelkey, 2007). Although formal reliability and validity reports of the Katz Basic ADL Scale are not well represented in literature, a study conducted by Brorsson and Asberg (1984) found construct validity to be 0.74 to 0.88. External validity has been shown in the extensive use of the tool in home and

clinical environments to assess the functionality of aging adults (Wallace & Shelkey, 2007).

The self-reported information gathered by the Lawton and Brody Scale of IADLs creates a summary score for each participant, ranging from zero (low function, dependent) to eight (high function, independent); higher scores indicate greater autonomy (Lawton & Brody, 1969). This assessment, included in the RAAS, averages 10-15 minutes for completion.

The Katz Basic ADL Scale uses a dichotomous response format, with “yes” responses earning one point and “no” earning zero. Scores range from zero (two or less indicates severe functional impairment, dependent) to six (high function, independent) (Katz, 1983). This assessment, included in the RAAS, averages 5-10 minutes for completion.

Procedures

Before data collection, this project was reviewed by the researcher’s graduate committee. Upon approval by the committee, the project along with the proposed Resident Activity and Ability Survey and Consent Form were accepted by both the North Dakota State University Institutional Review Board and the Institutional Review Board of the facility’s parenting institution. The researcher needed to adhere to the guidelines for obtaining research from elderly adults; the project showed it could potentially offer direct benefits, posed minimal or no risk to its participants, and that participants could drop out of the study at any time without any repercussions.

Recruitment was carried out in person. The researcher explained the purpose and process of the study over multiple occasions, and via two forms of communication to better

meet the learning styles of the residents. The researcher conversed with Willowtree Staff to find an appropriate time to schedule an oral presentation to the group of residents, and the proposed study was explained at the set time to all Willowtree residents who gathered. Following the presentation (Appendix F), the researcher delivered a packet to 72 of the 77 independent-living Willowtree apartments (five apartments were unoccupied). Distributing one packet per resident, and factoring in spousal dual occupancy, a total of 79 packets were delivered.

Each packet included a written description of the project, a Consent Form (Appendix A), a copy of the Consent Form, and a Resident Activity and Ability Survey (RAAS) faced with an instructional sheet. Along with detailed instructions, this sheet stated the date that completed surveys were due and time periods the researcher was available to answer questions. If residents wished to participate, they were required to complete the Consent Form and RAAS to the best of their abilities.

Participants were given two weeks to complete and submit their documents to the designated dropbox located in the Atrium of Willowtree. After ten days, the researcher delivered a note to all residents' apartments thanking those who agreed to participate, and reminding them of the deadline. After the submission deadline, all papers were reviewed to ensure they had been fully completed, with incomplete documents being discarded.

Throughout the project, residents were assured that no changes could, or would, be made in their residential status at Willowtree as a result of their responses to the RAAS. All collected data was kept confidential, and used solely for the intent of analyzing and improving Willowtree Activity Programming.

CHAPTER 4. RESULTS

Willowtree residents were given two weeks to complete Consent Forms and Surveys. Of the 79 surveys distributed to Willowtree apartments by the researcher, 57 (72%) were returned, with three surveys being incomplete and later discarded.

Katz Basic ADL and Lawton and Brody IADL

Using scoring methods (Appendix C, Appendix D), the researcher compiled data and formulated participant scores for both scales. The resulting ADL ($M = 5.70$; $SD = .69$) and IADL ($M = 6.89$; $SD = 1.31$) scores reveal a seemingly independent population. The Katz ADL scale scores 0-6, ranging from dependent to independent. Seventy-eight percent of participants rated a score of “6”. Of the 22% who scored less than “6”, the most common reported issue was incontinence (83%). The Lawton and Brody IADL scale scores 0-8 for functionality, ranging from low-functioning, dependent to high-functioning, independent. Sixty-seven percent of participants received a “7” or “8” score. Of the 33% who scored lower, the most often indicated difficulty for these *dependent* or *somewhat dependent* participants was shopping independently (70%). Appendix G shows the item scores for the ADL and IADL scales.

Activity Programming, Activity Enjoyment

Within the RAAS, participants were asked to state enjoyment levels for 13 activity categories. Response options: “I do not enjoy” (worth one point), “I sometimes enjoy” (worth two points), and “I enjoy very much” (worth three points). The researcher found averages for each activity category (Table 2), and discovered the highest rated and lowest rated activities in the current Willowtree Activity Programming.

Table 2. Activity Enjoyment

Activity	Do Not Enjoy (N = 54)	Sometimes Enjoy (N = 54)	Enjoy (N = 54)	Average Rating
Spiritual, religious opportunities	2 (4%)	11 (20%)	41 (76%)	2.72
Musical performances at facility	1 (2%)	15 (28%)	38 (70%)	2.69
Educational presentations at facility	7 (13%)	21 (39%)	26 (48%)	2.35
Themed parties at the facility	11 (20%)	13 (24%)	30 (56%)	2.35
Social games that use technology	17 (31%)	18 (33%)	19 (35%)	2.22
Trips to go shopping	17 (31%)	14 (26%)	23 (43%)	2.11
Physical fitness activities	18 (33%)	14 (26%)	22 (41%)	2.07
Activities involving creativity	14 (26%)	23 (43%)	17 (31%)	2.06
Activities that don't use technology	11 (20%)	20 (37%)	23 (43%)	2.04
Trips to musical performances	19 (35%)	19 (35%)	16 (30%)	1.94
Non-musical perform. at facility	19 (35%)	20 (37%)	15 (28%)	1.93
Trips to non-musical performances	22 (41%)	16 (30%)	16 (30%)	1.89
Trips to educational presentations	23 (43%)	17 (31%)	14 (26%)	1.83

Each activity category received a percentage of respondents who “enjoyed” or “sometimes enjoyed” the related activities. Based on the findings, *spiritual opportunities*, *musical performances at facility*, *educational presentations at facility*, and *themed parties* were the highest ranked activity categories. While pinpointing the most valued activity categories is beneficial, all categories seem to play an important part in the facility’s offered Activity Programming. Even the least enjoyed activity category, *trips to educational presentations*, received a respectable amount of “enjoyed” (26%) and “sometimes enjoyed” (31%) ratings. Each activity category appears to have value for some portion of the respondents.

