Correlation of active participation in learning and positive self-concept in older adults
by Kay Ann Tippett

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University

Abstract:
The purpose of this investigation was to (a) determine if there was a correlation between active participation in learning and a positive self-concept in older adults; (b) find if age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility and residence of older adults were significantly related to positive self-concept; and (c) ascertain whether older adults who frequently participated in activities at a senior citizens center had a more positive self-concept than those older adults who did not.

The Tennessee Self-Concept Scale was used to provide information about the dependent variable, self-concept. A researcher-prepared instrument was used to acquire data related to the independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence.

A total of 358 volunteer older adults completed both the Tennessee Self-Concept Scale and a researcher-prepared instrument which provided data used for grouping the participants. Data from the two instruments were analyzed using a step-wise multiple regression and one-way analyses of variance.

The findings of this study indicate that among the independent variables, only educational attainment was significantly related to a positive self-concept. Regarding educational attainment, it was found that those who had less than a high school education had higher mean self-concept scores than those with a high school or post-secondary education. Although age and income were not significantly related to a positive self-concept, significant differences in mean self-concept scores were found within the ranges of these variables.

It was concluded that older adults in this sample with less than a high school education and older adults with less than $10,000 annual income have a more positive self-concept than older adults who are more highly educated and who have higher annual incomes.

CORRELATION OF ACTIVE PARTICIPATION IN LEARNING AND POSITIVE SELF-CONCEPT IN OLDER ADULTS

by

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APPROVAL

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Kay Ann Tippett

This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

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CHAPTER 1

INTRODUCTION

This study was prompted by the observation that some older people seem to adjust to the inevitable process of aging and appear to be happy and feel good about themselves while others sink into depression or lead a passive, inactive existence superseded by preoccupation with their physical ailments, faltering capabilities, and feelings of helplessness and uselessness.

According to the American Association of Retired Persons (1987 and 1989) people aged 65 and over, who numbered 30.4 million, comprised 12.4 percent of the total population in 1988 and represented the fastest growing age group in the United States. While those 65 and over have increased by 18 percent since 1980, those aged 85-89 have increased by 34.7 percent. The 95-99 year old group has nearly doubled since 1980, and it is predicted that the 1990 census will show 57,000 Americans 100 years of age or older (Waldrop and Exter, 1990). The American Association of Retired Persons predicts that by the year 2000, those persons 65 years and older will represent 13 percent of the entire population rising to 21.8 percent by 2030.

Aging is a natural phenomenon of the life cycle which brings with it a number of physical and psychological maladies. It is commonly accepted that as one ages, both audio and visual acuity begin to diminish. With age comes the likelihood of deteriorating health; many older adults suffer the effects of arthritis, heart ailments, hypertension and diabetes. Studies have shown that there is a positive correlation between physical and psychological deterioration. In their study on the effects of illness and age upon aspects of personality, Schwartz and Kleemeier (1965) hypothesized that there was a correlation between both age and illness and lower self-concept but found a significant relationship only between ill health and low self-concept. It appears, therefore, that it cannot be assumed that as persons become older, their self-concept becomes poorer.

Studies over the past 40 years have revealed that a number of factors including education have an effect on older adults' self-esteem. In his report on 30 years of research on older adults, Larson (1978) examined several variables including socioeconomic factors and reported a correlation between well-being and education. However, "older persons at middle levels of education reported the highest well-being" (p. 113). A study on the impact of subjective age and stigma of older adults (Ward, 1977) revealed that education and income were more important in determining self-esteem of men than of women. While the pursuit toward youthfulness and

physical well-being remains dominant in our society, the number of older adults in the United States is increasing not only in numbers but in percentage of the population. Fowles (1983) cited the White House Conference on Aging as stating that the great majority of today's older Americans are healthier, wealthier, better cared for, and more self reliant than any in the country's history. About two-thirds of persons 65 years of age or older view themselves as being in good or excellent health compared to others the same age (Fowles, 1983). Although four out of five older adults reported chronic health problems, they were able to function adequately despite their illnesses. Neugarten and Neugarten (1986) reported that half of those aged seventy-five to eighty-five report no health problems which create a major limitation in everyday activity and over one third of those 85 and older report no limitations due to health. As age increases, however, chronic and disabling conditions become more prevalent significantly affecting about one-half of those 85 years or older (Fowles 1983).

Although it is not uncommon to witness older adults who are physically active, educationally productive, and socially involved, many of these older citizens lead more passive lives due to a variety of restrictions. Illness, lack of transportation, and limited resources are all factors which influence the activity of older adults. Older adults often face unfamiliar crises resulting from the death of a spouse

or a friend; diminishing health, strength and stamina; and lower socio-economic status due to lowered income. The elderly often find themselves losing control of their lives if they are no longer physically or financially able to live alone and must depend upon others. Often these crises seem overwhelming to the older adult who sees him/herself in a new role of dependency and diminished self-worth. Too often, the older adult chooses to end life by suicide rather than deal with life's situations.

Suicide rates are relatively high among the elderly and rise as age increases. The Billings (Montana) Gazette (March 10, 1991) reported that the United States elderly suicide rate rose dramatically in the 1980s (p. 2-E). The National Center for Health Statistics (Monthly Vital Statistics, 1986) reported that 40.9 percent of all suicides committed in 1985 involved persons 65 and older with 23.5 percent being from the 75- to 84-year-old group. Not only do the elderly attempt suicide frequently, but their success rate remains highest of any other age group. As reported by McIntosh (1985, p. 290), the ratio of attempts to completion of suicide by the young is as high as 200 to 1; but among the old, it is about 4 to 1. Suicide rates for women peak in middle age and decline somewhat thereafter; however, rates for men continue to rise throughout old age. Men over the age of 75 display the highest suicide rate of any age group in the population (Roybal, 1988, p. 189). Montana, where

this study was conducted, currently ranks sixth highest in the nation in suicides--54 percent higher than the national average. Montana's Department of Health and Environmental Sciences reported that in 1989, 39 percent of the state's suicides were committed by persons aged 55 years and older. Persons 65 and older represented 27.3 percent of the state's suicides in 1989--an increase of 6.4 percent over the previous year.

The elderly often suffer from low income and poor health. This is a time of life when older Americans experience the death of a spouse and friends, which adds to their difficulty in adjusting to other debilitating effects of old age. Lack of transportation and passivity often result in loneliness, depression, and low self-concept. Coopersmith (1967) and Krakowski (1971) reported relationships between negative self-concept and depression. In a study of depressed women, Gardner and Oei (1981) found that " . . . low self-esteem or self-concept is reported to be an important contributory factor to development and maintenance of depression . . . " (p. 128). Consequently, a poor self-concept can have devastating effects on the older citizen. Loneliness and accompanying depression often emerge when older adults are left to sit alone and dwell on the miseries of old age rather than to deliberately pursue some type of activity.

