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**Examining activity levels among older adults: A pilot study**

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science in Human Development and Family Studies

by

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## Abstract

Research has indicated that older adults who engage in activities are more likely to maintain independence, are in better health, have a greater sense of wellbeing, and are less likely to be depressed. There are numerous studies regarding successful activity programs for seniors, however there is little research on why seniors engage in activities. The purpose of this study was to gain an understanding what motivates seniors to stay engaged in activities, as well as to understand the role well-being plays with regards to being active. One hundred and seventeen older adults were surveyed with a one-time questionnaire. Results indicated that increased intrinsic motivation was significantly related to increased frequency of activity, and greater well-being was significantly correlated with increased activity level.

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## Examining activity levels among older adults: A pilot study

### Chapter 1

#### Introduction

##### *Background and Significance*

America is aging. Americans are living longer now than at any other point in history, with better health and improved finances (Federal Interagency Forum and Related Statistics, FIFRS, 2008). Approximately 12% of the population consists of individuals 65 years of age or older, or approximately 37 million people (FIFRS, 2008). With the baby boomers (individuals born between 1946-1964) turning 65 in 2011, there will be a significant rise in the number of older adults, and 65+ year olds will make up nearly 20% of the population (FIFRS, 2008). Maples (2004) describes the baby boomers as the Silver Tsunami, in order to portray the vast number of older adults that will become older in one gigantic wave. With an increased number of older adults within American society, more challenges will be seen in the areas of health care, policy, and governmental agencies (Rowe & Kahn, 1997).

##### *Health Status of Older Americans*

The Federal Interagency Forum on Related Statistics (2000) reports that health status tends to decline as one grows older. Health decline is usually caused by chronic health conditions. Chronic health conditions are long-term diseases that are not often cured (FIFRS, 2000). Chronic health conditions include: arthritis, diabetes, cancer, stroke, hypertension, heart disease, hearing impairment, and vision impairment. These conditions can negatively impact one's health, as well as the quality of one's life (FIFRS, 2000).

Older adults are more likely to have chronic conditions, thus it is important to examine the impact that chronic conditions may have on individuals. Chronic conditions are related to decreased quality of life and increased health care costs (FIFRS, 2008). Furthermore, approximately 80% of older adults have at least one chronic condition, while 50% of older adult have at least two chronic conditions. Research has shown that chronic conditions are preventable, and are not a part of normal aging (FIFRS, 2008). Wykle, Whitehouse, and Morris (2005) explain the effects of aging, based on genetic, lifelong behavioral, and environmental factors. They further explain that there is not a lot individuals can do within the genetics arena, however, individuals are able to control other influences (e.g., behavioral and environmental factors) throughout one's life. Diet, exercise, and social support have all shown to help buffer the effects of chronic conditions, as well as prevent chronic conditions (Wykle et al., 2005). Thus, gerontologists strive to create programs to help combat the effects aging, and help to increase quality of life of older adults.

### *Successful Aging*

An important term that is often used in the field of gerontology is successful aging. Rowe and Kahn (1997) have defined the term successful aging as, "Successful aging is multidimensional, encompassing the avoidance of disease and disability, the maintenance of high physical and cognitive function, and sustained engagement in social and productive activities." Within Rowe and Kahn's definition of successful aging, they believe that extrinsic factors play an encouraging part on normal aging; these extrinsic factors include diet, exercise, personal habits, and psychosocial factors (Rowe & Kahn, 1987). Due to more information available on lifestyle choices, the focus of aging has

changed. Instead of focusing on the losses older adults experience, the perspective has changed to focus on the gains realized throughout the lifespan (Rowe & Kahn, 1997). Research on successful aging is important, as it has helped to look at the positives of aging, and how to enhance an individual's aging experience.

### *Guiding Theories*

Within the field of gerontology there have been many different theories developed to help explain why older adults remain active in their later years of life. According to research, staying active and engaged in life lowers the risk of chronic disease, as well as helps one to remain independent. Bales and Dickson (2001) explain that the aging process is different for everyone, and that changes in behavior happen across the lifespan. They describe successful aging as being able to maximize beneficial outcomes while minimizing unfortunate outcomes. Margret and Paul Baltes (1990) developed the selective optimization with compensation theory (SOC) to help illustrate how people manage the losses and gains throughout life (Baltes & Dickson, 2001). This model is built on the idea that an individual has physical, mental, and environmental resources, and that these resources can sometimes be limited by factors (called losses). It is up to the individual to optimize gains and minimize losses. The purpose of this is to maintain a positive level of functioning in the face of change (Baltes & Dickson, 2001). Selective optimization with compensation is important in understanding how one can optimize their involvement in activities, but what is that motivates a person to engage in activities to begin with?



### *Motivation to Engage in Activities*

Motivation is an important factor to consider when studying successful aging. Ryan and Deci (2000) describe people as being either active participants in life, or uninvolved and isolated. They believe humans to be innately intrigued and inspired by life, however, they also believe that in some cases, individuals can become disinterested and cut off from the world. A major aspect of Self-determination theory is that it helps to explain the basis of what makes human beings motivated. According to Losier, Bourque, and Vallerand (1992), motivation is the most important factor to examine when it comes to understanding why people engage in activities. They describe motivation as the catalyst for initiating, directing, and sustaining behavior (Losier, et al., 1992). Another important factor to consider when studying successful aging is well-being.

### *Importance of Well-Being*

Well-being is defined as positive psychological functioning (Ryff & Keyes, 1995). Ryff and colleagues posit six dimensions of well-being which include: self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The term well-being is complicated, and multi-faceted. It is necessary to look at all six dimensions in order to gain a complete understanding of well-being (Ryff & Keyes, 1995). Studying well-being in the field of gerontology is important, as it helps contribute to our understanding of the relationship between motivation and activity levels.

### *Involvement in Leisure Activities*

According to Everard, Lach, Fisher, and Baum (2000), a major component of Rowe and Kahn's definition of successful aging is active engagement in life; that

includes activity, but also social support. They explain that there are different types of activities such as physical, social, and instrumental. For the purpose of this study, the term leisure activities will be used to describe all types of activities. Leisure activities can help reduce the risk of loss of independence, disability, and functional decline (Everard et al., 2000).

There is increasing evidence that physical activity is linked to psychological health (Netz, Wu, & Tenenbaum, 2005). Regular physical activity has also been shown to reduce the risk for heart attack, colon cancer, diabetes, and high blood pressure (Schoenborn, Vickerie, & Powell-Griner, 2006). Other beneficial factors of physical exercise include weight control, fewer falls among older adults, relief of pain from arthritis, decreased symptoms of anxiety and depression, and fewer financial resources spent on health care (Kannus, 1999). There are medical treatments available to help individuals treat illness, however, there are little resources available to help improve psychological functioning (Hamilton, Nitzman, Guyotte, 2006).

#### *Purpose of the current study*

The purpose of the present study was to examine activity levels among older adults. There is a significant body of research available on the kinds of programs that are successful within the older adult population, but there is little on what motivates older adults to engage in those activities. Research has demonstrated that those that engage in meaningful activities are less likely to be depressed, maintain greater independence, better health, and have a greater sense of well-being. The aim of the study was to determine what motivates older adults to engage in activities via a one-time questionnaire administered to all participants.

### *Hypotheses*

Although this exploratory study, there were several hypothesis of interest. These included:

1. Having a greater sense of well-being would be positively and significantly correlated with increased frequency of activity.
2. Intrinsic motivation would be positively and significantly correlated with increased frequency of activity.
3. Internal regulation would be positively and significantly correlated with increased frequency of activity.
4. Higher external regulation would be negatively correlated with increased frequency of activity.
5. Higher amotivation would be negatively correlated with decreased frequency of activity.
6. Self-reported health would be positively and significantly correlated with increased frequency of activity.

### *Assumptions*

1. All participants would answer the questions truthfully and to the best of their abilities.
2. The measures used for the pilot study were reliable and similar results would be expected if administered again.
3. The measures were valid and would assess what they are intended to test.
4. Coding and data entry was accurate.

*Limitations*

1. This was a convenience sample, thus the results are not generalizable to all Nevada adults aged 55 years and older.
2. The sample did not include ethnically diverse elders, therefore, the results are not generalizable to other ethnic groups.
3. The study was cross-sectional, therefore age related changes are not obtainable.

*Definition of terms*

1. Age: The number of years an individual has lived.
2. Young-Old: Individuals whose age is between 55 to 74 years.
3. Old-Old: Individuals whose age is 75+ years.
4. Senescence: The process of aging, in which biological and physiological changes occur due to a person's age. (Wykle, Whitehouse, & Morris, 2005)
5. Successful Aging: "The ability to maintain three key behaviors or characteristics: low risk of disease and disease related disability; high mental and physical function; and active engagement in life." (Rowe & Kahn, 1997)
6. Well-Being: Positive psychological functioning defined by six dimensions including: self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. (Ryff, 1989)
7. Physical Activity: Any movement that uses energy, and engages the muscles more than when an individual is resting. (National Heart Lung & Blood Institute, 2009)
8. Leisure Activities: Engaging in an activity voluntarily, outside an individual's daily routine. (leisure activity definition from Medical Webends., n.d.)