Activity Enjoyment and ADL/IADL

Activity Enjoyment ratings were compared with participants’ ADL scores in separate tables for each activity. The same process was carried out for Activity Enjoyment ratings and IADL scores. The researcher conducted a correlational analysis on the data and prepared scatterplots for each of the 13 activity categories. Table 3 summarizes findings of

the correlation coefficients. A significant correlation in this study would indicate a relationship between ADL/IADL ability levels and Activity Enjoyment. As Table 3 shows, enjoyment in a number of activity categories was found to be significantly related to ability. Of these categories, a higher number were significantly related to IADLs than ADLs.

Trips to listen to musical performances, social games that use technology, trips to educational presentations, physical fitness activities, trips to non-musical performances, and trips to go shopping in local community were the activity categories found to be significant and positively related. This indicates that greater levels of resident functionality correspond to greater levels of enjoyment in these activity categories. Thus, the amount of activity enjoyment residents find with activity categories found to not be significant is a product of factors other than functional abilities.

Significant correlations were found from both the ADL/IADL and Activity Enjoyment comparison for *physical fitness activities, trips to listen to musical performances, and trips to go shopping in local community*. Significant activity categories found in the IADL/Activity Enjoyment analysis and not in that of ADL/Activity Enjoyment included *social games that use technology, trips to educational presentations, and trips to non-musical performances*. Analysis did not identify any categories which were found to be significantly correlated solely with ADL scores; all categories found with significant correlation to ADL were also found to have significant correlation with IADL.

Table 3. Activity Enjoyment with ADL, IADL Correlation Summary

Activity	Activity with ADL rating (r)	Activity with IADL rating (r)
Musical performances at facility	.106	.116
Trips to listen to musical performances	.307*	.331*
Social games that use technology	.020	.353*
Social activities that do not use technology	.055	.081
Educational presentations at facility	.257	.165
Trips to educational presentations	.211	.299*
Physical fitness activities	.322*	.522*
Non-musical performances at facility	.028	.172
Trips to non-musical performances	.268	.297*
Spiritual, religious opportunities	-.023	.036
Themed parties at the facility	.055	.234
Activities involving one's creativity	.032	.251
Trips to go shopping in local community	.310*	.395*

* $p \leq .05$

Time, Frequency, and Duration

Collected preferences from the Time, Frequency, and Duration section of the RAAS are featured in Figures 1-3. Results show the favored time of day for discretionary activities to be held is in the afternoon from 2:30 p.m. - 4:30 p.m. (65%). Participants also preferred between 1-2 activities (48%) and 3-4 activities (43%) to be offered per week, with each occurrence lasting roughly 30-60 minutes (79%).

Figure 1. Preferred time of day activities are held

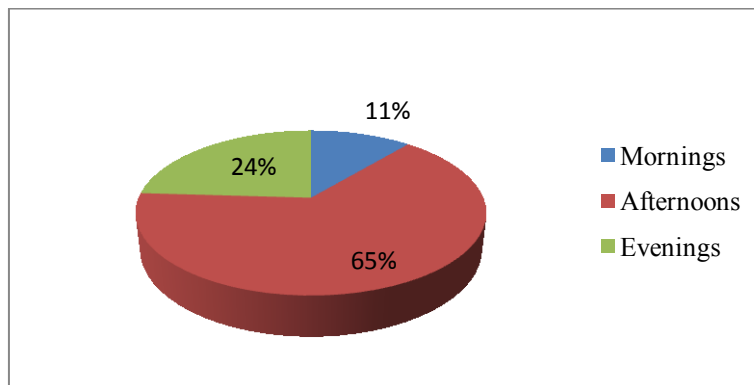


Figure 2. Preferred amount of activities offered each week

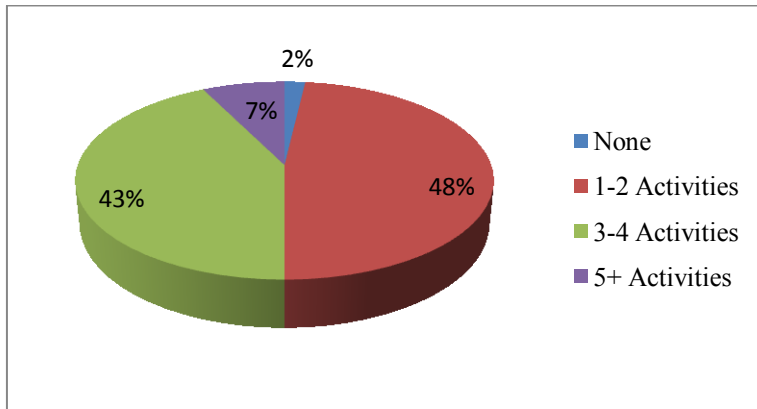
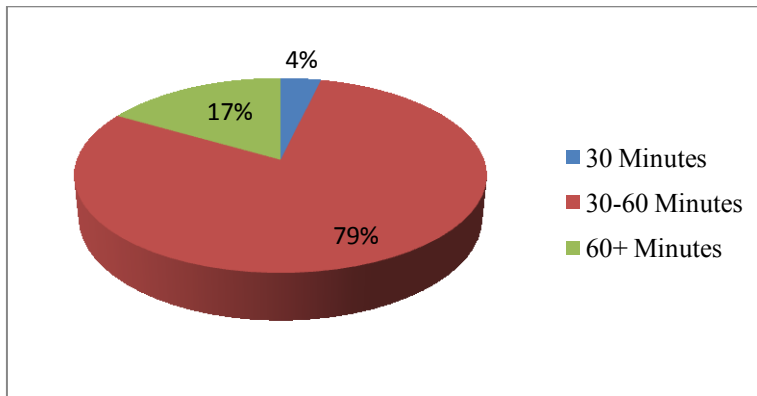


Figure 3. Preferred duration of activities



Reasons for Disengagement

Table 4 lists reasons and shows percentages pertaining to why participants sometimes choose to not engage in Willowtree Activity Programming. Over 50% of participants identified with the reasons *have other engagements at same time*, *have knee and/or foot pain*, and *have back and/or hip pain*. Meanwhile, *I have impaired vision*, *I do not know many people*, and *I do not get along with some residents* were the three least recognized reasons. Only with one activity, *I have impaired vision*, did participants'

number of “sounds like me” answers (11) outnumber those of “sometimes sounds like me” (9).