Depression is the most common psychiatric complaint among older Americans (Berger and Hecht, 1989). It is commonly known that physical activity works effectively to diminish depression and feelings of worthlessness. Recent studies on the correlation of physical exercise and self-concept include: (Ledwidge, 1980; Folkins and Sime, 1981; Blumenthal et al., 1982; Sachs and Buffone, 1984; Stones and Kozma, 1985; Long, 1989; and Berger and Hecht, 1989). Fisher (1979, 1983, 1985, 1986a, 1986b, 1987), Gardner and Oei (1981), Erdwins, Mellinger and Tyer (1981), Harless and McConnell (1982), and Branscum (1983) have conducted research on the effect of self-concept on participation in learning activities. What has not been sufficiently studied is the effect of mental activity, or learning on self-concept.

Statement of the Problem

It would appear that educational attainment may not have a major impact on self-concept of older adults. Does ongoing education, however, have an effect on self-concept? Do older adults who continue to participate in learning activities have a higher self-concept than those who do not continue to engage in learning activities as they grow older? Or does a more positive self-concept lead people to engage in educational activity? The purpose of this study was to determine if continued, active participation in learning was related to a positive self-concept in older adults. Learning

activities included participation in university, college, vocational-technical school, and adult education courses; taking a course or a lesson at a senior center or retirement home; learning a craft or skill through private lessons or self-taught project; participation in a study group or workshop; and self-initiated reading or research to learn about some topic.

A review of related literature indicated that a number of variables may have an impact on the self-concept of older individuals. A secondary purpose of this study, therefore, was to explore the variables age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence in terms of how they relate to self-concept.

It may be that frequent participation in activities at a senior citizens center is an indication of a positive self-concept in older adults. Therefore, a third purpose of this study was to ascertain whether those older adults in this study who participated in senior citizen center activities one or more times a week had a more positive self-concept than those who did not.

Statement of the Questions

The stated purpose of this study was addressed by posing the following questions: (1) Is continued active participation in learning related to a positive self-concept?

(2) Do the selected attribute variables relate to the total self-concept score of older adults as measured by the Tennessee Self Concept Scale. The selected attribute variables were participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence. (3) Do older adults who participate in activities at senior citizens centers at least once a week have a more positive self-concept than those who do not? The following questions were tested:

Question 1: How much of the variance in the dependent variable, self-concept, is accounted for by knowledge of the independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence?

Question 2: What is the unique relationship of each of the independent variables to the total self-concept score?

Question 3: Is there a difference in the self-concept of older adults who participate in senior center activities and those older adults who do not?

Significance of the Study

In recent years there has been a marked increase in interest in the aged and the effects of aging. Considerable research has been done on how and why older adults

participate in educational activities and how adults learn. An extensive search of the literature indicated that an abundance of studies have been done on the physical and psychological effects of aging and a number of studies have examined reasons why older adults participate in educational activities. However, there appears to be little research in the area of outcomes of participation in learning activity and very little research on the self-concept of the elderly.

The results of this study provide data related to the relationship between a number of variables and the self-concept of older adults. For adult educators the study provides data related to the types of educational opportunities older adults are utilizing. This data should be helpful to educators in planning programs geared toward the interests and capabilities of older adults so that they may be encouraged to continue to learn and to keep their minds as well as their bodies active as they age. The study also provides insights into the need for adult educators to be aware of the self-concept of older adults, particularly those who are more highly educated and have higher incomes.

> Public education is also important in raising the awareness of geriatric problems and suicide clues in order to lessen the taboos in discussing suicide and in developing a more positive attitude toward the aged (McIntosh and Santos, 1985-1986, p. 292).

Senior citizens centers and local and state councils on aging may find data from this study helpful in planning meaningful

programs particularly geared toward helping seniors maintain or improve their self-concept.

With the expenditures for health care of the elderly projected to total $120 billion or an average of $4,202 per year for each older person (American Association of Retired Persons, 1987), government agencies and taxpayers have a vested interest in the overall health of the older population. The results of this study identified factors that predict positive self-concepts in older adults and may have implications for the medical profession and mental health community. "The individual's self-concept has been demonstrated to be highly influential in much of his or her behavior and also to be directly related to general personality and mental health" (Roid and Fitts, 1988, 1). As cited by Roybal (1988), the mental health needs of the elderly in this country are not being adequately met. A growing concern is that even when older adults do seek treatment for mental problems, they tend not to seek help from mental health professionals but present their symptoms to general physicians instead. Waxman, Carner, and Klein (1984) reported that the "striking positive relationship between depression score and reported frequency of physician visits" found in their study was "testimony to the importance of the general physician's ability to distinguish psychiatric from physical symptoms and complaints" (p. 28). Waxman, Carner, and Klein also contended that the general physician

represents the first line of defense for many older persons with psychiatric disorders, which includes depression. General practitioners and counselors, then, should be aware of the importance of self-concept on the overall physical and mental well-being of aging adults. Research by David C. Clark (AARP Bulletin, 1991, p. 7) disclosed that "older suicide victims had experienced relatively few high-stress life events such as the death of a spouse or financial ruin." However, Clark did find that 65 percent of those who committed suicide were depressed. Clark contended that "it is vital that health professionals and the public become more sensitive to signs of mental illness, especially depression."

> The confirmation of the general finding that the elderly are the highest risk group for suicide . . . underscores the special need to be alert to suicidal clues and provide timely assistance for older persons at risk. Both education of the public and particularly mental health and other service personnel is urgently needed to raise awareness and sensitivity to suicidal clues and the problem of suicide in general (McIntosh and Santos, 1985-86, p. 137).

Although self-concept usually remains stable in the later years (Tucker and Umbarger, 1979, p. 61), self-concept can change and new attitudes can be learned through intervention by skilled helpers (MacKeen and Herman, 1974, p. 210). "A knowledge of how an individual perceives himself or herself is useful to the professional who is attempting to help or to evaluate the individual" (Roid and Fitts, 1988, 1).

Assumptions and Limitations of the Study

1. It was assumed that each individual in this study was mentally and physically able to respond to the questions.
2. Some respondents did experience visual or hearing deficiencies.
3. Testing procedures were uniform and were conducted by the researcher and one trained assistant.
4. The population for this study was confined to older adults attending functions at senior centers and residents of retirement homes in selected cities in Montana.
5. There was no attempt to indicate causality in this study.
6. The reliability and validity of the Tennessee Self-Concept Scale, the measurement of self-concept used in this study, has been established.

Definitions of Terms Used

For the purpose of this study, terms used in the study are defined as follows:

Older adult shall be defined as any adult who is at least 60 years of age. "Most studies today appear to define elderly as being 60 years of age and above" (Verrillo and Verrillo, 1985, p. 333).

Adult education is a term "used to describe a process through which people continue to learn after formal schooling ceases" (Smith, 1982, p. 37).

Learning activities include learning activities which appear on the researcher-developed instrument (see Appendix A). The activities range from formal college or university courses to self-initiated reading for personal improvement or the acquisition of further knowledge on a selected topic.