9. Motivation: The reason an individual engages in an action, that which gives a purpose for a specific behavior. (motivation definition from Wordwebnet.princeton.edu., n.d.)
10. Intrinsic Motivation: the most self-directed type of motivation, and is characterized as engaging in an activity due to personal fulfillment (Guay et al., 2000)
11. Extrinsic Motivation: Participating in an activity because of the ending result, not because of personal satisfaction. (Ryan & Deci, 2001)
12. Internal Regulation: A type of extrinsic motivation, but is done out of a feeling of choice, as well as personal interest. (Ryan & Deci, 2001)
13. External Regulation: Another type of extrinsic motivation, but does an activity based on social pressures. (Ryan & Deci, 2001)
14. Amotivation: The absence of any kind of motivation (Dacey et al., 2008)
15. Healthy Behaviors: Behaviors performed by an individual that improve one's health.

## Chapter 2

### Literature Review

#### *Aging Demographics*

America is, and will continue, to grow older. Currently, approximately 12% of the population or 37.3 million people in the United States are 65 years old or older.

Projections for 2030 indicate there will be approximately 71.5 million older adults (FIFRS, 2006). The Federal Interagency Forum on Aging Related Statistics (2006) explains that individuals living to age 65 can expect to live an average of 18.4 additional years (19.8 additional years for females and 16.8 additional years for males). Population growth has an effect on all facets of society, including politicians, policymakers, families, businesses, and health care providers (FIFRS, 2000).

In 2000, there were approximately 4 million Americans over the age of 85, by 2050, those 85 years and older will increase to 19 million (FIFRS, 2000). Beginning in 2011, the baby boomers will start turning 65 years of age. By 2030, approximately 1 in 5 individuals will be 65 years of age or older. The face of the American population is changing, and will continue to change over the next several years (FIFRS, 2000). With the baby boomer generation approaching older age, and the fact that individuals are living longer than ever before seen in history, it is likely that there will be an increase in chronic disability, long term care stay, and health care costs (Mokhad et al., 2004).

The aging population is growing at an astounding rate due to change in life expectancy over the past century. Schoenborn et al. (2006) explain that life expectancy rates have increased over the last century. In 1900, average life expectancy was approximately 49 years of age, whereas in 1997 average life expectancy was 79 years of

age for women, and 74 years of age for men (Schoenborn et al., 2006). With life expectancy rates at an unprecedented high, a new aging population has been created. The changes include different health and disease patterns, which results in a change of the health care system, public health, and aging services (Mokhad et al., 2004). For example, increased amount of education is correlated with a longer life. Another factor that affects life expectancy is race, which can be a predictor for life expectancy (FIFRS, 2000).

The percentage of older adults differs among states. The Federal Interagency Forum of Aging-Related Statistics (2000) explains how mortality rates differ among each state, and the number of older adults who migrate to a state each year affect its demographics. For example, in the year 2000, Florida, West Virginia, Pennsylvania, Iowa, and North Dakota had the highest percentage of older adults, with 15% or more. In Nevada, 10-12.9% of the population is aged 65 years or older (FIFRS, 2000). Currently, 27% of the population in Nevada are baby boomers (Sanford Center for Aging, 2007). According to Sanford Center for Aging (2007), “Nevada is projected to be the number one state in the nation in the rate of senior population growth between 2000 and 2030 at 264%”. There is a need to understand the future population of the state, in order to plan for the challenges of the aging individuals residing within Nevada (Sanford Center for Aging, 2007).

#### *Demographic characteristics of older adults*

Older women are more prevalent than older men; the proportion of women increases with older age (FIFRS, 2000). Within the age group of 65 years and older, 58% are women, while in the 85 years and older age group, women make up 70% of the population (FIFRS, 2000). The Sanford Center for Aging (2007) explains some of the

reasons for the difference in sex ratios, for example, women are more likely to visit a physician and engage in less risky behaviors, as well as being women as more likely to be caregivers and live alone.

With the older population increasing, so will its diversity; approximately 18.5% of older adults will be minorities (FIFRS, 2006). The Federal Interagency Form on Aging-Related Statistics (2000) explains that ethnic groups such as Hispanics, and non-Hispanic black, non-Hispanic Asian and Pacific Islander groups will all increase in the next several years. In 2000, non-Hispanic whites comprised 84% of older adults, with 6% Hispanic, 8% non-Hispanic black, and 2% non-Hispanic Asian and Pacific Islanders (FIFRS, 2000). By 2050, the percentage of non-Hispanic whites is expected to decrease by 20%; Hispanics are expected to increase by 10%, 4% increase for non-Hispanic black, and 5% increase for non-Hispanic Asian and Pacific Islanders (FIFRS, 2000). The increase in diversity among the American population will possibly produce different needs for programs and services (FIFRS, 2000).

The Federal Interagency Forum on Aging-Related Statistics (2000) describes marital status as having an impact on an individual's emotional and economic well-being. They also explain that the likelihood of women being married, as an older adult, is drastically lower than men. In addition, older men are more likely than women to be married, with 79% of men aged 65 to 74 years reporting being married, compared to 55% of women 65 to 74 years of age. Of those 85 years and older, married men comprise 50% of the population, whereas married women comprise 13% of the population (FIFRS, 2000). Furthermore, the factors that contribute to this phenomenon include sex differences in life expectancy, women marrying slightly older men, and higher



remarriage rates among widowed men than women. Only a small percentage of the older adult population are divorced or have never been married, with 7% divorced, and 4% never married (FIFRS, 2000).

Income has an impact on quality of life. The Federal Interagency Forum on Aging-Related Statistics (2000) describes living arrangements as a factor that is linked to income, health status, and availability of caregivers. Additionally, older adults who live alone have a higher prevalence of poverty than those that live with a spouse. Since older women are more likely to be widowed and live alone, poverty rates are higher among older women as compared to men (FIFRS, 2000).

The Federal Interagency Forum on Aging-Related Statistics (2000) reports that poverty among older adults has decreased over the past 5 decades. Poverty is measured by a family's annual financial income. Additionally, living in poverty increases an individual's risk for having scarce resources. These resources may include lack of food, housing, healthcare, and other needs. In 1959, older adults made up 35 percent of the country's poverty rate; this has changed drastically over the past five decades with a decrease to 11% of older adults living in poverty (FIFRS, 2000). Poverty rates vary depending on gender, marital status, as well as ethnic background. Women have higher poverty rates than men (13% vs. 7%), there are higher poverty rates among non-married older adults compared with married (17% vs. 5%), and there are higher poverty rates among minority groups versus non-Hispanic whites (FIFRS, 2000).

The Federal Interagency Forum on Aging-Related Statistics (2000) illustrates how level of education has an effect on socioeconomic status. Higher level of education is linked with higher incomes, higher living standards, and greater health status. Currently,

older Americans are more educated than any other cohort before them. It is expected that upcoming older adults will become more and more educated (FIFRS, 2000). There is diversity among education and minority status. For example, 72% of non-Hispanic whites have at least a high school diploma, compared to 29% of Hispanics, 44% non-Hispanic blacks, and 65% of non-Hispanic Asian and Pacific Islanders (FIFRS, 2000).

### *Health Status of Older Americans*

Health status is an important factor to study when examining the effects of activity on overall health. Most chronic conditions are preventable, or can be treated with physical exercise and proper nutrition. Chronic conditions affect many older adults. The major predictor of acquiring a chronic condition is older age (Mokhad et al., 2004). Leading causes of death for older adults 65 years and older include: heart disease, cancer, stroke, chronic respiratory disease, influenza, pneumonia, Alzheimer's disease, diabetes, nephritis, accidents and septicemia (Schoenborn et al., 2006). The Federal Interagency Forum on Aging Related Statistics (2000) reports how even though death rates have declined, some diseases and death rates have increased with cancer, pneumonia, influenza, diabetes, and chronic obstructive pulmonary disease (FIFRS, 2000). Men have higher death rates than women in every age group with the exception of 95 years and older, when they become equal (FIFRS, 2000). One of the major outcomes caused by chronic conditions is a diminished sense of quality of life (U.S. Department of Health and Human Services, 2007).

A large number of Americans will live with, rather than die from, chronic conditions (Brawley, Rejeski, & King, 2003). Chronic conditions limit a person's ability to function at the level they once did, and eventually can cause physical impairment.

The U.S. Department of Health and Human Services (2007) explains that physical inactivity and an unhealthy diet may cause obesity, as well as many chronic disease, some cancers, cardiovascular disease, and diabetes. In order to combat the effects of inactivity, one must adhere to regular physical activity (Brawley et al., 2003). According to the Centers for Disease Control and Prevention, older adults need at least 150 minutes of moderate intensity aerobic activity per week, and at least two or more days a week of strength training for the entire body. An alternative would be 75 minutes of vigorous intensity work out every week, and at least two or more days a week of strength training for the entire body. Physical activity is a significant part of activity as it is a major way to help combat chronic conditions.

Some other important factors that affect a person's health status include memory function and depression (FIFRS, 2000). Low cognitive function is a key risk factor for entering a nursing home. Prevalence of memory impairment increases with age and women are less likely than men to be affected by memory impairment (FIFRS, 2000). Depression has an impact on general well-being and mental health, with higher levels of depression being linked to higher rates of physical illness, functional disability and increased health care utilization (FIFRS, 2000). Women aged 65 to 84 years are more likely to become depressed than men; after age 85 years, the incidence is equal (FIFRS, 2000).