Table 4. Reasons for Not Engaging in Willowtree Activity Programming

Reason	Does not sound like me	Sometimes sounds like me	Sounds like me	Sum of <i>sometimes</i> and <i>sounds</i> (%)*
Have other engagements at same time	11	31	12	43 (80%)
Have knee and/or foot pain	33	17	16	33 (61%)
Have back and/or hip pain	39	19	12	31 (57%)
Have shoulder, wrist and/or hand pain	46	11	11	22 (41%)
I would rather be alone	33	19	3	22 (41%)
I have incontinence issues	23	15	6	21 (39%)
Activities are during my nap	21	16	5	21 (39%)
I have impaired vision	32	9	11	20 (37%)
I do not know many people	34	8	7	15 (28%)
I do not get along with some residents	32	6	2	8 (15%)

* N = 54

CHAPTER 5. DISCUSSION

This study aimed to identify Willowtree residents' preferences in Activity Programming, and to discover if residents' ADL and IADL functioning levels affected their participation in Willowtree activities. Information gathered from the Activity Programming portion of the RAAS was used to answer the study's first research question: *What type, time of day, frequency, and duration of activities do residents prefer?* (Figures 1-3). Many of the reported RAAS Activity Programming time of day, frequency, and duration preferences match with what Willowtree Staff provided in the June 2010-June 2011 Activity Calendars. While it is wise to continue to offer *some* variety, the findings of this study indicate that a change with Activity Programming time of day, frequency, and duration is not needed at this time.

Correlational analysis answered the study's second research question: *How do residents' ADL and IADL ability levels influence the discretionary Willowtree Activities in which they choose to participate?* Analysis measured the association between RAAS Activity Enjoyment ratings and residents' ADL/IADL scores. The Katz ADL scale does not measure impairments resulting from problems with vision, communication, intellectual function, hearing, or domestic abilities (Hartigan, 2007). Rather, it measures the ability levels needed for daily functioning tasks: mobility, excretion, cleanliness, feeding, and dressing (Wade, 1992). Compared to ADLs, IADLs demand more intricate neuropsychological organization (Spector, et al., 1987) and mental capacity. IADLs are characterized as higher order activities such as housekeeping, food preparation, and medication and financial management that individuals should be able to perform to live independently.

Activities found to be significant in both ADL/IADL and Activity Enjoyment comparisons included *trips to listen to musical performances*, *physical fitness activities*, and *trips to go shopping in local community*. These are understandable findings. All three activity categories showing significant correlation in the ADL/Activity Enjoyment analysis involve higher-functioning mobility skills. *Physical fitness* activities require deliberate movement and a degree of physicality. While walking, boarding transportation, and possibly enduring stairs are realistic happenings for *trips* categories. In regards to IADL/Activity Enjoyment significance, *physical fitness* and *shopping* both exercise cognitive proficiency. *Physical fitness* utilizes hand-eye coordination, recollection of movements, and listening and interpretation skills. *Trips to go shopping* requires residents to use their memory, mathematical and organizational skills, along with a measure of technological savviness. *Musical performances* may produce cognitive stress, such as remembering designated locations (e.g., seats, restrooms) in unfamiliar surroundings.

Activity categories with significant correlation only between IADL/Activity Enjoyment include *social games that use technology*, *trips to educational presentations*, and *trips to non-musical performances*. There is a logical reasoning as to why some activity categories have IADL significance and not ADL. *Using technology* and *educational presentations* both require the use of higher level learning and memory skills. *Non-musical performances* call for residents to follow and comprehend story structure, as well as character development. *Educational presentations* and *non-musical performances* are likely not significantly correlated to ADL scores simply due to the fact that they are generally less well-received, regardless of physical ability level. As indicated in Table 2, these activities received the two lowest average enjoyment scores of all the activity

categories. *Games that use technology* does not demand high functioning physical skills, which explains the lack of significant ADL correlation in this category.

Many of the recommended elements for successful aging can be found in the offered Willowtree activity categories. Cognitive stimulation (Eaton, 2005) opportunities exist in *educational presentations* and in *games that use technology*. Physical fitness (Churchill, et al., 2002) can be found in *trips* outside the facility and in *physical fitness activities*. Socialization (Montross, et al., 2006) is provided in *themed parties, activities that do not use technology*, and in additional categories. Musical therapy (Hilliard, 2003) can be experienced in *musical performances*, while creative expression (Flood & Scharer, 2006) is represented in *activities involving creativity* and *non-musical performances*.

Noting that at least a portion of participants chose to engage in all of the thirteen offered categories of discretionary activities (Table 2), this study has found Willowtree residents and Activity Staff to be active in maximizing the opportunities for successful aging. Furthermore, with 57% of participants “enjoying” or “somewhat enjoying” even the least-often rated activity category, the researcher believes a wide range of activities should continue to be offered at Willowtree and that all activity categories should remain.

Besides activity type, participants also seem to be content with activity frequency, time of day, and duration. This is important to note, as it shows residents are meeting the challenge of their environmental “press”. Lawton (1986) theorized that living-facility residents are exposed to a degree of environmental press which their level of individual skills must meet (Sacco-Peterson & Borell, 2004). If the environmental challenge cannot be personally met, older individuals can develop overwhelming anxiety and stress, and if easily exceeded, they can become lethargic and bored.

The researcher had anticipated that residents with high ADL/IADL scores would be more likely to participate in high-functioning leisure activities than those with lower ADL/IADL scores. Participants scored considerably high numbers on the assessments, indicating independency. While differences were found amongst participants' ability scores and their activity enjoyment ratings, a wider range of functionality levels may have garnered even greater results.

It was also expected that residents' physical and psychological ability limitations strongly influenced their enjoyment with Willowtree Activity Programming. Ability is a factor, with three of the thirteen (ADL/Activity Enjoyment) and six of the thirteen (IADL/Activity Enjoyment) activity categories found to be significant. In addition, some of the most commonly reported reasons for not engaging in Activity Programming stemmed from physical pain (Table 4). Significant activity category results should be similar in future studies.

Based on the reasons chosen, the researcher believes residents' engagement in Willowtree Activity Programming is also affected by factors other than their functioning abilities. While three of the four most commonly chosen reasons were related to physical pain, the most frequently identified reason for not engaging in Activity Programming was actually *have other engagements at the same time*. This ties back to Parker's (1981) belief that older persons' leisure activity is actually motivated by choice, flexibility, and self-determination.