Adult learning is a "process which encompasses practically all experiences of mature men and women by which they acquire new knowledge, understanding, skills, attitudes, interests, or values" (Knowles, 1980, p. 25). For the purpose of this study, participants confirmed such learning by responding to the learning activities portion of the researcher-developed instrument.

Participant is any person who undertakes a learning project, either in an adult education program or as a self-directed learner.

Self-concept is "how we see ourselves and how we feel about ourselves" (Stephens and Jacobus, 1985, p. 50). For the purpose of this study, self-concept is measured by the Total Score on the Tennessee Self-Concept Scale.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The review of literature in this chapter is divided into several parts, each part dealing with variables related to self-concept in older adults. Variables considered include the following:

Participation in Learning
Age
Gender
Marital Status
Educational Attainment
Health
Income
Employment Status
Social Activity
Mobility
Residence

Some older people seem to accept and adjust to the inevitable process of aging and appear to be happy and well-adjusted. Others, however, sink into depression or lead a passive, inactive existence constrained by a preoccupation with their physical ailments, faltering capabilities, and feelings of helplessness and uselessness. What is being suggested is that mental stimulation as well as physical activity is necessary to the developmental and psychological well-being of older adults. Although there are various

factors which influence one's self-concept, the question to be addressed here was whether active participation in learning can have a positive effect on the self-concept of the aging.

Participation in Learning

"Evidence is piling up that most of our mental skills remain intact as long as our health does if we keep mentally and physically active" (Meer, 1986, p. 60). The Billings (Montana) Gazette (June 11, 1991) reported that former president of the American Geriatrics Society, Dr. Walter M. Bortz II, was credited with saying that "failing to use mind and body is the single largest crippler of an aging population" and that "both brain and body need energy flowing through them to work properly" (p. 2-E). When Long (1989), in his study on older men and leisure time, asked what advice his respondents would give to others encountering retirement, 28 percent stressed the importance of keeping mentally active. Mental activities suggested by Long's participants included formal classes, lectures, organized activities, learning new skills from others or by teaching themselves, reading, and viewing television.

As the "graying of America" continues, there should be a continued effort to understand the aged, the process of aging, the effects of aging, and the implications for education. As stated by Bailey (1976), "life-long education

can now be reasonably expected to be consonant with long-life education" (p. 39). Many elders want to learn and are capable of learning. Aging does not cause malfunction of the brain but rather the brain functions differently utilizing past experiences to process information (Branscum, 1982). It often takes older adults longer to learn, but given enough time, most older adults are able to learn whatever they choose to learn. Further, as Meer (1986) pointed out, "slowing down doesn't make much difference in most of what we do" (p. 60). Meer reported that Zelinski tested the ability of older persons to read and understand and found that people in their 70s and 80s show no significant decline in comprehension and that older women and men were able to read the tests just as fast as younger participants (p. 63). Older Americans are increasingly taking advantage of learning opportunities. Those 65 and older enrolled in adult education of all kinds grew from 765,000 in 1981 to 866,000 in 1984 (Horn and Meer, 1987, p. 80). The importance of learning is reemphasized by Schiamberg, Chin and Spell (1985) who reported that research findings indicated an "expected and positive relationship" between such noncognitive variables as positive self-concept and high levels of self esteem and academic achievement (p. 20).

Petry and Jones (1984) conducted a study to determine the impact of educational experience on peoples' lives. This study examined the effects of participation in adult basic

education on the quality of life. Variables selected for this study included self-expression, self-concept, family life, life in general, leisure, relationships with others, and society. Questionnaires were mailed to 89 supervisors of Adult Basic Education (ABE) programs which served 2,225 students located throughout Tennessee. From an analysis of the data from 1,623 ABE students, Petry and Jones concluded that participation in ABE programs had a positive effect on the individual's life in terms of each of the measured variables. In particular, it was found that students believed that participation in ABE helped them to develop a more positive self-concept. Moreover, older adults, those in the 51-60 age group, and those who had been in the ABE program longer than 18 months perceived a more positive effect on their self-concept than did the 41-50 year group and those who had participated less than 18 months. Petry and Jones attributed this difference to the fact that older adults "have a more thorough understanding of others and use ABE classes for consciously developing self-concepts that will rank them more equally with peers who reflect confidence in themselves" and "the effect of the socialization factor in the education of adults is increased with time spent in achieving educational goals because learners begin to equate themselves with their more well-educated peers" (p. 7). Among the findings of the study was that "males, older adults, and those who had been in the program longer than 18

months perceived the program to be assisting them with self-concept development to a greater extent than did other groups" (p. 19).

Chavis (1980) studied the relationship between self-concept and reading/interest behavior of 50 older adults to participation in educational activities. Three instruments were used including the Tennessee Self-Concept Scale (modified for Older Adults) by Fitts (1964). One instrument yielded scores on personal self-concept, physical self-concept, and social self-concept. Another instrument measured reading interest/behavior and the third measured frequency and reason for participation. Using a stepwise multiple regression statistical test, Chavis found no variable or combination of variables that significantly predicted participation frequency or overall participation. Personal self-concept, however, does appear to influence the reason for participation in educational activities.

Mizer (1975), in her study on differences between educationally active and noneducationally active older adults, suggested that "educationally active older people are endowed with greater zest for living, have a better self concept, and are generally more satisfied with their lives" (p. 2507-A). Discussing the importance of music education for older adults, Coates (1984) stated that "the older adult who wants to continue to grow can do so only by increasing

his knowledge. New ways of thinking and perceiving develop through the pursuit of a creative interest" (p. 35).

Fisher (1979) conducted a study to determine to what extent educational attainment, anomia, life satisfaction, and situational variables influenced participation in educational activities, the relationship between those variables, and characteristics which distinguished participants from nonparticipants. Fisher identified distinguishing characteristics of active older adults and measured participation motivational factors of 786 active older adults in Wisconsin who were 55 or older. Fisher concluded that numerous factors influence participation including previous educational attainment and awareness of sites where activities are being offered. It was found that older adults participated in learning activities "because they enjoyed being with other people, liked the challenge of learning, and were attracted by the usefulness of the subject matter" (Fisher, 1983, abstract page). Findings of the study indicated that participation depends more on availability of information about programs and interest in the topics than prior educational attainment. "Predictors of participation were more strongly associated with the impact of the learning situation on the potential participant than in the experience and/or attitude of the person" (Fisher, 1979, p. 2410-A).

The literature suggests that those older adults who participate in educational activities derive not only the

benefit of learning but experience a positive self-concept as well. Schiamberg, Chin and Spell (1985), in referring to Langer and Rodin's 1976 study on the effects of choice and enhanced personal responsibility for the aged, suggested that "mindlessness can lead to increased vulnerability to interpersonal external influences which affect one's self-concept and self-esteem" (p. 17). Schiamberg, Chin and Spell further concluded that "individuals regardless of their ages need a minimal amount of active conscious information processing to ensure survival" (p. 17).