One of the reasons health status is such an important factor is because it is a major determinant of how long an older adult remains independent. Yuen, Gibson, Yua and Mitcham (2007) explain that health status, social support, and financial security all are linked to independence. Independence incorporates handling one's own matters such as

managing ones own day to day life without relying on others for financial, physical, and psychosocial assistance. Additionally, independence is thought to include accomplishment, autonomy, self-reliance, productivity, and serving a place in society, in addition to maintaining all activities of daily living (Gignac & Cott, 1998). Most older adults wish to stay independent for as long as possible (Yuen et al., 2007). Loss of independence is thought to involve a loss of identity, self esteem and purpose in life (Gignac & Cott, 1998).

### *Theoretical Models Underlying the Study*

Successful aging is a term often used in the field of gerontology. It has several evolving definitions, but for the purpose of this paper, successful aging is defined by Rowe and Kahn (1997) as, “The ability to maintain three key behaviors or characteristics: low risk of disease and disease related disability; high mental and physical function; and active engagement in life.” Bearon (1996) explains that in order to understand the term successful aging, one must look at different aging theories that have developed. Four different theories will be examined. They include disengagement theory, activity theory, continuity theory, and selective optimization with compensation theory.

Cummings and Henry were some of the first theorists to explore the field of aging, and they proposed the idea of disengagement theory. According to this theory, as one ages, they will naturally begin to disengage from life. This would include withdrawing from social roles due to reduced interest, decreased capabilities, and less social incentives to participate in life. In order to be successful within this model, the individual sits and waits for their time to come (Bearon, 1996). However, through research, this theory has been refuted. Disengagement theory does not account for seniors

staying active in life, and has been refuted time and time again, therefore, disengagement theory does not serve a helpful role in understanding activity level and motivation.

In 1972, Bengston and Person proposed “activity theory”. This theory was basically the opposite of disengagement theory, and posited that in order to age successfully one must keep busy and stay active. Activity theory claims that as individual’s age, they may have difficulty adjusting to change, despite the fact that life satisfaction and adjustment to late life can be achieved through engaging, rather than withdrawing, from life (Kart & Kinney, 2001). As described by Kart and Kinney (2001), Lemon, Bengston and Peterson (1972) attempted a formal and explicit test of the activity theory. They studied 411 aging individuals that were potentially moving into a retirement community. They studied informal activity (activity related to friends, relatives and neighbors), formal activity (activity related to participating in voluntary organizations), and solitary activities (activities done alone), and found that social activity was the predominant activity related to increased life satisfaction (Kart & Kinney, 2001). With regards to formal activity, Longingo and Kart found that it may actually inhibit one’s life satisfaction (Kart & Kinney, 2001).

Although activity theory has been widely used in the field of gerontology, it has several problems. The theory reasons that all individuals have control over their own social situations and assumes that when a loved one passes away the individual will replace them with new friends. Adversaries believe that economic resources may impede the replacement of new friends (Kart & Kinney, 2001). The second argument against activity theory holds that activity theory does not account for losses in life. Older adults face many losses (e.g., loss of work when they retire, loss of loved ones, loss of physical

capabilities, etc.). Activity theory supports the idea that one's needs remain stable across the lifespan, however, opponents argue, what happens when losses are faced? The third issue regarding activity theory is when a person experiences a loss, it is the quality of what one replaces the activity with that matters, not the quantity. Activity theory holds that as long individuals stay busy they will be able to adapt to life changes, however, research has proven that is not necessarily the case, it's actually the quality that helps the person to adjust (Kart & Kinney, 2001).

Robert Atchley developed a theory called continuity theory. Within this theory, what an individual does in their midlife is said to carry out into their late life (Bearon, 1996). Furthermore, Bearon (1996) states that research has demonstrated that psychological and social traits remain stable across the lifespan. Continuity theory contains the idea that not all individuals react to retirement in the same manner, variations occur throughout the aging population (Koib, 2004). Individuals experience feelings of balance as well as disconnectedness throughout the aging process. There are declines, as well as development, as one ages within the context of physical and psychological functioning. Everyone adapts to the challenges of aging in their own way; most individuals manage changes overtime using coping strategies learned in younger life, in order to maintain life satisfaction. Furthermore, many individuals retain the same patterns (e.g., activity levels, thinking patterns, social relations, etc.) throughout the lifespan, while others do not (Koib, 2004).

Continuity theory has been more widely accepted than activity theory, as it helps to account for variation among individuals. However, there are some limitations that must be noted. Burnette-Wolle and Godbey (2007) explain that continuity is limited in its

perspective as it only takes into account, those that age “normally”. Those that age “pathologically” are not included within the theory. Normal aging is explained as remaining independent, and able to meet needs such as managing income, housing, healthcare, nutrition, clothing, and recreation. Individuals who age “pathologically” are not able to meet their own needs, and are possibly disabled and/or poor (Burnett-Wolle & Godby, 2007).

Baltes and Baltes explain a fourth theory on aging. This theory is based on life-span developmental psychology. It explores the stability, as well as the change, in behavior across the lifespan (Baltes & Dickson, 2001). This theory is known as selective optimization with compensation. Within this theory, older adults compensate for losses and declines faced throughout their lifespan, in addition to being able to grow and expand throughout their lifespan (Kart & Kinney, 2001). The theory illustrates the method in which older adults reach their goals apart from spiraling limitations and resources (Burnett-Wolle & Godby, 2007). Selective optimization with compensation as a theory contains three main components. The three major components are: selection, optimization, and compensation. Selection is described as an individual deciding which goals and outcomes he or she wants to take on (Baltes & Dickson, 2001). Within the element of selection, there are two groups, elective selection and loss-based selection. Elective selection is described as choosing to do something because you want to (e.g., choosing to focus all of your time and energy on a sport rather than playing the piano because of deciding which goals you want to pursue), whereas loss-based selection is when a person is forced to change a goal based on a loss (e.g., loss of physical ability to play a sport). Optimization is when a person puts all of their resources towards achieving

a goal. Finally, compensation is when a person uses new or alternate methods to maintain functioning in the area he/she has decided they want to pursue. Baltes and Dickson (2001) describe the two kinds of compensation. There is external compensation, which is using resources outside oneself, and internal compensation, which is using internal resources.

Kart and Kinney (2001) explain the three steps of the process of selective optimization with compensation to include: 1) An individual must select the roles and activities that are most important to them and focus on preserving them; 2) An individual must find ways to optimize functioning within those selected roles and activities; and 3) Compensation must be made for any decline or loss (Kart & Kinney, 2001). An example that is often cited by Baltes and Baltes is concert pianist, Arthur Rubinstein, who is still an expert pianist at the age of 80. Arthur Rubenstein explains that he is able to maintain his abilities by choosing to focus his time and energy on fewer pieces (e.g., selection), practicing those pieces more frequently than he had in previous years (e.g., optimization), and then in order to make parts of piece sound fast he would intentionally slow down other parts of the piece (e.g., compensation, Kart & Kinney, 2001).

Selective optimization and compensation has been tested and proven to be an effective guiding framework within the older adult population. It helps to examine the many losses that older adults face, and helps to explain how and why older adults adjust to those losses. This theory can be used to help explain physical, mental and emotional changes faced by older adults. For the purpose of this study, selective optimization and compensation will be used to describe how and why most older adults age successfully.



## *Motivation*

A crucial aspect of successful aging is understanding motivation. Deci and Ryan (2001) describe motivation as, “Motivation concerns energy, direction, persistence, and equifinality-all aspects of activation and intention.” A person can be motivated for many different reasons. Deci and Ryan developed a theory called Self-determination Theory to help explain the different reasons why an individual is motivated, or not. Furthermore, Dacey, Baltzell, and Zaichkowsky (2008) describe self-determination theory as an exceptional theory for describing motivation in the older adult population. They explain that motivation can best be viewed along a continuum, within this continuum, amotivation, extrinsic motivation (internal regulation and external regulation), and intrinsic motivation all exist. Ryan and Deci (2000) explain that in order for a person to have ideal social development and well-being, there are three needs that must be met, which include, competence, relatedness, and autonomy; these three needs must be met in order for inner growth to occur. Diagram 1 depicts the continuum of motivation.

Figure 1

Continuum of motivation



As previously described, there are three major types of behaviors: Amotivation, intrinsic motivation, and extrinsic motivation. Amotivation is described as the absence of any kind of motivation. This type of individual would not be likely to participate in any

activities (Dacey et al., 2008). According to Guay et al. (2000), amotivated individuals are the least self-determined, have no sense of purpose, and feel as if they have no chance of changing their life. These individuals tend to feel incompetent, and feel as if they do not have any control over their own life.

Intrinsic motivation involves carrying out an activity based on personal fulfillment and gratification (Guay et al., 2000). Intrinsic motivation embraces the idea that human beings are innately drawn to new things, acquiring new knowledge, and exploring their environment as well as self (Ryan & Deci, 2001). Intrinsic motivation can be fragile, and can be impeded by non-supportive conditions. Competence, autonomy, and relatedness combat non-supportive conditions. Non-supportive conditions could include “threats, deadlines, directives, pressured evaluations, and negative feedback” (Ryan & Deci, 2001). A supportive environment would incorporate: choice, recognition of feelings, and self-direction; all which all help to increase autonomy (Ryan & Deci, 2001). The term relatedness refers to a persons social surroundings. If a person feels supported, then intrinsic motivation is stimulated, whereas, if the individual feels as if they are not supported within their own social environment, intrinsic motivation may be thwarted (Ryan & Deci, 2001). In order for a person to be intrinsically motivated, a person must find an activity worth their time, energy, excitement, and thrill, in order for the motivating factor to be of intrinsic nature.