Recommendations

Actions for Staff. According to Requejo Osorio (2008), elders can continue to learn through activities that account for personal characteristics and circumstances. Using

accumulated experiences and previous knowledge develops one's intelligence and introduces new interests. The researcher believes Activity Staff should keep focused on this concept, and cater to what residents understand, or are familiar with, while gradually introducing them to new activities. For residents who do not have prior relevant knowledge in the area of a specific activity, efforts to learn new information may lead to substantial improvements in their cognitive performance relevant to the activity (Hertzog, et al., 2008). Similarly, for individuals with prior knowledge, involvement in a familiar activity may build on previous experiences (Hertzog, et al., 2008) helping maintain the individual's cognitive performance in the activity area.

First, since resident mobility and limited facility transportation are possible concerns, Staff may need to bring a sampling of activities to Willowtree. This way residents could learn about, or discover, an activity they may not have previously known existed. Set up much like a job fair with booths, Staff could coordinate an event at Willowtree with area hobby and recreational clubs, service organizations, and artistic groups to bring community learning and enjoyment opportunities to the residents. Residents may take previous work experience or skills and find they can apply them towards new hobbies, volunteering opportunities, or club involvement (e.g., a retired teacher who used to enjoy painting but has given up the art due to shaky hands could discover an afterschool art program for children that is looking for volunteers). Staff could also record which booths received the most resident attention, and then try to incorporate more of that particular interest into Activity Programming.

Second, it may be beneficial to develop an assessment survey similar to the RAAS and distribute it to residents upon tenancy and subsequently on an annual basis. The tool

would track Activity Programming satisfaction and any changing ability levels of Willowtree residents. The survey should be anonymous, and utilize both closed and open questions to allow residents to expound on ideas and concerns. Residents should also be encouraged to make use of the Suggestion Box located in the facility's Atrium.

Third, little is known about residents' lack of Activity Programming engagement due to financial ability. Many older persons have passed working age and live on fixed incomes. There is a possibility that some residents may feel they would thoroughly enjoy an activity outside of Willowtree but cannot fit event costs (i.e., admission, concessions) into their budget. Staff could determine if this is a common resident issue by incorporating it into the annual survey. The Activity Department could also cover event admission costs to encourage resident participation. If funds were not available in the Activity Department's budget, Staff could organize fundraisers or apply for grants to augment budgetary funds allocated to cover these outing costs. Additionally, Staff should remain cognizant of free events throughout the local communities that would help to mitigate this issue.

Fourth, Staff could implement a process of community venue training. Developing a checklist to use on scheduled tours of community museums, concert halls, parks, and other facilities may help Staff better meet the wants and needs of Willowtree residents participating in outings. Being able to identify optimal locations around town and learning venue layouts may improve residents' satisfaction and interest with outside-Willowtree Activity Programming. Ideas for checklist questions: Is there adequate seating for individuals with impaired vision or hearing? Are seats easy to maneuver in and out of for individuals with limited strength? Are aisles wide enough for mobility aides (e.g.,

walkers)? Which handicap accessible entrances are closest to the seating area? Are restrooms located nearby?

Activity Programming. As previously stated, the ADL/IADL assessment tools used in this study found a large majority of participants to be highly-functioning, independent individuals. For the participants who earned lower scores on the scales of independency, the two areas reported as most often needing assistance were matters of incontinence (ADL) and shopping (IADL). Ways to offset these problems would include making sure Activity Programming takes place in areas of Willowtree that are in close proximity to restrooms, and encouraging Staff to make frequent breaks while leading activities so residents can handle personal matters. Also, Staff may wish to contact area service agencies to see if volunteers could assist residents while shopping. This would not negatively affect budgets or work efficiency, as Staff would not have to attend individual shopping trips and their time could be spent elsewhere. In addition, this would provide newfound independence and another socialization element for residents.

The five most common concerns found within the Reasons for Disengagement section of the RAAS provided the researcher with ideas to recommend to the Willowtree Activity Department Staff (Table 5). These suggestions include physical, social, and intellectual opportunities for residents, which can lead to improved satisfaction with their environment, along with greater levels of cognitive performance (Hultsch, et al., 1999) and well-being.

I usually have appointments or other engagements was the most common reason for not engaging in Activity Programming. This differs from the other commonly reported reasons, as it is a choice rather than a barrier. For older persons, involvement in fraternal

clubs or church groups is a familiar socialization activity residents may choose to invest their time rather than Willowtree Activity Programming. Medical appointments also consume aging cohorts' time, and with appointments usually scheduled months in advance, these too are probably chosen over Activity Programming engagement. The researcher presumes social and medical commitments are common reasons, and when planning involves an independent population, it is expected that there will be occasional scheduling conflicts. Activity Staff should once again center their attention on offering activities to which residents can personally relate. In care facilities, activities tailored to the residents' abilities and personality traits produce greater participation than do non-tailored activities (Kolanowski, et al., 2005). Older adults who have informal, supportive social networks have been found to experience better physical and mental health than older persons who do not maintain meaningful ties with others (Phillips, Siu, Yeh, & Cheng, 2008). More resident-focused Activity Programming may help entice individuals to engage more often at Willowtree, but Activity Staff should also promote personal engagement outside the facility and seek out opportunities for the residents to do so. Engagement of all kinds is in residents' best interest, as it further expands their opportunities for social support and successful aging.

Issues of a social matter, *I do not know many people* and *I do not get along with some residents* are the two least reported reasons for not engaging in Willowtree Activity Programming. This gives the impression that while Activity Department Staff should continue with activities which welcome new residents and encourage camaraderie, more efforts should be made to address activity time and physical ability concerns (the four most common reasons for not engaging in Activity Programming).