As observed by Brockett (1987), numerous studies have been conducted on the involvement of adults in both planned, formal adult education programs and in self-directed learning projects. In his study of 64 adults 60 years of age or older, Brockett found a significant correlation between positive self-concept and overall self-directed learning readiness. Of the eight life satisfaction factors studied by Brockett, only positive mood tone and perceived health had a higher correlation with self-directed learning readiness than did positive self-concept. Coates (1984) stated that older adults experience difficulty in learning new material and may lack motivation to learn new things. Accompanying these problems may be an emergence of old self-concepts, particularly related to learning.

Older Americans are too frequently seen as noncreative, slow thinking people who cannot continue to grow and learn

and be a contributing functional being (Stanford and Alexander, 1982, p. 27). Furstenberg (1989, p. 270) cautioned that persons believing that their mental acuity is "inexorably failing due to age" may avoid situations that are mentally stimulating and challenging, which could further undermine their mental functioning.

As pointed out earlier, older adults are often influenced by the negative attitudes of others and too readily accept the belief that they are too old to learn. "Philosophers, educators and gerontologists agree that the best means of heading off that potentially self-fulfilling prophecy is through education" (Owen, 1985, p. 4).

Age

Demographics. The American Association of Retired Persons (1989) reported that the percentage of the population over 65 is expected to reach 13 percent by the year 2000 and 21.8 percent by 2030. During the 20th century, the older population has been growing at a faster rate than the population as a whole. In 1900, the 4.9 million adults over 60 represented one of every 16 persons. The American Association of Retired Persons (AARP) reported that in 1988 those 65 and over numbered 30.4 million and represented 12.4 percent of the population, about one in every eight Americans. The Billings (Montana) Gazette (June 11, 1991) reported that 1990 census data indicated that those age 65-74

have increased by 16.2 percent since 1980; those 75-84 have increased by 30.1 percent; and those 85 and older have increased by 37.6 percent (p. 1-A).

Census Bureau projections indicated that the number of older people will continue to grow faster than the rest of the population. As those who were born during the depression years reach their 60's, the growth rate will slow somewhat. However, as the baby boomers reach 60, the numbers of elderly will again increase. By 2035, however, the increase is expected to stabilize; but by then there will be more than two and one half times as many persons 65 and older as there were in 1980. Since 1900, the number of persons over 65 in this country has tripled; the population of those 75-84 has increased 12 fold; and the portion of the population over 85 has increased by nearly 23 times. In 1983, about one-fourth of the entire population was 75 and older--a portion which is expected to increase to over one-third by the year 2030. Accounting for 41 percent of the older population in 1986, those 75 years and older will grow to 51 percent by 2005 and will exceed 55 percent by 2050 (Siegel and Taeuber, 1986, p. 83). The very old, those 85 and older and numbering 2.8 million in 1986, has shown the biggest growth spurt. Although those 85 and older make up only 1 percent of the total population, the Wall Street Journal (1990) reported that their numbers have increased 44 percent since 1980 (p. R12).

Life expectancy is predicted to increase and mortality rates will decrease raising the portion of those over 75 from 38 percent to 45 percent by the year 2040. Because of the projected improvement in mortality, the population aged 85 and older is expected to grow even more rapidly than the over 65 group. In 1984 there were 2.4 million people over the age of 85; by 2000 that number is expected to double. Among Americans 65 and over, men 85 years and older account for 7 percent of the elderly male population; women over 85 make up over 11 percent of the elderly female (Soldo and Agree, 1988, p. 13). Those 85 and older will climb to 9 million by 2030 and will again nearly double to 16 million by 2050 (Siegel and Taeuber, 1986, p. 81). By the year 2080, those persons 85 and older will represent one-quarter of the 65 and older population (U. S. Bureau of the Census, 1984). The Bureau of the Census (1984) and Time (February 1988) projected mortality to decline to the year 2005 and then to decline even more slowly reaching an ultimate life expectancy of 78.1 years by 2020 and 81.0 years by the year 2080.

Changes. An inevitable effect of aging is change. Aging brings changes in roles, health and activity (Ward, 1977). Our physical appearance changes and health problems often occur. The body becomes less efficient, energy level declines, and difficulty in seeing and hearing develop. Many highly stressful events occur. Loss of a spouse or close

friend often leaves the elderly person lonely and depressed. Retirement or loss of a spouse's income create sharp reductions in economic resources.

Older adults frequently experience the frustration of feeling useless and unwanted. They are aware of physical and bodily changes and in this society of emphasis on beauty and youth, they feel that they are losing their attractiveness. Owen (1985) aptly described the frustration.

> Many believe that aging means inevitable loss of attractiveness, especially when they seem to be losing so much--hair, teeth, hearing, health, friends, loved ones, mobility, visual acuity, smoothness of skin, even control of one's destiny (p. 10).

Developmental Changes. "Aging does not begin at age 60 or 65. It actually begins at birth" (Berger and Hecht, 1989, p. 118). Everyone experiences certain developmental changes as they age. Nearly 20 percent of persons between the ages of 45 and 54 will experience some hearing loss. Seventy-five percent of all people between 75 and 79 have impaired hearing. Visual acuity diminishes progressively with age. Older adults generally experience a decrease in speed and agility and there is a decline in accuracy of movement. To avoid making mistakes, older adults become more cautious, sacrificing speed to accuracy.

> Some individuals do not accept the fact that they are growing old. It is crucial, however, that one understands that the biological changes that take place are not as critical as the attitude and

activity that one carries into the aging process (Card, 1988, p. 10).

Changes in Self-Concept. "The way people treat us changes and the way we think about ourselves changes, too" (Stephens and Jacobus, 1985, p. 47). There seems to be some question as to how self-concept changes with age. Coates (1984) stressed that the various personal and occupational roles played by individuals and the interaction of those roles provide us with a self-concept and that a change in those roles requires a modification or change in self-concept.

Stephens and Jacobus (1985) compared the "limited self," which is comprised of factors such as our physical appearance, our possessions and our work, to the "real self" which includes our thoughts, feelings, intuitions and an inner sense of calm and knowing--the self which does not age. Stephens and Jacobus warned that "unless we stay in touch with our real self . . . our self-concept tends to remain weak and incomplete" (p. 48). Tucker and Umbarger (1979) claimed that self-concept usually remains stable as one ages. Apparently much of the change in self-concept of the aged is dependent upon the need to feel satisfied with oneself and the perception of society's approval. And yet, Tucker and Umbarger maintained that self-concept is more dependent on inner orientation, and one's understanding of how they are perceived by others may or may not motivate them to change.