Extrinsic motivation describes the situation in which an individual participates in an activity, but does so based on outcomes, in contrast to intrinsic, where engaging in an activity is done because of enjoyment (Ryan & Deci, 2001). In order for an activity to be continuously carried out, the action must become internalized. This is accomplished by

regulation and integration. In doing so, a person takes on a value (e.g., regulation), and then alters that regulation within themselves, so that it comes from their sense of self (Ryan & Deci, 2001). Regulation can either be external or internal. If it is internal, then it involves personal approval and a feeling of choice. If external, then the activity is carried out based on being compliant with social pressures. An example of internal regulation is when an older adult sees a physician and is put on a specific diet. If the individual adopts the diet, and feels as if it will better their life, then it would be considered an internal regulation. Whereas if a person is in the same scenario, yet his or her spouse is pressuring the person to undertake the diet, and the person feels as if he or she does not have a say, but still does the diet, then it would be considered an external regulation. External regulation involves behaviors that are the least autonomous when it comes to extrinsic motivation. These kinds of behaviors are carried out to fulfill outside demands or rewards.

Self-Determination theory is a widely used theory to describe motivation across the lifespan. It seeks to describe how and why individuals are either active or passive in what they do. Ryan and Deci (2001) explain how people are innately curious and active, but are also vulnerable to inactivity. They aim to describe the conditions that will enhance an individual's natural inclination towards being, and remaining, active. Surroundings that sustain autonomy and competence are most likely to facilitate one's tendency towards activity, conversely, circumstances that control behavior are prohibitive towards activity (Ryan & Deci, 2001).

In order to evaluate motivation in the current study, the Situation Motivation Scale (SIMS), developed by Guay et al. (2000) will be used. They conducted five

different studies to validate their scale. The purpose of the scale is to determine the different dimensions of self-determination theory. The first study included the 26 items, and it was rated on a 7-point Likert scale. Within the first study, Guay et al. (2000) found internal consistency acceptable to Cronbach's values. They also found that sufficient construct validity was present with the three correlational analyses. They found that the four motivational constructs in the scale are in line with self-determination theory and were supported with construct validity.

Guay et al. (2000) surveyed 907 French Canadian college students (Mdn age = 18.9 years), 56% female. They found that the SIMS was able to measure motivational constructs in both males and females. They also found internal consistency and construct validity within the subscales. Results indicated that high perceived competence, autonomy, interest in the activity, and positive emotions are all positively correlated with intrinsic motivation and identified regulation (Guay, et al., 2000).

The third study examined the construct validity of the scale with regards to interpersonal style of a partner (Guay et al., 2000). They hypothesized that autonomy-supportive style would be positively correlated with intrinsic motivation and identified regulation. They gave the SIMS to 145 French Canadian college students (Mdn age = 18.0 years), 68% were female. In study three, the SIMS, the Behavioral Intentions to Partake in Similar Discussions (BIPSD), and the perceived autonomy support scale were used. Guay et al. (2000) found that the autonomy-supportive style was positively associated with self-determined types of motivation (Guay et al., 2000). This supported self-determination theory.

Study four was conducted in hopes of showing that some of the subscales were sensitive enough to detect intra-individual changes (Guay et al., 2000). They did this by surveying 150 basketball players from 16 different teams (Mdn age = 18 years) with 62% males. They found that perceptions of relatedness and autonomy are vital for understanding self-regulatory process (Guay et al., 2000).

Finally, study five intended to examine SIMS in a laboratory based setting. Guay et al. (2000) used “an experimentally induced task focus versus controlling reward manipulation,” in order to test their hypothesis that, “participants in the controlling-reward condition would have lower levels of intrinsic motivation and identified regulation but higher levels of external regulation than participants who were in the task-focus condition (i.e., the focus is on the intrinsic quality of the task.” They found that individuals in the task-focused condition had increased intrinsic motivation, which was more than those in the controlling-reward condition (Guay et al., 2000). SIMS has not yet been used within the older adult population. In order to gain a better understanding of motivational factors among seniors, the SIMS scale will be used and examined in the older adult population. Another important factor of successful aging is well-being.

### *Well-Being*

Ryan and Deci (2001) describe well-being as “optimal psychological functioning and experience.” Ryff (1989) developed the Six Dimensions of Psychological Wellness Scale, in order to measure six different characteristics of well-being that were obtained from literature on psychological well-being. These include: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Autonomy involves being independent and self-actualized. Environmental

mastery refers to a person's capacity to choose and create an environment in which they are able to flourish. Personal growth involves the ability to continue to learn, grow, and expand. Positive relations with others incorporates the idea that well-being is related to positive relationships with loved ones. Purpose in life involves meaning in one's life. Finally, self-acceptance is defined as being self-actualized and feeling good about oneself (Ryff, 1989). Ryff (1989) operationalized each of these concepts and believes these are the six dimension of psychological wellness.

A major component of successful aging is staying active and feeling as if one has a purpose. According to Krause (2008), older adults that find an avenue to express themselves experience less depressive symptoms than those that do not find an outlet for their creative abilities. He also found that individuals that have a quality friendship with at least one individual are more likely to experience fulfillment, as they are more likely to engage in meaningful activities. Krause (2008) also found that the old-old (those individuals 80 years of age and older) are less likely to feel as if they are expressing themselves and their talents in a meaningful way, and they are less likely than the young-old to have close personal relationships, thus making them vulnerable to experiencing depressive symptoms. Reker (1997) explains that older adults that feel they have a purpose are less likely to be depressed over time.

Ryff (1989) surveyed 321 individuals of various ages. There were 133 young adults (Mdn age = 19.5 years), 108 middle aged adults (Mdn age = 49.85), and 80 older adults (Mdn age = 74.9). Several studies have been conducted using this scale, and it holds a solid reputation in determining well-being. Another study conducted by Ryff and Keyes (1995) confirmed the previous findings that there were age differences among

cohorts when examining well-being. Older adults reported a decline in purpose in life and personal growth. However, there were no differences found for environmental mastery, autonomy, positive relations, and self acceptance (Ryff & Keyes, 1995). A shorter version of the scale was developed and validated, and for the purpose of the current study, the short version was used.

### *Leisure Activities*

Life experiences are made up of various activities. Kendall and Bane (n.d.) explain that life satisfaction and quality of life are linked to successful aging. They further explain that staying engaged in life is correlated with resilience in later life. Engaging in an activity is anything that gives a person a sense of purpose. Kendall and Bane (n.d.) further explain that a leisure activity entails pleasure, interest, and vigor. Hoyer and Roodin (2003) describe various leisure activities. These include: work, political causes, sleeping, eating, exercising, watching or playing sports, shopping, traveling, gardening, arts, crafts, watching television, listening to the radio, practicing religion, education, cooking, and chores. Hoyer and Roodin (2003) further note the most common leisure activities pursued by older adults which include: visiting family and friends, watching television, reading or writing, arts and crafts, games, walking, physical exercise, gardening, organization and club participation, and travel. They further explain that the reason individuals engage in their preferred activities is because they feel the activity allows them to exhibit competence, express themselves, and the activity may challenge them, as well as gives them a sense of purpose.

Social activity is an important part of aging, as well as a major part of leisure activities (FIFRS, 2000). Moreover, both men and women benefit from social

engagement. Those who interact throughout their lives tend to be more physically and mentally healthy compared with those who become socially isolated (FIFRS, 2000). The majority of individuals 70 years and older report engaging in some form of social activity within the past two weeks. However, the percentage of those reporting engaging in social activities declines with age (FIFRS, 2000).

Iso-Ahola and Park (1996) found that leisure activities, along with social support, helps to lessen the effects of stress on the physical body and promotes mental health. Iso-Ahola and Park (1996) further explain how life stress is associated with increased depression. They, too, found that individuals that engaged in leisure activities had more social contact and lower depression, than those that had infrequent participation in leisure activities and low levels of social contact (Iso-Ahola & Park, 1996). These effects were also associated with physical health. Increased life stress was found to cause additional health complications in those that did not engage in leisure friendships (Iso-Ahola & Park, 1996).

Badger and Collins (2000) found that community-dwelling older adults, social support was the best predictor of functional level. Hays, Saunders, Flint, Kaplan and Blazer (1997) discovered that social support safeguards against health declines, and actually instills higher physical capabilities. Badger and Collins (2000) found that depression was linked to a decrease in physical ability and decreased ability to be competent in the instrumental activities of daily living (IADLs). Depressed individuals also reported being sick more often, as well as having more hospitalizations. Badger and Collins (2000) concluded that social support is a positive factor for older adults to combat depression and stay independent longer.



Engaging in leisure activities also helps to lessen the prevalence of dementia. According to Verghese et al. (2003), involvement in leisure activities may expand an individual's cognitive reserve, and thus delay the onset of dementia. They further clarify that the number of times a person engages in a leisure activity is also related to one's risk of developing dementia. For example, individuals that did crossword puzzles four days a week were 47% less likely to develop dementia than those that only did crossword puzzles once a week (Verghese et al., 2003). Thus, participating in leisure activities is important for one's cognitive health.

One major activity that has been shown to greatly influence health is physical activity. Physical activity has been correlated with increased health benefits (FIFRS, 2000). Research has shown physical activity to lessen certain chronic diseases and depressive symptoms. Additionally, physical activity has been shown to preserve independent living, and enhance quality of life. At any age, physical activity is important as it has been shown to improve functioning in the health of the young-old, old-old, and frail (FIFRS, 2000). Sedentary lifestyles have declined over the past two decades, women are more likely than men to maintain a sedentary lifestyle. Most common activities for older adult include light to moderate activity such as walking, gardening, and stretching (FIFRS, 2000).