Table 5. Activity Recommendations Based on Reasons for Not Engaging in Activity Programming

Reason	Recommendation
Have other engagements at same time	While the most popular time slot for activities was Afternoon, it is important to continue to offer activities at alternative times throughout the day. Also, be cognizant of schedule variety; do not offer specific activities only on certain days/times. Alternating days and times will help counteract this reason. Residents may even find a new found interest in activities offered at novelty times (e.g., Pancake Dinners, daytime Minnesota Twins watching parties, Breakfast Bingo)
Have knee and/or foot pain	Residents who suffer from knee and/or foot pain usually have difficulty bending at the knees, twisting their legs, moving quickly, walking very far, etc. Studies continuously show exercise to be vital for maintaining mobility (VanSwearingen, et al., 2011). The researcher suggests activities involving intermittent movement (e.g., gentle Nature Walks provide exercise, and when needed, allow residents to sit on benches and rest. During rest periods, Staff could lead a discussion or educate residents on the local flowers, trees, and animals).
Have back and/or hip pain	Residents who suffer from back and/or hip pain usually have difficulty bending at the hip, twisting, picking up objects lower than waist level, sitting for long periods of time, etc. Once again, the researcher suggests activities involving intermittent movement (e.g., Scavenger Hunts in and around the facility allow residents to go at their own pace, resting when they wish, finding clues hidden above hip level, socializing with others, and eventually earning prizes).
Have shoulder, wrist, and/or hand pain	Individuals experiencing shoulder, wrist, and/or hand pain have trouble grasping items, raising their arms, pulling themselves up, and pushing things away. Building strength in the lower body may make daily tasks easier by taking some of the reliance off of the upper body. Activities focusing on the lower body could be offered. (e.g., a walking program could be started where residents set physical goals for themselves, receive points for time spent walking, enjoy socialization, and earn prizes at the end of the program for their individual efforts).
I would rather be alone, I am more of a “homebody”	While older persons sometimes move to living facilities to accommodate existing or anticipated changes in their ability levels (Newcomer, et al., 2002), Activity Department Staff must remember to be respectful of residents’ privacy and autonomous efforts. The researcher recommends placing friendly, nonintrusive reminder notes under the residents’ apartment doors, inviting them to partake in facility events. Personal activities could be offered, merging Willowtree Activity Programming with the environment of individual homes (e.g., Distributing activity kits to residents who would like to stay active but choose to do so on their own terms. Kit contents would be craft or hobby related {crocheting, bird watching, etc.} and designed for one or two people to complete.)

Activity Department Staff should continually try out new activities, which may ward off complacency, promote engagement, and improve resident well-being. But beyond the need to look for new opportunities, the researcher does not see any immediate need to drastically change the amount, type, skill, or intensity levels of the current activities offered by the Willowtree Activity Department.

The demographics of Willowtree will more than likely undergo change if the facility pursues an assisted-living status. In order to meet the needs of residents requiring assistance, and to stay competitive in its market, Willowtree will need to alter its Activity Programming to offer a larger amount of daily activities, and activities geared toward a greater range of participant ability levels. A quick overview of the assisted-living market in which Willowtree would compete shows comparable facilities offering an average of four daily activities. Activity Department Staff may wish to adjust programming to meet a similar number once Willowtree transitions into an ALF status. However, it is important to bear in mind Cummings' (2002) findings that ALF residents' well-being is not necessarily related to the quantity of activities offered, but to the residents' perception of the social support they receive. If Activity Staff choose to implement annual interest and ability surveys, this would be an excellent way to see if residents desire change in activity frequency.

Limitations of Study

Because the main assessment tool in this study was self-report, validity may be compromised by erroneous responses. Some questions in the RAAS were of a sensitive nature, inquiring about the health and personal abilities of respondents. Sometimes participants of self-guided studies wish to present themselves in a favorable way, causing

problems in the accuracy of what is reported. Underreporting of health problems by elderly may be linked to the severity of pain the problems create. Oftentimes older adults are less inclined to identify, focus on, or seek help for health issues that are not overly painful (i.e., hearing loss) (Wetzels, van Eijken, Grol, et al., 2005).

Denial of declining health may have also played into participants' responses. A readiness to recognize or admit to one's changing abilities requires adjustment, and denial is a typical coping strategy adopted until implications can be internalized (Olney, 2004; Stewart, 1999). Comprehension is a third factor. Even though the Consent Form and RAAS were created specifically for an elderly individual, it is possible that the participant interpreted questions or statements in a different situation or context than was intended. The researcher believes the final influencing factor for possible falsified resident data is fear that their discovered ability level would affect their residency status at the independent-living facility. This is despite the fact that all participants were assured confidentiality of respondent replies.

Few studies of elderly individuals similar to the present one were found in related literature; use of a facility-specific, self-guided survey created comparison limitations. A change in assessment tools may have been appropriate. Alternate options include using more detailed surveys, using assessments which measure increments of ability change over time, or conducting researcher-participant interviews rather than distributing surveys. However, while these measures may have generated more in-depth data, it is a possibility that fewer residents would have agreed to participate.

Of the respondents in this study, 45 (83%) were female and 9 (17%) were male. The lower number of male participants is understandable, due to the ratio of women to men

at Willowtree. In addition, only two of the nine males were single. The effect gender and marital status has on preference and ability should be further researched. The researcher also learned that nearly two-thirds of participants who “enjoyed” activity categories which involved cultural experiences or continual learning had at least a high school education. It may be very interesting to discover the influence other variables have on residents’ Activity Programming preferences. Going forward, researchers may also wish to explore the areas of age, education, career experience, heritage, and social class.

In answering the two research questions, this study supports the concept that functional abilities, personal opinions, and interests all greatly influence residents’ Activity Programming enjoyment. The researcher believes Willowtree Activity Department Staff can take this discovered information and use it to create a more detailed portrait of residents’ abilities and interests, thus shaping ever more resident-focused Activity Programming and providing further opportunities for successful aging.

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APPENDIX A. CONSENT FORM

North Dakota State University
Human Development and Education
255 EML Hall
NDSU Dept
PO Box 6050
Fargo, ND 58108-6050
Phone: 701-231-8272

Date: February 7, 2012

Title of Research Study: Transitioning a Living-Center: Resident Ability and Preference in Activity Programming

This study is being conducted by: Greg Sanders, PhD, and Lacie Silha, Graduate Student in Gerontology at North Dakota State University.

Why am I being asked to take part in this research study?

You are invited to take part in this research study because you are a resident at this facility.

What is the reason for doing the study?

The purpose of this research study is to improve the Activity Programming at this facility. Findings from the project will help the Activity Department: better understand the physical and psychosocial functional abilities of the residents and the influences these abilities have on activity preferences and participation, and to identify residents' preferences in activity type, time of day, frequency, and duration.

What will I be asked to do?

If you agree to participate in this study, you are asked to fill out this Consent Form and the Resident Activity and Ability Survey. The Survey asks questions pertaining to your physical and mental health, and your preferences in Activity Programming. You are instructed to mark the box on the last page of this Consent Form to show that you have read and understand the form, and you will need to complete the Survey to the best of your ability. Please do not write your name anywhere on the documents. After you have fully completed the Consent Form and Survey, you will need to place the documents in the designated box in the Atrium.