In essence, "the way we respond to change in our lives largely depends upon our self-concept . . . a strong self-concept makes it easier to accept change, use it, and grow with it" (Stephens and Jacobus, 1985, p. 47). After reviewing 17 studies that examined age differences in self-esteem, Birren and Schaie (1985) reported that eight of the studies showed a significant positive relationship between age and self-esteem and seven showed no age differences. Most of the studies reviewed showed either no age differences in self-esteem or revealed that older persons had higher self-esteem than younger cohorts. Only one of the studies revealed lower self-esteem in older persons than in younger participants. Birren and Schaie also reported that the older the respondent, the higher the self-satisfaction, especially among women (p. 576). Erdwins, Mellinger, and Tyer (1981) conducted a study of 120 women divided into four different age groups. Using the Total Score of the Tennessee Self Concept Scale as a measure of self-concept, they found no age differences in self-esteem. Birren and Schaie (1985) concluded that "the limited research investigating the contributions to self-esteem other than age suggests that social, situational, and personal life changes, along with attitudes toward older people, are at least as important as chronological age itself" (p. 587). Reviewing 30 years of research on the subjective well-being of older Americans, Larson (1978) concluded that "advancing age is related to a

decline in subjective well-being among persons over 60, but this decline appears to be a product of other negative factors which impinge on the very old" (p. 114). Such factors include declining health, decreased financial resources, loss of spouse and friends, and decreased activity.

A large contributor to negative self-concept is attitude. The self-concept of the older adult will be influenced by his or her own feelings of self-worth and by the attitudes and perceived attitudes of others. Results of Luszcz's (1985-86) study on attitudes toward elderly people suggested that "neither the elderly as a group nor different categories of elderly were seen in a uniformly negative light by themselves or by members of other age groups" (p. 117). Luszcz found that when compared to adolescents and middle-aged women, "the elderly were clearly the most integrated or accepting of themselves" (p. 118).

Conversely, Ward (1977) found a "strong and consistent relationship between acceptance of negative attitudes toward old people and self-derogation" (p. 232). Coates (1984) claimed that "the individual is shaped, in part, by the expectations of society" (p. 35). Too often older adults accept "the myth that we are supposed to deteriorate or stagnate at a certain age" (Owen, 1985, p. 4). "This sort of reasoning is especially damaging because it tends to become self-fulfilling in the sense that when the elderly expect mental stagnation, it is likely to occur" (Owen, 1985, p. 4).

Furstenberg (1989, p. 269) found that people who describe themselves as old tend to exhibit less life satisfaction, lower morale, and lower measures of self-esteem. Self-attribution appears to be a major factor in the self-concept of older adults. As described by Graham (1981) self-attribution occurs when the older adult attributes to himself or herself such characteristics as incompetence, incapability, and forgetfulness, all of which are based on cultural stereotypes. In other words, the elderly commonly perceive themselves and others in their age group as they believe others perceive them.

> Since much in American culture stereotypes older persons in quite negative terms . . . increasing age and specific life events impacting on relevant current self-conceptions may increase their identification with disvalued conceptions, thus producing much negative self-valuation (Birren and Schaie, 1985, p. 549).

In discussing institutionalized older adults, Owen (1985) pointed out that the tendency younger adults have to speak slower, louder, and with deliberate articulation when communicating with older adults makes it even more difficult for the older person to maintain a positive self-concept.

"The terms used to represent or describe older people are a reflection of how they are viewed" (Covey, 1988, p. 297). The labeling of aging and the accompanying stigma for those who accept it create feelings of personal unworthiness and insecurity among the aged (Ward, 1977). Ward conducted a study to investigate the impact of age

labels "middle-aged" and "elderly" on 323 noninstitutionalized residents of Madison, Wisconsin, who were at least 60 years of age. While the sample was representative of the population in terms of sex distribution and marital status, they were more highly educated, had higher income, and were in better health and were more likely to be retired than the overall population. Age identification had a correlation of -.28 with self-esteem, meaning that those who considered themselves to be "elderly" or "old" had a lower self-esteem. Interestingly, however, when the variables in the study which caused age identification; namely, health, age-related deprivation, and age, were controlled, it appeared that the age identification label made no unique contribution to self-esteem. Instead, Ward found that attitudes toward old people are the best predictors of self-esteem when all variables were considered simultaneously.

Horn and Meer (1987, p. 90) suggested that there is a need to replace stereotypes of the elderly with a more realistic understanding that "older people are and should be productive members of society, capable of assuming greater responsibility for themselves and others."

Gender

On the average, women live seven to eight years longer than do men (Horn and Meer, 1987, p. 84). Due primarily to increases in life expectancy, the number of older women in

the United States grew by 760 percent between 1900 and 1980 compared to 504 percent for older men (Fowles, 1983, p. 7). Older women outnumbered older men by almost 6 million in 1980. By 1988, six out of every ten older Americans were women (Soldo and Agree, 1988, p. 12) and by 2030 the difference is expected to grow to 12 million. "The older the age group, the greater the imbalance" (Fowles, 1983, p. 7). Svitil (1990) reported that feminist Betty Friedan "has found that the major problems of aging are not gender-related" (p. 74). Larson (1978) found "no consistent sex differences in well-being for older persons on any type of measure (p. 114). Several studies (Ryff and Baltes, 1976; Foley and Murphy, 1977; Hyde and Phillis, 1979) reported that differences in self-conceptions are less evident in older men and women than in younger counterparts. Ward's (1977) study of 323 noninstitutionalized persons who were at least 60 years of age indicated that "education and income were considerably more important in determining male self-esteem, while age-related deprivation and current activity were more important for female self-esteem" (p. 230). Erdwins, Mellinger and Tyer (1981) studied self-concepts of women in four age groups and found no significant difference in the self-concept of middle-aged women as compared to older women. Further, Erdwins, Mellinger and Tyer suggested that the low scores by the older women simply may reflect a lessening of social interest rather than a low self-concept. Kline et al.

(1990, p. 308) reported that suicide is much higher among men than women.

Marital Status

As reported by the American Association of Retired Persons (1989), 78 percent of older men and 41 percent of older women are married. About one half of all older women (8.1 million) are widows; 1.6 million men are widowers.

> . . . the marital status and living arrangements of elderly men differ greatly from those of elderly women basically because of the huge statistical surplus of the latter and the unavoidable solitude of many. In turn, that is a consequence of the differential death rates by sex and the stronger tendency for widowers to remarry, often not just from among the pool of elderly widows, but from the group of younger unmarried women (Zopf, (1986, p. 81).

Horn and Meer (1987) stated that the more education and income resources a woman has available, the less likely she is to remarry. The reverse is true for men. "After 65 . . . men remarry at a rate eight times that of women" (p. 84). Soldo and Agree (1988) reported that an estimated 71,000 persons 65 and older married in 1985. Of those remarrying, 23.8 percent of the grooms were divorced while 3 of every 4 of the brides were widowed (p. 29).

Zopf (1986, p. 86) indicated that the patterns of divorce in the United States are about the same for both sexes of the older population; however, people who have divorced and not remarried are found more commonly in the 65-74 age group than in the older age groups. The American

Association of Retired Persons (1989) claimed that although only 4 percent of the elderly population is divorced, since 1980 their numbers (1.2 million) have increased more than twice as fast as the older population as a whole. Referring to changes in traditional rhythm and timing of events of the life cycle, Neugarten and Neugarten (1987) stated that "more older men and women marry, divorce, remarry and divorce again up through their 70s" (p. 30).