Amount of participation, and kinds of activities participated in vary across the lifespan. Iso-Ahola, Jackson and Dunn (1994) explored leisure activity behavior across the lifespan. Mobily (1987) explained that human development is established as being a process of progression and transformation across the lifespan. He further explains that "the leisure self" adapts and renews itself across the lifespan. Iso-Ahola et al. (1994)

explored this phenomena. They found that “the number of people starting new leisure activities declined from those in the first season of adult life to those in the third, before leveling off. A similar decline was observed in the replacement of leisure activities, except that the decrease reversed itself from the third to the fourth stage.” Therefore, as one ages, they are less likely to begin a new leisure activity, meaning that individuals tend to carry on similar activities across the lifespan, without introducing new ones in the later years of life. Participation in leisure activities has actually been found to decrease over time (Iso-Ahola et al., 1994). Physical activity has been found to decrease as one ages, however, homebound leisure activities (e.g., gardening, crafts, and/or creative activities) were actually reported to increase. One of the major findings of Iso-Ahola et al’s (1994) study was that leisure pursuits are started, concluded, and changed over the lifespan due to a need to escape the real world, and take a break from life’s realities. Understanding leisure activity across the lifespan is important as it helps to explain the kinds of activities older adults engage in, and why.

As the field of gerontology continues to grow, more and more interventions are being evaluated for effectiveness in improving the health and wellness of the aging population. Older adults have the highest rates of chronic conditions and disabilities. It is important to understand what motivates seniors to stay engaged in their health and life, so that gerontologists can better help the aging population. The aim of this study was to explore motivational factors which are related to activity levels, among older adults.

## Chapter 3

### Method

#### *Study Design*

The study involved a one-time survey utilizing a cross-sectional design. The survey was administered to a group of older adults aged 55 years and older. Age and sex were not specifically targeted, nor recruited for, as this was a convenience sample, however, age was examined as a potential correlate. Upon approval of this thesis and findings were analyzed, a two-page report was written for IRB, as well as Classic Residence to describe the findings of the study.

#### *Participants*

The proposed sample included 60 study participants, at least 55 years of age or older. The study participants were recruited from seniors residing at Classic Residence by Hyatt, in Reno, NV. In order to be eligible for the study, participants must have been at least 55 years or older, and must have lived at Classic Residence. English must have been their first language. All participants volunteered to participate in the study. Each participant received a two-part raffle ticket, so that their identity remained anonymous. Each participant was entered in a drawing to win one of three \$25.00 Raley's gift cards.

#### *Recruitment procedures*

The participants were drawn from Classic Residence by Hyatt, an independent/assisted living community in Reno, NV. The investigators were given permission by Classic Residence to conduct research at the community. The study was presented with a recruitment talk that was published in the monthly newsletter. The recruitment talk was presented by Dr. Karen Kopera-Frye, as Heather Myers was an

employee of Classic Residence, and her involvement in the talk might have been considered a conflict of interest. The participants were asked to indicate their interest in the research study, “examining older adult involvement in activities” by taking the one-time survey. A flyer also posted in the mail-room for individuals whom did not attend the talk, but still wanted to participate. These potential participants were asked to contact Dr. Karen Kopera-Frye’s office phone and asked to leave a message with their name and contact information, if interested in completing a survey. Then, a blank ID numbered survey was placed in their Classic Residence mailbox. Prior to the recruitment process, approval from the Institutional Review Board (IRB) was obtained.

#### *Data collection procedures*

A one-time survey was administered to those that chose to participate in the study. The survey took approximately 30 minutes to complete. The participants were able to fill out their survey in their own apartments, and take as much time as they needed to fill it out. Prior to distribution of the survey, a study information sheet (See Appendix B) was verbally reviewed, and a copy was given to the study participant for their own personal records. The study information sheet described to the participant that their participation in the study was voluntary, that participants may answer, all, some, or none of the questions, and that they may withdraw from the study at anytime without penalty as well as the confidential nature of the study. Filling out the survey indicated their understanding of the study information sheet, along with the agreement to participate in the study. All surveys were confidential (no identifying information was collected), and all surveys were safely kept locked in a cabinet in Dr. Karen Kopera-Frye’s office.

### *Measures*

A list of measures of interest to this study are included below. The following measures have been reported to be successfully used with the older adult population. The one-time survey (See Appendix A) included: Demographics (e.g., age, gender, education level attained, self-reported health), the Situational Motivational Scale, Self-Reported Involvement in Activities, and the Six Dimensions of Psychological Wellness Scale. Variables of interest in this study were: the Six Dimensions of Psychological Wellness Scale total score, SIMS scores, self-reported health, and self-reported involvement in activities.

Background variables: age, gender, education level attained, and self-reported health.

Background variables such as age, gender, education level achieved, self-rated health, and activity level have all been shown to affect well-being (Ryan & Deci, 2001). For the purpose of this study, age, gender, education level, self-rated health, and activity level were collected. These variables have all been shown to be related to activity level in prior gerontological literature (e.g., Laukka, 2006).

Self-rated health is one of the single best predictors of physical health. Self-rated health is also an indicator of mortality rates (FIFRS, 2000). Furthermore, good to excellent self-rated health is correlated with a lower risk of mortality. This self-report rating often encompasses physical, emotional, and social aspects of health and well-being. Positive self-rated health evaluations decline with age (FIFRS, 2000). For those 55 years and older, approximately one in four individuals report fair or poor health (Schoenborn et al., 2006). In addition, lower socioeconomic status increases the

likelihood of fair or poor reported health self-rating. Marital status has been shown to have a moderate increased effect on health status (Schoenborn et al., 2006).

The Situational Motivational Scale (SIMS): This is a 16-item scale measuring intrinsic motivation, internal regulation, external regulation, and amotivation (Guay et al., 2000). The respondent is instructed to think about the activity they participate in the most, and then is asked to rate the reasons why they engage in that activity. The 16-item scale uses a 7-point Likert response scale. For the purpose of this study, the scale was modified to a 4-point Likert response option scale. It was modified into a forced choice response format, dropping the middle (neutral) response options. Responses range from 1 = “Strongly Disagree” to 4 = “Strongly Agree”. A sample item is, “Because I think that this activity is pleasant”. Items 1, 5, 9, and 13 were summed to calculate intrinsic motivation. Items 2, 6, 10, and 14 were summed to calculate internal regulation. Items 3, 7, 11, and 15 were summed to calculate external regulation. Items 4, 8, 12, and 16 were summed to calculate amotivation. Since motivation is based along a continuum, all four factors (intrinsic motivation, internal regulation, external regulation, and amotivation) were examined.

Items for the SIMS scale were originated by a team of experts that included graduate students and professors. They created a 50-item scale to evaluate the four motivational constructs including: intrinsic motivation, internal regulation, external regulation, and amotivation. Within all five studies conducted to validate the scale, the 16-item scale was found to have acceptable construct validity (e.g., congruency coefficient = .71), and internal consistency (e.g., intrinsic motivation = .95, internal

regulation = .80, external regulation = .86, amotivation = .77). The SIMS helps to validate self-determination theory, and examines motivational factors of individuals.

Self-Reported Involvement in Activities: a measure developed for the purpose of this study to capture what kinds of activities older adults participate in. The question was, “Please list the activities you participate in, and note how often you engage in this activity.”

Six-Dimensions of Psychological Wellness: Ryff’s (1989) scale has 6 subscales: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance. Each subscale has 14-items with response options on a 7-point Likert scale ranging from 1 = “Strongly Disagree” to 6 = “Strongly Agree”. The higher the score under the autonomy subscale, the more self-determining and independent the individual is. The lower the score, the more concern there is about expectations and evaluations of others (Ryff, 1989). Higher scores on environmental mastery indicates competence managing one’s own environment, while a lower score indicates difficulty managing everyday affairs. Higher scores on the personal growth section indicated feelings of continued development, whereas a lower score reflects a sense of personal stagnation. A higher score on the positive relations with others subscale indexes positive, trusting relationships with others, while a lower score indicates only a few close friends, feelings of frustration and isolation. A higher score on the purpose in life subscale involves feelings of meaning and purpose in life, while a low score indicates a lack of purpose and meaning. Finally, a high score on the self acceptance subscale indicates a person has a positive attitude towards themselves, whereas a low score could indicate a dissatisfaction or disappointment. Ryff (1989) reports internal consistency for the six

different subscales as follows: self acceptance = .91; positive relations with others = .88; autonomy = .83; environmental mastery = .86; purpose in life = .88, and personal growth = .85. According to Laukka (2007), the shorter version demonstrates higher content validity.

#### *Data analyses plan*

The study involved a one-time survey. Variables of interest included: SIMS scores, self-reported health, self-reported involvement in activities, and the six dimensions of psychological wellness scale total score. Age and sex were not specifically targeted, nor recruited for (a convenience sample). All data was entered into SPSS (version 13). Frequencies were run and inspected for normalcy of distribution; variables with skewness of = 2.0 were winsorized. Correlational analyses (Pearson Product Moment Correlational analysis) were the primary statistical analyses used to examine the aggregate data.



## Chapter 4

### Results

#### *Description of participants*

One hundred seventeen participants were sampled for the current study. All 117 participants completed demographic information, resulting in the following demographics. There were 26 males, and 90 females represented in the study with approximately 77% being female. The average age was 81.6 years of age, participants ranged in age from 56 to 96 years old. The vast majority of the sample population was Caucasian (95%). Most participants were either widowed (47%) or married (35%). The majority of participants completed some college (M=15 years of education, range 2 to 28 years).