Where is the study going to take place, and how long will it take?

You will be able to fill out the Consent Form and Survey within the comfort of your home, and at a time that is convenient for you. Participation in the study takes less than 40 minutes. You will have a two-week timeperiod to complete and submit the Consent Form and Survey to the secure, designated box in the Atrium.

What are the risks and discomforts?

Minimal risks are involved. Some of the questions regarding your daily activities and abilities may be personal and private to you; this may be uncomfortable to think about, but understand that your responses will be confidential.

What are the benefits to me?

By participating in this study, you will be able to help improve Activity Programming at this facility. Based on study results, in the upcoming months Activity Programming may undergo changes to better suit residents' abilities and preferences.

What are the benefits to other people?

You will help Activity Staff better understand residents' physical and psychosocial abilities, and the relationship between abilities and the activities in which residents choose to participate.

Do I have to take part in the study?

Your participation in this project is completely voluntary and you are free to withdraw your consent and discontinue participation in the project at any time without penalty. Your Survey responses will be confidential and will not affect your residential status at this facility. If you are not interested in participating in this study, please disregard this Consent Form and the enclosed Resident Activity and Ability Survey.

Who will have access to the information that I give?

- Data and records created by this project will be owned by NDSU and the researchers.
- Medcenter One will have access to the final results of the study.

Will I receive any compensation for taking part in this study?

No compensation will be received by taking part in this study.

What if I have questions?

If you have any questions pertaining to this study, please contact the researcher, Lacie Silha, during her posted hours.

What are my rights as a research participant?

You have rights as a participant in research. If you have questions about your rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at:

- Telephone: #701-231-8908
- Mail: NDSU HRPP
1735 NDSU Research Park Dr.
NDSU Dept. 4000
PO Box 6050
Fargo, ND 58108-6050

INSTRUCTIONS: (If you wish to participate in this study)

1. Make a mark (example: ✘ or ✔) in the **red box** on the bottom of this page.
2. Keep the extra copy of this Consent Form for your own records.
3. Fill out the enclosed Resident Activity and Ability Survey (RAAS). Do not include your name anywhere on this Consent Form or the Survey.
4. Deliver the Consent Form and the Survey to the box in the Atrium. Documents will be due two weeks from today on _____.

Documentation of Informed Consent:

You are freely making a decision to participate in this research study.



Placing a mark in this box means that:

1. you have read and understood this Consent Form
2. you have had your questions answered, and
3. you have decided to participate in this study.

APPENDIX B. RESIDENT ACTIVITY AND ABILITY SURVEY

RESIDENT ACTIVITY AND ABILITY SURVEY (RAAS)

Please answer the following questions to the best of your ability. After you have completed this Survey, place it and the marked Consent Form in the designated box located in the Atrium. It is very important that you **do not** state your name anywhere on these documents.

Demographics

(Please check one box per line.)

Gender

- Male
- Female

Age in years

- 55-70
- 71-80
- 81-90
- 91-100
- 100+

Marital Status

- Married
- Widowed
- Divorced
- Never married

Education

- I completed up through eighth grade or less than eighth grade
- I attended high school but did not graduate
- I graduated high school
- I attended higher education but did not graduate
- I graduated from higher education

Years I have resided at this facility

- Less than 1 year
- 1-2 years
- 2-3 years
- 4-5 years
- 5+ years

Overall health

- Very healthy
- Somewhat healthy
- Somewhat unhealthy
- Very unhealthy

Activity Programming, Activity Enjoyment

(Please tell how you feel about the following activities. Check one box per line.)

<i><u>I do not enjoy</u></i>	<i><u>I sometimes enjoy</u></i>	<i><u>I enjoy very much</u></i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Musical performances at this facility by guest performers (such as by an accordion player)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trips to listen to musical performances outside of the facility (such as going to a concert downtown)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Social games that do <u>not</u> use technology (such as playing cards, Bingo, Bunco)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Social activities that <u>do use</u> technology (such as playing Wii Bowling or listening to audiobooks for a Book Club)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Educational presentations here at this facility (such as by a guest dietician or cook)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Educational trips outside of this facility (such as listening to a presentation at the library)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Physical fitness activities (such as group exercise videos or a walking program)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-musical performances at the facility (such as dance recitals or poetry readings)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trips to attend non-musical performances outside of the facility (such as going to a play)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spiritual, religious opportunities (such as Daily Mass, Rosary, Bible Study)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Parties at this facility (such as a Tea Party or Minnesota Twins Party)

*I do
not enjoy*

*I sometimes
enjoy*

*I enjoy
very much*

Activities involving one's creativity
(such as making crafts)

Trips to go shopping in the community

Activity Programming, Time, Frequency, and Duration

How many activities do you like to attend each week?

(Please check only one box)

- None
- 1-2 activities
- 3-4 activities
- 5 or more activities

When do you like activities to be held?

(Please check only one box)

- Mornings (9:30-11:30 a.m.)
- Afternoons (2:30-4:30 p.m.)
- Evenings (6:30-8:00 p.m.)

How long do you like activities to last?

(Please check only one box)

- 30 minutes
- 30-60 minutes
- Over one hour

Activity Programming, Reasons for Disengagement

Are you unable or do not wish to attend some of the planned activities?

(Please check one box per line.)

***This does not
sound like me***

***This sometimes
sounds like me***

***This sounds
like me***

I usually have appointments or other engagements I need to attend, and therefore, miss planned activities.

I find that the activities are usually scheduled during my daily nap time.

I do not know many people here and feel uncomfortable participating in activities.

I do not get along with some of the residents. Because of this issue, I choose to not participate in planned activities.

I have problems controlling my bladder and/or bowel, so I choose to stay close to my apartment.

I have frequent back and/or hip pain, which limits my ability to engage in activities involving bending, stretching, or twisting.

I have frequent knee and/or foot pain, which limits my ability to engage in activities involving walking, bending, going up stairs, or twisting.

I have frequent shoulder, wrist and/or hand pain, which limits my ability to engage in activities involving raising my arms, lifting, stretching, or grasping onto things.

*This does not
sound like me*

*This sometimes
sounds like me*

*This sounds
like me*

I have impaired vision, which limits my ability to engage in activities where strong eyesight is required.

I do not like activities because I am more of a “home body” and wish to be alone.