Berger and Hecht (1989) reported that the loss of one's life companion represents a significant emotional trauma which requires considerable adjustment. Larson (1978) suggested a slight independent relationship between marital status and subjective well-being indicating that older married people have higher average well-being scores than their single cohorts.

> Studies which differentiate unmarried statuses suggest that the well-being of single people tends to be roughly equivalent to that of married persons, while widowed, divorced, and separated persons tend to have lower reported well-being (Larson, 1978, p. 114).

Educational Attainment

As pointed out by Zopf (1986),

> when today's elderly people were young, long years of schooling were a less compelling necessity than they are now and more people left school at an earlier age (p. 111).

The educational level of older Americans has been steadily increasing. According to The American Association

of Retired Persons (1989), the median level of education increased from 8.7 years to 12.1 years between 1970 and 1988. The portion of those who have completed high school increased from 28 percent to 54 percent, and about 11 percent of older Americans have four or more years of college. Waldrop and Exter (1990) reported that estimates of the 1990 census would reveal that 54.6 percent of men 65 and older are high school graduates and 13.4 percent have graduated from college. An even larger percentage, 55.2 percent, of older women have completed high school; but only 7.9 percent are college graduates (p. 30). Zopf (1986) reported that

> on the average, elderly men are more heavily represented in the lowest and the highest levels of schooling, whereas women are more heavily concentrated among high school graduates (p. 117).

Fisher (1983) suggested that factors other than educational attainment may have a greater impact on the self-concept of older adults. Larson (1978) reported a correlation between well-being and education. His review of the research literature on subjective well-being of older adults included major studies in which most of the respondents were aged 60 or older. The research "reported well-being to be most strongly related to health, followed by socioeconomic factors and degree of social interaction, for the general population of Americans over 60" (p. 109). Marital status and expectation of people's living situations were also found to be related to well-being while age, sex,

race, and employment status were not. Clark and Anderson (1967) found that their respondents who reported the highest well-being had only middle levels of education; and Ward (1977) found that education was a greater predictor of self-esteem among men than among women. However, in exploring the link between education and quality of life, Brockett (1987) reported a .40 correlation between positive self-concept and educational attainment.

Goodman (1985) tested 252 adults and found that participants with higher levels of educational attainment who were involved in college level and independent learning projects had a higher group means for self-concept than learners who were least educated and were engaged in basic and vocational courses. However, this result may have been due to the fact that, as suggested by Goodman (1985) and Cross (1981), adults with low self-confidence tend to pursue low-threat learning opportunities thereby avoiding high-threat learning activities while individuals with high self-confidence select more challenging learning projects. It may also have suggested that college level and independent learning projects carry with them a higher level of esteem than do basic and vocational courses. Moreover, Goodman suggested that adults in higher education may "exhibit higher self-confidence as learners on the whole because they have had more successful learning experiences than adults who are

participating at lower levels in the educational hierarchy" (Goodman, 1985, p. 180).

In looking at self-concept and educational attainment, it may be that one begets the other. Perhaps a healthy self-concept motivates the learner and, having learned, the self-concept is sustained.

Health

Horn and Meer (1987) reported that "because of better medical care, improved diet, and increasing interest in physical fitness, more people are reaching the ages of 65, 75 and older in excellent health" (p. 77). Dychtwald and Flower (1990, p. 82) contended that today's older Americans are healthier, more active and more vigorous than any previous generation. "The growing presence of healthy, vigorous older people has helped overcome some of the stereotypes about aging and the elderly" (Horn and Meer, 1987, p. 80). Stanford and Alexander (1982, p. 26) found the older population to be a healthy, functioning group that contributes much to society; but there are those who have varying physical and mental disabilities which display characteristics that coincide with some of the stereotypes attributed to the elderly. According to Fowles (1983) "about two-thirds of persons 65 or older view their health as good or excellent compared to others of their own age" (p. 10). Neugarten and Neugarten (1986, p. 35) reported that half of

all persons 75 to 84 report no health problems which place a limitation on their everyday activity.

The 1989 American Association of Retired Persons' profile on the older population indicated that in 1987, 31 percent of older adults assessed their health as fair or poor. As reported by Soldo and Agree (1988), "age is not itself a disease, but the risk of chronic, degenerative diseases increases markedly with age" (p. 19). However, chronic illnesses do not necessarily pose a threat to the quality of life nor need they erode personal independence. It appears that although four out of five elderly report the existence of one or more chronic health conditions, they are able to function adequately (Fowles, 1983).

Flieger (1988, p. 23) reported that of those aged 65 or older, 36 percent of men and 55 percent of women suffer from arthritis. Thirty-five percent of men and 46 percent of women have high blood pressure; 33 percent of men and 29 percent of women have some form of heart disease; 36 percent of the men and 25 percent of the women have some hearing loss; and 13 percent of the men and 25 percent of the women have cataracts and/or glaucoma.

An analysis of a 1978 Health in Detroit study reveals that women report poorer general health and more chronic conditions than men (Verbrugge, 1988, p. 36). Women experience more long-term limitations in their activities due to health problems and use more sick days due to diseases and

other conditions. The Detroit study "showed that women feel psychologically more vulnerable to illness than men. They feel less in control of their lives, and they have lower self-esteem" (Verbrugge, 1988, p. 36). Verbrugge suggested that the social and psychological differences between men and women are largely responsible for the difference in their health. Zopf (1986) suggested that men tend to suffer more severe problems of adjusting to the loss of a spouse than do women. Men also seem to find it more difficult to adjust to the solitude, which tends to produce a lower level of life satisfaction and higher rates of mental illness and suicide (p. 92-93).

Owen (1985) found that while only 15 percent of the senior population not in institutions can claim to be free of chronic diseases, most elderly indicate that they are in good health and that these chronic conditions do not limit their activity. Siegel and Taeuber (1986) suggested that older adults are more likely to have a chronic condition that limits their level of activity and that they are twice as likely to experience restricted activity because of illness as the general population (p. 96). While declining health can be responsible for restricting the activities of the elderly, a 1981 survey found that half of all people in the 75 to 84 age group reported no such health limitations and that even in the 85 and older age group more than one third reported no limitations due to health. Only one in three of

the older group indicated that they were unable to carry out everyday activities because of health problems (Neugarten and Neugarten, 1987, p. 30).

Kline et al. (1990) found a strong relationship between physical illness and depression; and Larson (1978) stated that "among all the elements of an older person's life situation, health is the most strongly related to subjective well-being" (p. 112). Larson reported that reviewed studies employing self-assessments of health in which respondents were asked to judge their health as good or poor have yielded correlation coefficients ranging from r = .2 to .5. Studies which required respondents to enumerate their health conditions as a measure of their health reported similar degrees of association (p. 112).