#### *Frequencies*

Health status was measured on a 4-point Likert scale. More than half (59%) of the participants rated their health as “good”. Approximately 15% rated their health as excellent, 19% rated their health as fair, and only 4% rated their health as poor. The mean score of self rated health was M=2.88.

Approximately 58% of participants reported not experiencing pain on a daily basis, while 41% reported experiencing pain on a daily basis. For those that reported experiencing pain on a daily basis, approximately 7% experienced occasional discomfort, 25% experienced some discomfort, 11% experienced moderate pain, and only 3% experienced extreme pain.

The total number of activities a person engaged in ranged from 0-10. The average number of activities a person engaged in was 5.33. Frequency of activity ranged from 0-

7, depending on how many days per week a person reported engaging in a specific activity. The mean was  $M = 2.91$ . The three most frequently engaged in activities were: some form of physical activity, socializing, and attending lectures/discussions/meetings. Frequencies were also run for motivation, and well-being. Please refer to table 1 for motivation frequencies, and table 2 for well-being frequencies.

Table 1

Frequencies for Situational Motivation Scale: Total Sample, Young-Old, and Old-Old

Name of Subscale	Total Sample		Young-Old		Old-Old	
	Mean	SD	Mean	SD	Mean	SD
Amotivation (a)	6.3	2.5	6.2	2.6	6.5	2.4
External Regulation (b)	6.6	3.3	7.1	3.8	6.1	2.7
Internal Regulation (c)	13.7	2.0	13.9	1.7	13.5	2.3
Intrinsic Motivation (d)	13.8	2.3	14.0	2.3	13.7	2.2

Note: (a) obtained from a possible score of 16  
 (b) obtained from a possible score of 16  
 (c) obtained from a possible score of 16  
 (d) obtained from a possible score of 16

Table 2

Frequencies for Well-Being: Total Sample, Young-Old, and Old-Old

Name of Subscale	Total Sample		Young-Old		Old-Old	
	Mean	SD	Mean	SD	Mean	SD
Autonomy (a)	60.8	10.2	61.7	9.1	60.0	11.1
Environmental Mastery (b)	68.5	14.4	68.9	11.9	68.2	16.7
Personal Growth (c)	65.6	10.8	70.3	10.1	61.2	9.7
Positive Relations Other (d)	68.0	10.8	69.9	10.4	66.3	11.0
Purpose in Life (e)	65.1	10.5	68.4	9.9	62.0	10.2
Self-Acceptance (f)	66.7	10.6	67.3	11.0	66.1	10.2
Total Score (g)	402.1	48.7	413.4	50.4	388.8	43.3

Note: (a) possible scores ranged from 35 to 92.  
 (b) possible scores ranged from 43 to 158.  
 (c) possible scores ranged from 41 to 84.  
 (d) possible scores ranged from 43 to 83.  
 (e) possible scores ranged from 42 to 84.  
 (f) possible scores ranged from 41 to 84  
 (g) possible scores ranged from 276 to 481.

#### *Total Sample Correlations*

Correlations were examined for total sample, as well as split into two age subgroups: young-old (60-79 years of age) and old-old (individuals 80 years and older). Interestingly, female gender was significantly related to increased amotivation, as well as decreased intrinsic motivation, however, this may be a spurious finding as there were far more women who participated in the study than men. Refer to table 3 for total group correlations.

Table 3  
Correlational Matrix-Total Sample

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	1.00															
2. Self-Rated Health	-.13	1.00														
3. Pain on Daily Basis	.14	.17	1.00													
4. Amotivation	-.12	.05	-.07	1.00												
5. External Regulation	-.27*	-.16	.00	.43**	1.00											
6. Internal Regulation	-.10	.02	.01	-.23*	-.05	1.00										
7. Intrinsic Motivation	.07	-.02	.02	-.23*	-.34**	.42**	1.00									
8. R-Autonomy	-.10	.00	.01	-.13	-.10	.27*	.05	1.00								
9. R- Environ Mast	-.02	.10	.15	.12	-.01	.10	.04	.32**	1.00							
10. R-Personal Growth	-.41**	.13	-.14	-.07	.06	.23*	.29*	.41**	.19	1.00						
11. R-Positive Relations	-.04	.00	.01	-.20	-.15	.17	.10	.54**	.32**	.49**	1.00					
12. R-Purpose in Life	-.31**	.23*	.05	-.23	-.04	.21	.13	.48**	.63**	.77**	.65**	1.00				
13. R-Self Acceptance	-.03	-.01	.06	-.21	-.17	.12	.10	.45**	.39**	.49**	.64**	.72**	1.00			
14. R-Total Well-Being	-.10	.13	.03	-.19	-.13	.12	.12	.62**	.71**	.77**	.76**	.92**	.87**	1.00		
15. Num Activities	-.43**	.23*	-.16	-.08	.05	-.14	.05	.18	.19	.40**	.20	.32**	.10	.30*	1.00	
16. Freq Activities	-.14	.12	-.23*	.03	.06	.07	.30**	-.07	.06	-.02	-.08	-.04	-.09	-.11	.30**	1.00

Note: \*  $p < .05$ , \*\*  $p < .01$

Activity was separated into two categories: number of activities participated in, as well as the frequency the person engaged in those activities (i.e., number of times per week). Interestingly, increased age negatively impacted the number of activities a person participated in, as well as had a negative impact on personal growth and purpose in life. As expected, increased self-reported health was significantly correlated with increased number of activities. Surprisingly, frequency of activity was not significantly correlated with self-reported health. Interestingly, being widowed and greater pain was correlated with decreased frequency of activity. Like anticipated, increased number of activities engaged in was correlated with greater personal growth. Not surprisingly, number of activities was also positively correlated with greater purpose in life. As predicted, number of activities was found to be positively correlated with overall well-being. As hypothesized, greater frequency of activity was significantly related to increased internal regulation.

Surprisingly, for those that reported some pain, greater intensity of pain was negatively correlated with less reported amotivation. As expected, the higher the external

regulation, the higher the amotivation. As anticipated, the higher the internal regulation the less amotivation; the higher the intrinsic motivation the lower amotivation. Not surprisingly, external regulation was negatively correlated with intrinsic motivation. As expected, internal regulation was positively correlated with personal growth, and intrinsic motivation was also positively correlated with personal growth.

#### *Young-old and Old-old Subgroup Correlations*

The study examined potential age group differences among the variables of interest. When splitting the participants into age groups (young-old versus old-old), the following correlations were found. Within the young-old group, higher intensity of pain was found to be significantly correlated with younger age ( $r = -.67, p < 0.05$ ). Self-determining independence (autonomy) was found to be negatively correlated with increased daily pain ( $r = -.37, p < 0.05$ ). Surprisingly, within the young-old group, there were not any significant correlations found with regard to activity level and the well-being scales, nor the motivation subscales. However, just as with the total group correlations, amotivation was significantly correlated with external regulation ( $r = .46, p < 0.05$ ), internal regulation was negatively correlated with internal regulation ( $r = -.52, p < 0.01$ ), intrinsic motivation was negatively correlated with amotivation ( $r = -.64, p < 0.01$ ), external regulation was negatively correlated with intrinsic motivation ( $r = .57, p < 0.01$ ), and internal regulation was found to be correlated with intrinsic motivation ( $r = .47, p < 0.05$ ).

Within the old-old group, older age was positively correlated with greater experienced daily pain ( $r = .29, p < 0.05$ ). External regulation was found to be negatively correlated with age ( $r = .48, p < 0.01$ ). Age was found to be positively correlated with

personal relation with others ( $r = .28, p < 0.05$ ). Pain was positively correlated with purpose in life ( $r = .34, p < 0.05$ ). Increased number of activities correlated with increased personal growth ( $r = .35, p < 0.05$ ). Internal regulation was positively correlated with being widowed ( $r = .46, p < 0.05$ ). Increased age was negatively correlated with external regulation ( $r = -.48, p < 0.01$ ). Being widowed was positively related well-being ( $r = .46, p < 0.05$ ). Self-determining independence was negatively correlated with amotivation ( $r = -.36, p < 0.05$ ). Decreased overall well-being was significantly correlated with greater amotivation ( $r = -.53, p < 0.05$ ). Additionally, higher amotivation was related to increased external regulation ( $r = .60, p < 0.01$ ). As predicted, greater, intrinsic motivation was significantly associated with greater frequency of activity ( $r = .51, p < 0.01$ ).

#### *Age Group Differences*

In order to examine whether there were mean differences on activity level, motivation, and well-being between age groups, *t*-test analyses were undertaken. Interestingly, the only significant group differences were found on Ryff's Personal Growth  $t_{(1,89)} = 4.41, p < .001$ , Purpose in Life  $t_{(1,85)} = 2.97, p < .001$ , and Total well-being score,  $t_{(1,63)} = 2.08, p < .05$ . In all three cases, the young-old age group means were significantly higher than the old-old group means. Surprisingly, no age group differences were found with regard to motivation.

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## Chapter 5

### Discussion

#### *Major Findings*

Four out of the six hypotheses were confirmed. The first hypothesis that was confirmed was that higher intrinsic motivation and higher frequency of activity were correlated; the more intrinsically motivated an individual was the more frequently they engaged in an activity. This makes sense, as those that are intrinsically motivated find the activity they are engaging in exciting, and worth their time. In order for an individual to want to start and/or continue participating in an activity, they must find the activity to be fulfilling and gratifying. This finding may help activity professionals understand that in order to help individuals get involved, the activity needs to be something the person wants and enjoys doing; thus, supporting self-determination theory.