Activities of Daily Living

(Please check either “yes” or “no” for each question about your daily routines)

Yes **No**

Bathing. Can you take a sponge bath or shower by yourself without receiving assistance?

Dressing. Can you get your own clothes and dress for the day without any assistance except for tying your shoes?

Toileting. Can you go to the bathroom, use the toilet, arrange your clothes, and return without any assistance? (may use cane or walker)

Transferring. Can you move in and out of bed and chairs without assistance? (may use cane or walker)

Continence. Can you control bowel and bladder completely by yourself without occasional "accidents"?

Feeding. Can you feed yourself without assistance (except for help with cutting meat)

Instrumental Activities of Daily Living Scale

(Please check the one choice per category that best applies to your daily life.)

Telephone

- I operate the telephone on my own initiative. I look up and dial numbers without any assistance.
- I dial a few well-known numbers.
- I answer the telephone, but do not have much confidence dialing on my own.
- I do not like using the phone; it is too confusing for me.

Laundry

- I transport clothing to and from the laundry room, wash, dry and fold the clothes on my own.
- I launder small items by myself, but cannot handle full loads of laundry.
- All laundry must be done by others.

Shopping

- I take care of all my shopping needs independently.
- I shop independently for small purchases.
- I need to be accompanied on any shopping trip.
- I do not feel comfortable shopping and like it when others shop for me.

Food Preparation

- I plan, prepare, and serve my meals independently.
- I prepare meals if supplied with ingredients.
- I heat and serve prepared meals (either frozen purchased meals or meals that someone else has made for me).
- I need to have meals prepared and served to me.

Housekeeping

- I am able to clean and maintain my apartment alone with occasional assistance with the heavy work.
- I perform light daily tasks such as dishwashing and bed making on my own but need help with tasks that require more physical effort.
- I perform light daily tasks in my apartment, but cannot maintain an acceptable level of cleanliness on my own.
- I need help with all home maintenance tasks.
- I do not participate in any housekeeping tasks.

Mode of Transportation

- I drive my own car.
- I arrange my own travel using public transportation (such as Transit) and can travel by myself.
- I travel on public transportation (such as Transit) when assisted or accompanied by another person.
- I only travel by car, and only when assisted by another person.
- I choose to not travel.

Responsibility for Own Medications

- I am responsible for taking medication in correct dosages at correct times.
- I take responsibility if medication is prepared in advance for me, in separate dosages.
- I am not capable of dispensing my own medication.

Ability to Handle Finances

- I manage financial matters independently (budget, keep track of income write checks, pay rent and bills, go to the bank).
- I can manage small amounts of money daily, but need help with banking, major purchases, and bills.
- I am not able to handle my financial matters.

APPENDIX C. SCORING, MODIFIED LAWTON AND BRODY IADL SCALE

The Lawton and Brody Scale of Instrumental Activities of Daily Living is used to determine functionality. Point values are listed next to each statement. A summary score will be found for each participant by adding up the individual's points. The scale of functionality for this assessment ranges from zero points (representing low functioning, dependence) to eight points (representing high functioning, independence).

Telephone

- 1 I operate the telephone on my own initiative. I look up and dial numbers without any assistance.
- 1 I dial a few well-known numbers.
- 1 I answer the telephone, but do not have much confidence dialing on my own.
- 0 I do not like using the phone, it is too confusing for me.

Shopping

- 1 I take care of all my shopping needs independently.
- 0 I shop independently for small purchases.
- 0 I need to be accompanied on any shopping trip.
- 0 I do not feel comfortable shopping and like it when others shop for me.

Food Preparation

- 1 I plan, prepare, and serve my meals independently.
- 0 I prepare meals if supplied with ingredients.
- 0 I heat and serve prepared meals (either frozen purchased meals or meals that someone else has made for me).
- 0 I need to have meals prepared and served to me.

Housekeeping

- 1 I am able to clean and maintain my apartment alone with occasional assistance with the heavy work
- 1 I perform light daily tasks such as dishwashing and bed making on my own but need assistance with tasks that require more physical effort.
- 1 I perform light daily tasks in my apartment, but cannot maintain an acceptable level of cleanliness on my own.
- 1 I need help with all home maintenance tasks.
- 0 I do not participate in any housekeeping tasks.

Laundry

- 1 I transport clothing to and from the laundry room, wash, dry and fold the clothes on my own.
- 1 I launder small items by myself, but cannot handle full loads of laundry.
- 0 All laundry must be done by others.

Mode of Transportation

- 1 I drive my own car.
- 1 I arrange my own travel using public transportation (such as Transit) and can travel by myself.
- 1 I travel on public transportation (such as Transit) when assisted or accompanied by another person.
- 0 I only travel by car, and only when assisted by another person.
- 0 I choose to not travel.

Responsibility for Own Medications

- 1 I am responsible for taking medication in correct dosages at correct time.
- 0 I take responsibility if medication is prepared in advance for me, in separate dosages.
- 0 I am not capable of dispensing my own medication

Ability to Handle Finances

- 1 I manage financial matters independently (budget, keep track of income write checks, pay rent and bills, go to the bank).
- 1 I can manage small amounts of money daily, but need help with banking, major purchases, and bills.
- 0 I am not able to handle my financial matters.