In a study of 100 males on the effects of illness and age upon some aspects of personality, Schwartz and Kleemeier (1965) hypothesized that the effect of aging and illness would be cumulative and interacting. Using the Twenty Statements Problem in which participants were asked to write 20 short, self-descriptive statements, comparisons were made of health status and age by rating the concept "myself." When health status was controlled, there was no significant difference in self-concept. Results of the study indicated that while the groups differed in terms of their self-concept, the old group regarded themselves no more negatively than did the young group, but the ill group had a

significantly lower self-concept than the well group. Therefore, it appeared that illness is more likely to have an effect on the self-concepts of the aged than on the young. Further, Schwartz and Kleemeier reported that "health status rather than age exerts the major influence on self-concept" (p. 88).

The hypothesis that self-concept should be influenced more by interpersonal concerns in the old and ill than in the young and well was not confirmed. Schwartz and Kleemeier did find, however, that the attitude of the old and the ill toward themselves was more negative than that of the young and well.

Butler (1981) stressed that the development of knowledge to treat and prevent diseases among the elderly is essential for enhancement of their quality of life. Although there is much to be known about diseases and conditions which interfere with healthy aging, attention must also be given to psychological factors.

Income

The economic status of America's elderly is steadily improving. The median income of households headed by people aged 65 and older grew by 14% during the 1980s (Crispell, Exter and Waldrop, 1990, p. R12). The Billings (Montana) Gazette (May 12, 1991) reported that those aged 50 and older had more than half of all the discretionary income in the

United States (p. 2-E). Horn and Meer (1987) said that "some seniors are prospering and a good portion of the United States' retired older people form a new leisure class, one with money to spend and the time to enjoy it" (p. 77). Factors contributing to the improved economic status of the elderly include increases in benefits and the cost-of-living escalation clause for Social Security, increasing coverage of workers under public and private pension plans, and implementation of income support programs such as Supplemental Security Income (SSI), Medicare, Medicaid, and property tax relief. An increase in the numbers of pre-retirement age women in the work force has also resulted in higher post-retirement income for older women. The American Association for Retired Persons (1989) reported that the median income of older persons in 1988 was $12,471 for males and $7,103 for females. Families headed by persons 65 and older reported a median income of $21,785, up from $19,932 in 1986.

Over the last three decades, the number of older men and women who live below the poverty level has dropped steadily (Horn and Meer, 1987, p. 77). The American Association of Retired Persons (1989) reported that in 1988, 3.5 million persons 65 and older had annual incomes below the federal poverty level ($7,158 for older couple household; $5,674 for an older individual living alone). Older women, minorities, those who live alone and the oldest of the old have the highest poverty rates largely due to having worked less in

the past and having worked in lower paying jobs (Fowles, 1983, p. 1).

Larson (1978) reported that "numerous studies have established that older persons of lower socioeconomic status tend to have lower subjective well-being" (p. 113). Although Larson (1975) and Palmore and Luikart (1972) found that the association of income to well-being is stronger at lower levels of income, there appears to be a level of income above which additions in income are less related to well-being (p. 113).

Employment Status

In 1900, two out of three men over the age of 65 were employed; in 1980, only 20 percent were working (Sherman, 1987, p. 23). The American Association of Retired Persons (1989) reported that in 1988, 3.3 million (11 percent) of older Americans were in the work force. Approximately half (46 percent of men, 60 percent of women) were employed part time and 25 percent were self-employed.

While there has been a shift away from compulsory retirement in the United States, the incentives for voluntary and early retirement have been expanded. As Palmer and Gould (1986, p. 383) stressed, "rising pension and asset income and rapidly expanding Social Security benefits made retirement a more economically viable alternative to continued employment for the aged." The American Association of Retired Persons

(1989) reported an accelerating trend toward early retirement, with employees 55 and over leaving their jobs in ever greater numbers. Men in particular are choosing to retire before age 65. According to Soldo and Agree (1988, p. 25) the General Accounting Office reported that nearly two-thirds of all persons receiving private retirement benefits in 1985 had retired before 1965. Among men 65 and older, only 16.3 percent were still in the labor force in 1988 compared with 45.8 percent in 1950. The Billings (Montana) Gazette (June 3, 1990, p. 2-E) reported that the median retirement age is down from 65 in 1970 to 62 and is projected to drop another year in 1990.

Schiamberg, Chin and Spell (1985) cautioned that for many persons, retirement significantly alters their daily routines and their overall life process (p. 5). Deciding whether to retire and when to retire is a major decision for most people and one that can cause much consternation. Reasons for retirement differ. According to Zopf (1986) approximately 40 percent retire involuntarily, 15 percent retire because of some disability, and 45 percent leave employment voluntarily (p. 172). Retirement traditionally has been perceived as a "distinct period marked by the right to lead a life of leisure, declining physical and intellectual vigor, social disengagement and, often, isolation and desolation" (Neugarten and Neugarten, 1987, p. 30). Morrison (1986) contended that retirement "poses

serious problems for those older persons whose lives and identities have been closely tied to work, family, and community roles that are diminished or unavailable during retirement (p. 343). As Imel (1983) suggested, the loss of the work role, often a major role in one's life, may create a need for developing new avenues of self-expression and self-esteem. "The importance of one's job and income to self-concept and feelings of worth influence the ease with which the elderly navigate the hurdle of retirement" (Berger and Hecht, 1989, p. 126).

Long's study (1989) in which he interviewed men prior to retirement found that while some older men expected to suffer a loss of "the stimulation, satisfaction, purpose and self-esteem provided by employment" (p. 61), others expected their well-being to be enhanced through the removal of negative factors associated with work. Planning for retirement includes developing interests outside the workplace. Long (1989) warned that if leisure lives are not well developed before retirement, only a few will fit easily into the retirement role. "A long-standing diversity of interests heightens the chances that satisfying roles will continue into retirement" (Long, 1989, p. 56). Both Imel (1983) and Bailey (1976) pointed out the need for retirement preparation programs for older adults in which they could be apprised of alternatives to the work role, such as volunteer work, political activity, family activities, participation at

senior centers, and educational pursuits. Bailey (1976) recommended that ". . . a variety of educational opportunities and materials could be aimed at the predictable needs of the aging just before and after retirement begins" (p. 39). Branscum (1982) suggested that even those who have not worked at paying jobs experience the effects of retirement from activities they actively pursued at a younger age. For example, the older couple who gives up a large house and yard for a small condominium experiences the retirement from yardwork; and housework no longer requires a substantial amount of time. The effects of aging or illness may prohibit older adults from continuing participation in sports, hobbies, or crafts. Thus, regardless of the situation, most older adults must make some adjustments to less physical activity in their lives.