The second hypothesis that was confirmed was that more frequent activity was correlated with higher well-being. Possibly, this finding suggests activity does indeed contribute to an individual's well-being. Since the two are correlated, causal connection cannot be determined, that is, it is hard to know that if activity is what leads to a higher sense of well-being, or if those that have a higher sense of well-being are more likely to get out and be involved. Presumably, a combination of the two are likely present. Further investigation is necessary in understanding how these two variables are related.

The third hypothesis that was confirmed was the higher the internal regulation, the more activities a person engaged in. Since internal regulation is the most autonomous regulation, it makes sense that this type of motivation would be correlated with increased number of activities. And finally, the fourth hypothesis to be confirmed was self-reported

health related was correlated with increased number of activities. It makes sense that the better a person's perceived health, the more activities he or she would engage in.

As previously discussed, frequency of activity and number of activities were separated into two groups when running correlational analysis. Different correlations were found among these two variables. With regard to the results, frequency of activity was correlated with intrinsic motivation and a greater sense of well-being, while internal regulation and self-reported health were correlated with number of activities. Since these two variables (frequency of activity and number of activities) were separated into two separate variables it is interesting that two of the hypotheses were correlated with number of activities and two were correlated with frequency of activity. Perhaps these findings are due to factors such as regimen or willingness to try new things. Possibly intrinsic motivation is linked with having a set regimen which contributes to overall well-being, and internal regulation is linked with a willingness to try new things. An interesting question for the future is why an individual participates and continues to participate in a certain activity.

The two hypotheses that were disconfirmed were external regulation was not found to be correlated with a decrease in frequency of activity, nor was amotivation. This finding was surprising, but a possible explanation would be that since individuals self selected to be a part of the study, perhaps those that are externally regulated, or amotivated were less likely to participate in the study. A bigger sample size could change these findings, as a larger sample might help to capture those that are externally regulated or amotivated.



Other non-hypothesized results were found. For example, as previously discussed, as a person ages they reported engaging in fewer activities. This finding could help to support the theory of selective optimization with compensation theory. According to this theory individuals may choose to participate in fewer activities, but focus on those activities that interest them most, as well as focus on doing well in those activities and compensating for any losses faced. Further exploration is needed in understanding if this theory is explaining a link between age and number of activities.

The SIMS was used to measure motivation (all prior studies were conducted using college students) and seemed to be a valid measurement in measuring motivation in older adults. Interestingly, the older the individual's age, the less likely they were to be motivated by outside forces. This finding is remarkable, as it infers that as an individual ages they may be less concerned with social pressures. So, this may indicate that involvement in activity comes from within and is either supported or inhibited by environmental factors. Ryan and Deci (2001) explained that motivation can be influenced by the environment. Environmental factors, such as feelings of choice, recognition, self-direction, threats, negative feedback, etc, may be interesting factors to explore in the future. This information could serve as useful, as creating a supportive environment that includes competence, autonomy and relatedness (Ryan & Deci, 2001) could actually facilitate intrinsic motivation.

Other important correlations worth noting, with regards to SIMS, were the correlations found among scales. Amotivation and external regulation were correlated, which is in line with self-determination theory, as external regulation is the least autonomous type of motivation, next to amotivation. Internal regulation was negatively

correlated with amotivation, since internal regulation is more autonomous, this finding makes sense. And finally, intrinsic motivation was also negatively correlated with amotivation. Since intrinsic motivation is the most autonomous type of motivation, it makes sense that the two would not be correlated, and helps to illustrate that the SIMS may be a good tool to further examine motivation in the older adult population. The correlations observed among scales, are important, as they help to validate the scale within the older adult population. These findings are consistent with Guay et al. (2000) original findings when assessing validity of the scales. For example, correlations among subscales were found, along with relations found among SIMS and self-determination theory (Guay et al., 2000). Although the scales were correlated, further investigation needs to be conducted to assess the construct validity of the scale among older adults.

With respect to well-being, one of the most interesting findings was that both positive relations with others and personal growth were related to greater frequency of activity. This suggests that maybe engaging in regular activity is associated with increased personal growth and positive relations with others. Having a positive relationship with others is in line with social support theories, in that having positive relationships with others likely contributes to activity level, in that a person may be more apt to get out of the house and participate in activities. Since personal growth and intrinsic motivation were also correlated, these findings indicate that those individuals scoring higher on the personal growth section are likely motivated by an innate drive, and may have always been intrinsically motivated. Interestingly, the older the individual was, the lower they scored on the personal growth and purpose in life measures. This finding is actually in line with Ryff's previous findings. These findings were suggested by

correlational analyses and *t*-test analyses; however, causal linkages were not examined here so we can only think about associations between these variables. Recall that there were only significant group mean differences on personal growth, purpose in life, and total well-being between the young-old and old-old age groups. This finding has implications for future research, in that maybe senior programming should focus on helping seniors find a purpose in life in order to maintain, or even enhance, personal growth, as opposed to just trying to encourage activity participation without addressing older adults' social and psychological needs.

### *Limitations*

This study involved a convenience sample. Since individuals self-selected to be a part of the study, the study cannot be generalized to all older adults. It could be that people that engage in lots of activities, and have a higher sense of well-being were the individuals that chose to participate in the study. A cross-sectional design was used for the study, therefore age-related differences cannot be assessed. A longitudinal study would be necessary in order to test for age-related differences. Due to high scores among scales, social desirability could be a factor influencing results, or the group surveyed could be a vibrant group. The group surveyed was highly educated, mostly white, and mostly female. This makes it difficult to understand gender and race differences, a more diverse group of seniors needs to be recruited for future studies. Therefore, the results are not generalizable to all Nevada seniors. Since correlational analysis was the primary form of statistical analysis used for the study, it is impossible to make causal inferences. Nevertheless, motivation and well-being findings were consistent with the available body of research.

### *Areas for Future Research*

After completing the study, several questions arose. One of the biggest questions is what would this same study look like if it was a longitudinal study instead. As discussed previously, the cross-sectional design of this study does not allow age-related findings. If the same people could be studied over time, age-related changes in motivation and well-being might be observed. Another interesting question to ask participants would include finding out more information about their chronic conditions. It would be interesting to examine links between well-being, types of motivation and chronic conditions. In that same realm, asking other questions, such as those measuring depression and cognitive capacity would be interesting to examine how they affect well-being and motivation. These findings would be important, as increased well-being has been shown to help cut healthcare costs and help maintain independence. One more question that would be of interest is why the population engage in activities. The answers to this question could help gerontologists understand better what leads individuals to continue participating in activities, and what makes them try new activities. These responses could lead to a greater understanding of why older adults engage in the activities that they choose.

As previously discussed, another appealing topic to examine is what kind of environment fosters/enhances a person's natural inclination to remain active. Competency, autonomy, and relatedness would be important factors to consider when looking at environmental factors. Understanding environmental factors, could lead to valuable knowledge of how to get and keep seniors engaged, rather than just creating programs, and telling them they are 'good' for them. Since social pressure is not likely to

facilitate intrinsic motivation, understanding what does, would be of interest. Combining the theory of selective optimization with compensation with self-determination theory would make an interesting study. Understanding that as individual's age, they participate in fewer activities, it would be beneficial to talk to the seniors and learn what it is they have always enjoyed doing. This could then lead to assisting the senior with brainstorming ways in which he or she could still participate in those activities, but maybe in a modified way. Being able to continue the activity the senior has always participated in could lead to higher intrinsic motivation. This may be a way to help seniors stay engaged in activity, as well as feelings of personal growth and purpose in life. It is likely than when a person feels like they can no longer do the things they have always done, they may feel as if they are lacking a purpose, and feel stagnate in their life. If these two aspects of well-being could be enhanced, so could potentially the person's overall well-being.

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## Appendices

## Appendix A

University of Nevada, Reno Study:  
Examining the activity level among older adults: A pilot study

A. DEMOGRAPHIC INFORMATION

Gender:

- 1 = Male  
 2 = Female

Age: \_\_\_\_\_

Race:

- 1 = Caucasian  
 2 = African American  
 3 = Asian  
 4 = Native American  
 5 = Hispanic  
 6 = Other or Mixed: Specify: \_\_\_\_\_

Marital Status:

- 1 = Never married  
 2 = Divorced  
 3 = Separated  
 4 = Widowed  
 5 = Living as married (cohabitating)  
 6 = Married

For above, indicate the number of years: \_\_\_\_\_  
(Code # of years or 88=N/A)

Number of Years of Education: How many years did you attend school? (i.e., High School = 12; Bachelors degree = roughly 4; Masters degree = roughly 2; Ph.D. = roughly 4: Therefore, 12 + 4 + 2 + 4 = 22)

\_\_\_\_\_

What is/was your primary occupation you had even if retired now (be specific; the job you had for the longest time):

Overall, how would you rate your health?

- 1 = Poor  
 2 = Fair  
 3 = Good  
 4 = Excellent

Do you experience pain on a daily basis?

- \_\_1 = Yes
- \_\_2 = No

If you answered YES to the previous question, please rate the intensity of the pain that you experience.