APPENDIX D. SCORING, KATZ BASIC ADL SCALE

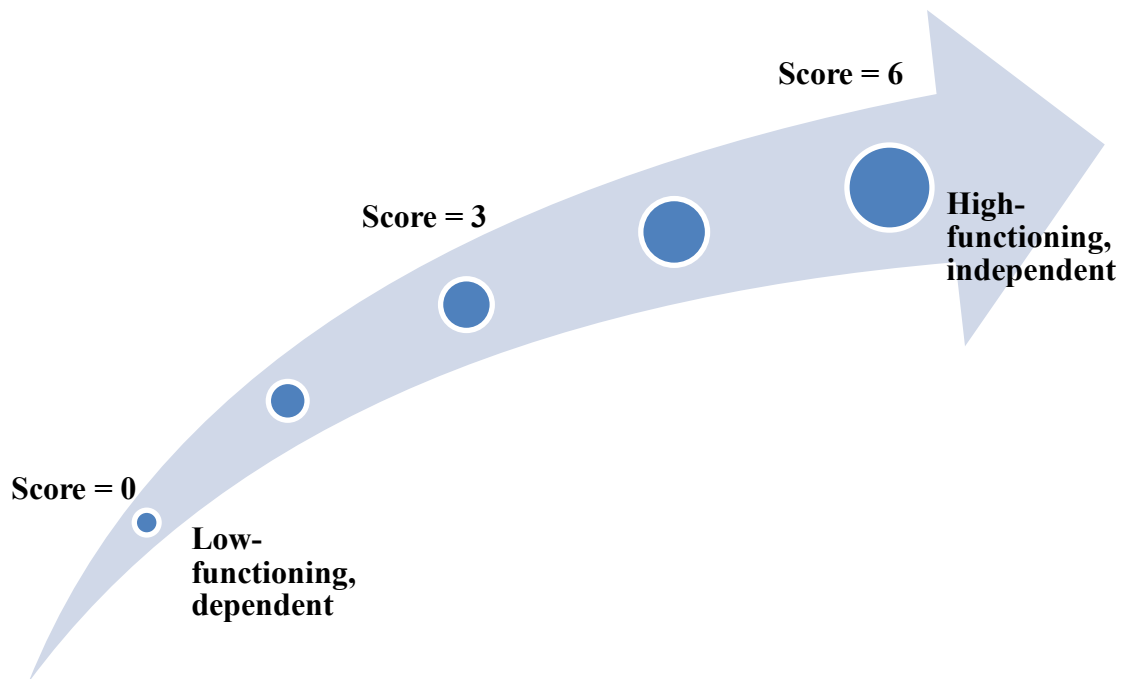
“Yes” responses = 1 point

“No” responses = 0 points

Scores range from 0 to 6.

Total score ≤ 2 = severe functional impairment and dependency

Total score ≥ 5 = high-functionality and independency.



APPENDIX E. NDSU IRB APPROVAL LETTER

NDSU

NORTH DAKOTA STATE UNIVERSITY

Institutional Review Board

*Office of the Vice President for Research, Creative Activities and Technology Transfer
NDSU Dept. 4000
1735 NDSU Research Park Drive
Research 1, P.O. Box 6050
Fargo, ND 58108-6050*

701.231.8995

Fax 701.231.8098

Federalwide Assurance #FWA00002439

IRB Certification of Exempt Human Research Project

January 26, 2012

Protocol #**HE12121**

“Transitioning a Living Center: Resident Ability and Preference in Activity”

Gregory F. Sanders

Dept. of Human Development and Family Science, 255 EML

Co-investigator(s) and research team: **Lacie Silha**

Study site(s): **Medcenter One Marillac Manor**

Funding: **n/a**

It has been determined that this human subjects research project qualifies for exempt status (category # 2b) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, *Protection of Human Subjects*). This determination is based on the revised protocol application received 1/26/2012 and consent/information sheet received 1/26/2012.

Please also note the following:

- This determination of exemption expires 3 years from this date. If you wish to continue the research after 1/25/2015, the IRB must re-certify the protocol prior to this date.
- The project must be conducted as described in the approved protocol. If you wish to make changes, pre-approval is to be obtained from the IRB, unless the changes are necessary to eliminate an apparent immediate hazard to subjects. A *Protocol Amendment Request Form* is available on the IRB website.
- Prompt, written notification must be made to the IRB of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Any significant new findings that may affect the risks and benefits to participation will be reported in writing to the participants and the IRB.
- Research records may be subject to a random or directed audit at any time to verify compliance with IRB policies.

Thank you for complying with NDSU IRB procedures; best wishes for success with your project.

Sincerely,



Teryl Grosz, MS, CIP

Manager, Human Research Protections Program

NDSU is an EO/AA university.

APPENDIX F. ORAL PRESENTATION TRANSCRIPT

Hello residents, thank you for coming to this presentation. For those of you who do not know me, my name is Lacie Silha and I was the Activity Coordinator here at this facility for over four years.

For awhile now, I have been working on attaining my Masters degree in Gerontology through North Dakota State University. If any of you are unaware of the term, “gerontology” is the study of aging. I am currently working on the thesis portion of this degree, which requires gathering information, conducting research and writing a report. My thesis topic pertains to the Activities offered at this facility. There are two main goals of this study:

1. To identify all of your preferences for activity type, frequency, time of day, and duration.
2. To discover any relationships between your physical and psychosocial abilities and the activities that you engage in and enjoy.

I have been doing a lot of reading for this project, and my next step is to start gathering information. I am asking for your help, and I will need as many participants as I can get. Participants are not required to go anywhere or perform any physical test for this study; rather, you simply need to fill out a Consent Form and a Survey. The simple Survey will ask questions pertaining to your activity preferences, as well as about your physical and mental health. Your entire participation in this study should take less than 40 minutes.

Packets will be delivered today to all of your apartments. Each resident will be receiving a packet; therefore, apartments with two tenants will receive two packets. The packets contain a Consent Form, a copy of the Consent Form for you to keep for your

records, and the Resident Activity and Ability Survey. Those of you who are interested in participating will need to fill out the documents to the best of your ability, and return both papers to the designated box in the Atrium. All documents will be due two weeks from today, on Tuesday, February 21.

It is very important that participants **do not** include their name anywhere on the documents. Gathered data will be kept confidential, and will not affect participants' residential status at this facility. Results will only be used to further develop the Activity Programming to better suit residents' needs and interests. Remember that participation in this project is completely voluntary and you are free to discontinue participation at any time without penalty.

I will now pass around some information about what I just presented, so you can look it over throughout the day. As was mentioned earlier, packets with the Consent Form and Survey will be delivered to your apartments later on this afternoon. I really encourage all residents to participate, as the results from this study may benefit all residents through improved Activity Programming.

Thank you for your attention, are there any questions?

APPENDIX G. ADL/IADL ITEM SCORES

Activity	Total Score	Participants needing assistance with activity (%)*
Bathing	52	2 (4%)
Dressing	53	1 (2%)
Toileting	53	1 (2%)
Transferring	53	1 (2%)
Continence	44	10 (19%)
Feeding	53	1 (2%)

* N = 54

Activity	Total Score	Participants needing assistance with activity (%)*
Telephone	54	0 (0%)
Laundry	50	4 (7%)
Shopping	33	21 (39%)
Food Preparation	43	11 (20%)
Housekeeping	54	0 (0%)
Mode of transportation	43	11 (20%)
Responsibility for own medications	45	9 (17%)
Ability to handle finances	50	4 (7%)

* N = 54