- \_\_1 = Extremely Painful
- \_\_2 = Moderately Painful
- \_\_3 = Somewhat Painful
- \_\_4 = Some Discomfort
- \_\_5 = Occasional Discomfort or Pain

Please continue to the next page!

B.) The Situational Motivation Scale (SIMS Modified)

Directions: Take a moment to think about the activity you participate in the most. Please read each item carefully and answer each question honestly. Using the scale below, please fill in the number that best describes the reason why you are currently engaged in this activity.

Answer the item according to the following scale:

1: Strongly Disagree; 2: Disagree; 3: Agree; 4: Strongly Agree.

Why are you currently engaged in this activity?

1. Because I think that this activity is interesting \_\_\_\_\_
2. Because I am doing it for my own good \_\_\_\_\_
3. Because I am supposed to do it \_\_\_\_\_
4. There may be good reasons to do this activity but  
personally I don't see any \_\_\_\_\_
5. Because I think that this activity is pleasant \_\_\_\_\_
6. Because I think that this activity is good for me \_\_\_\_\_
7. Because it is something that I have to do \_\_\_\_\_
8. I do this activity but I am not sure if it is worth it \_\_\_\_\_
9. Because this activity is fun \_\_\_\_\_
10. By personal decision \_\_\_\_\_
11. Because I don't have a choice \_\_\_\_\_
12. I don't know; I don't see what this activity  
bring me \_\_\_\_\_
13. Because I feel good when doing this activity \_\_\_\_\_
14. Because I believe that that this activity is  
important for me \_\_\_\_\_
15. Because I feel that I have to do it \_\_\_\_\_
16. I do this activity, but I am not sure it is a  
good thing to pursue it \_\_\_\_\_

Please continue to the next page

C.) Self-Reported Involvement in Activities

The literature does not shed light on why older adults engage in activity, please answer the following questions as accurately as possible.

Directions: Please list the activities you participate in, and note how often you engage in this activity. Please list all activities you participate in. Please note: activities do not have to be planned activities, and activities may also include outings.

<b>List activities you like to do (i.e. Bunco)</b>	<b>How often do you do this activity (i.e. 2 times/week)</b>
1.)	1.)
2.)	2.)
3.)	3.)
4.)	4.)
5.)	5.)
6.)	6.)
7.)	7.)
8.)	8.)
9.)	9.)
10.)	10.)



### D.) Six Dimensions of Psychological Wellness

The following set of questions deals with how you feel about yourself and your life.

Please remember that there are no right or wrong answers.

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
1. Most people see me as loving and affectionate.	1	2	3	4	5	6
2. Sometimes I change the way I act or think to be more like those around me.	1	2	3	4	5	6
3. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
4. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
5. I feel good when I think of what I've done in the past and what I hope to do in the future.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
8. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.	1	2	3	4	5	6
9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. In general, I feel that I continue to learn more about myself as time goes by.	1	2	3	4	5	6
11. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
12. In general, I feel confident and positive about myself.	1	2	3	4	5	6
13. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
14. My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
15. I do not fit very well with the people and the community around me.	1	2	3	4	5	6
16. I am the kind of person who likes to give new things a try.	1	2	3	4	5	6
17. I tend to focus on the present, because the future nearly always brings me problems.	1	2	3	4	5	6
18. I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
19. I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6
20. I tend to worry about what other people think of me.	1	2	3	4	5	6
21. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
22. I don't want to try new ways of doing things - my life is fine the way it is.	1	2	3	4	5	6
23. I have a sense of direction and purpose in life.	1	2	3	4	5	6
24. Given the opportunity, there are many things about myself that I would change.	1	2	3	4	5	6
25. It is important to me to be a good listener when close friends talk to me about their problems.	1	2	3	4	5	6
26. Being happy with myself is more important to me than having others approve of me.	1	2	3	4	5	6
27. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
28. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
29. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
30. I like most aspects of my personality.	1	2	3	4	5	6
31. I don't have many people who want to listen when I need to talk.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
32. I tend to be influenced by people with strong opinions.	1	2	3	4	5	6
33. If I were unhappy with my living situation, I would take effective steps to change it.	1	2	3	4	5	6
34. When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6
35. I don't have a good sense of what it is I'm trying to accomplish in life.	1	2	3	4	5	6
36. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6
37. I feel like I get a lot out of my friendships.	1	2	3	4	5	6
38. People rarely talk to me into doing things I don't want to do.	1	2	3	4	5	6
39. I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6
40. In my view, people of every age are able to continue growing and developing.	1	2	3	4	5	6
41. I used to set goals for myself, but that now seems like a waste of time.	1	2	3	4	5	6
42. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6
43. It seems to me that most other people have more friends than I do.	1	2	3	4	5	6
44. It is more important to me to "fit in" with others than to stand alone on my principles.	1	2	3	4	5	6
45. I find it stressful that I can't keep up with all of the things I have to do each day.	1	2	3	4	5	6
46. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.	1	2	3	4	5	6
47. I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
48. For the most part, I am proud of who I am and the life I lead.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
49. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
50. I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
51. I am good at juggling my time so that I can fit everything in that needs to be done.	1	2	3	4	5	6
52. I have a sense that I have developed a lot as a person over time.	1	2	3	4	5	6
53. I am an active person in carrying out the plans I set for myself.	1	2	3	4	5	6
54. I envy many people for the lives they lead.	1	2	3	4	5	6
55. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
56. It's difficult for me to voice my own opinions on controversial matters.	1	2	3	4	5	6
57. My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.	1	2	3	4	5	6
58. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
59. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
60. My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
61. I often feel as if I'm on the outside looking in when it comes to friendships.	1	2	3	4	5	6
62. I often change my mind about decisions if my friends or family disagree.	1	2	3	4	5	6
63. I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.	1	2	3	4	5	6
64. For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
65. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
66. Many days I wake up feeling discouraged about how I have lived my life.	1	2	3	4	5	6
67. I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
68. I am not the kind of person who gives in to social pressures to think or act in certain ways.	1	2	3	4	5	6
69. My efforts to find the kinds of activities and relationships that I need have been quite successful.	1	2	3	4	5	6
70. I enjoy seeing how my views have changed and matured over the years.	1	2	3	4	5	6
71. My aims in life have been more a source of satisfaction than frustration to me.	1	2	3	4	5	6
72. The past had its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6
73. I find it difficult to really open up when I talk with others.	1	2	3	4	5	6
74. I am concerned about how other people evaluate the choices I have made in my life.	1	2	3	4	5	6
75. I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
76. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
77. I find it satisfying to think about what I have accomplished in life.	1	2	3	4	5	6
78. When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6
79. My friends and I sympathize with each other's problems.	1	2	3	4	5	6
80. I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
81. I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
82. There is truth to the saying that you can't teach an old dog new tricks.	1	2	3	4	5	6
83. In the final analysis, I'm not so sure that my life adds up to much.	1	2	3	4	5	6
84. Everyone has their weaknesses, but I seem to have more than my share.	1	2	3	4	5	6

E.) We are interested in your ideas of what successful aging is. What does that mean to you—to be a successful ager? Please explain:

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F.) Please rate how important each of these things listed below is to Successful Aging. Please use the following scale and record a number on the line next to each item:

1	2	3	4	5	
Not at all important	Somewhat important			Very important	
a.	Living a very long time.				_____
b.	Remaining in good health until close to death.				_____
c.	Feeling satisfied with my life the majority of the time.				_____
d.	Having the kind of genes (heredity) that would help me age well				_____
e.	Having friends and family who are there for me.				_____
f.	Staying involved with the world and people around me.				_____
g.	Being able to make choices about things that affect how I age, like my diet, exercise, and smoking.				_____
h.	Being able to meet all of my needs and some of my wants.				_____
i.	Not feeling lonely or isolated.				_____
j.	Adjusting to changes that are related to aging.				_____
k.	Being able to take care of myself until close to the time of my death.				_____
l.	Having a sense of peace when thinking about the fact that I will not live forever.				_____
m.	Feeling that I have been able to influence others' lives in positive ways.				_____
n.	Having no regrets about how I have lived my life.				_____
o.	Being able to work in paid or volunteer activities after usual retirement age (65 years).				_____
p.	Feeling good about myself.				_____
q.	Being able to cope with the challenges of my later years.				_____
r.	Remaining free of chronic disease.				_____
s.	Continuing to learn new things.				_____
t.	Being able to act according to my own inner standards and values.				_____

Thank you for your participation in this survey! If you would like a final report, which includes all of the responses grouped together, please provide your address to Karen Kopera-Frye.

## Appendix B



### Script for Recruitment of Subjects

Hello, my name is Karen Kopera-Frye (the PI, not Heather Myers, Co-PI). I am a faculty member at the University of Nevada, Reno. I am conducting research that is examining various activities that older adults participate in. I am looking for participants to volunteer for a research study which involves a one-time survey that will take approximately 30 minutes of your time. This survey can be taken at a time/date/location convenient for you, preferably here at Classic Residence by Hyatt. Survey questions include: demographic or background characteristics, a scale measuring motivation, self reported health, self reported involvement in activities, and psychological wellness. There is no cost involved. Study participants must be 60 years or older and have English as their first language. If you are interested in participating, please call Karen Kopera-Frye, Associate Professor at UNR and PI at (775)784-7010 to obtain more information: Please leave your contact information on how I might call you back and answer any questions you have and arrange the surveys. You may take a survey at this time and leave survey in mail room once you have completed the survey. Once you have completed a survey, your name will be entered into a drawing to win one of three \$25.00 gift cards to Raley's.