A Harris poll in 1981 indicated that half of employed persons under the age of 65 were not looking forward to retirement and 75 percent hoped to continue working part-time but not necessarily at their same job. Oftentimes, even those over 65 who prepare and plan for retirement find they do not enjoy the abundance of leisure time and wish to return to work. Dychtwald and Flower (1990) reported that in the near future more people will continue working into their 70s and 80s and that many will "retire" several times. Neugarten and Neugarten (1987) stated that older persons, especially women, exit and reenter school, enter and reenter the labor

force, and undertake new careers up through their 70s (p. 30). Helen Dennis, project director and lecturer at the University of Southern California's Anders Gerontology Center, (the Billings (Montana) Gazette, June 3, 1990, p. 2-E) suggested that opportunities open to the retiree include travel, enrichment programs, physical fitness programs, returning to school and volunteering. Dennis stated that the biggest beneficiaries of early retirement have been volunteer agencies. Among both the employed and unemployed, Taylor (1990, p. 80) reported that of those age 55-64, 47.1 percent volunteer an average of 4.7 hours per week. Forty percent of persons age 65-74 volunteer an average of 6 hours per week; 28.6 percent of persons 75 and older volunteer 4.4 hours per week. Dennis said that volunteers are looking for something to fill and give meaning to their lives.

Too often voluntary or involuntary retirement leaves the older adult faced with a severe emptiness in their life and without adequate financial resources to pursue such retirement activities as travel. Morrison (1986), however, suggested that retirement accompanied by financial sufficiency can provide "a period of time in which regular paid employment is not necessary and personal desires can be maximized" (p. 343). Retirees often feel for the first time in their lives a sense of uselessness. They view retirement as "a penalty that deprives them of a continuing productive

role in society" (Morrison, p. 343). The Billings (Montana) Gazette (June 3, 1990) stated that "beyond the obvious financial considerations, retirement raises issues about feelings of self-worth, purpose in life, 24-hour togetherness, role reversals, attitudes toward travel and the use of shared resources" (p. 2-E).

Those who have not adequately planned for retirement find themselves with an abundance of time and are not prepared for productive use of that time. Adult education can play a major role in offering older adults an opportunity to engage in learning activities which are relatively low in cost and high in returns in terms of their self-concept.

> The major adjustment of the lifestyle of elders in many cases causes withdrawal or the 'flight response' and non-involvement becomes the pattern. A 'job' is not a panacea for all the complex adjustment problems in elders. Volunteer work is not for everyone and some people aren't inclined toward social activity. The key word is not working, volunteering, or socializing, but rather INVOLVEMENT at some level and in some way. (Branscum, 1982, p. 4).

Branscum (1983) described a program which was designed "to facilitate the self-revitalization of senior citizens at the community level utilizing community resources" (Document Resume). A Work Again Project which served 5,955 adults from five Southeast Missouri communities was implemented to provide training and job opportunities for older adults. Participants ranged in age from 55-93 years. This project provided opportunities in employment, volunteer service,

education, and training classes, social and recreational activities, and arts and crafts. One of the purposes of the project was to measure the influence of working situations on elders' self-concepts.

Applicants to the Work Again program were given the Tennessee Self-Concept Scale at the time of their initial interview or shortly thereafter and again after they had been working about two months. It appeared that "when senior citizens were given opportunities to enhance themselves and to renew their outlook on participation a positive, self revitalization occurred" (Branscum, 1983, p. 61).

Social Activity

As cited by Tucker and Umbarger (1979), Kenneth Woodward contended that "the main goals of healthy older people are to stay active and to feel good about themselves" (p. 60). Among their "Thoughts for a Healthy Self-Concept," Stephens and Jacobus (1985, p. 49) said that it is important that we remain as active and independent as reasonably possible as we advance in years. "By adopting new activities (including exercise) to replace the role of worker and by participating in social-recreational groups, the elderly can expand their horizons" (Berger and Hecht, 1989, p. 126). A National Institute on Aging report released in 1986 revealed that persons 65 and older are leading fulfilling lives and that most socialize in a variety of ways including professional,

social, church-related or recreational groups (Horn and Meer, 1987, p. 82). Community organizations, including senior citizen centers, provide greatly needed opportunities to establish ties with other members of one's age group.

Numerous studies have found a direct relationship between social activity and positive self-concept. Larson (1978) reported that studies across diverse populations of the elderly found associations of well-being with general measures of activity. Referring to the structure and functional properties of the self-concept and its relation to the social environment, Nurius (1986) stated that "historically, there has been general agreement about the important and central role of the self-concept in the individual's social functioning and sense of well-being" (p. 429). In her study on age self-concept, Furstenberg (1989) found that involvement in activities and socializing is correlated with a younger age self-concept. Long (1989) found that leisure-time commitments such as volunteer work provides not only positive social contacts with others in all age groups but also a sense of purpose. In his study of retired men, Long reported a general relationship between activity and personal fulfillment. Long said that " . . . those who did more activity-based things tended to fare better when assessing their satisfaction with life" (p. 70). Participants in the Long study emphasized the importance of keeping mentally and physically active, supported by

recreational activities. A study at Rutgers University revealed that "life satisfaction depends mainly on how much time we spend doing things we find meaningful" (Horn and Meer, 1987, p. 83).

As Coates (1984) stated,

> Self-acceptance, a sense of personal worth and an enhancement of self-esteem all come about when a person is at ease with his- or herself. Self awareness, essential to personal growth, is developed in the context of continuing experience. Meaningful activity is the backdrop for an evolving self-concept (p. 35).

Berger and Hecht (1989) reported a negative correlation with social withdrawal or disengagement from the community and life satisfaction in all elderly age groups (p. 126). While certain age-related impairments can and do interfere with the physical and social activity of older persons, the stereotyped labels so often attributed to the elderly may cause the elderly to underestimate their abilities and capacities, which discourages participation. However, as pointed out by Horn and Meer (1987) the problems associated with old age may not be the result of age but of disease, abuse and disuse--factors which are often under the control of the individual. Despite physical and social barriers faced by some of the older population, Horn and Meer (1987) reported that more and more older people are "healthy, vigorous men and women who lead enjoyable, active lives" (p. 81). Atchley (1989) concluded that

> normally aging people are independent adults with persistent self-concepts and identities. They can successfully meet their needs for income, housing, health care, nutrition, clothing, transportation, and recreation. They lead active, satisfying, and purposeful lives that involve adequate networks of long-standing social relationships (p. 184).

Residence

According to Horn and Meer (1987, p. 84), most persons 65 and older live in their own homes. Although the possibility of living in a nursing home does increase with age, only about 5 percent of the elderly reside in nursing homes (Kline et al., 1990, p. 309). Most older men live with their wives; most older women are widows and live alone. Of those over 75 years of age, two-thirds of the men live with their spouse while less than one-fifth of the women do (Horn and Meer, 1987, p. 84). The American Association of Retired Persons (1989) stated that 67 percent of older noninstitutionalized persons lived in a family setting in 1988 and about 30 percent lived alone. The portion of older persons living alone increased 76 percent between 1970 and 1988. Forty-one percent of older women live alone while only 16 percent of older men live by themselves. Surprisingly, Siegel and Taeuber (1986) reported that older persons living alone "are not necessarily lonely and may have more outside contacts than those living with others" (p. 100).

Aging and illness often necessitate the moving of the elderly to live with family or to be institutionalized. The

giving up of one's residence and the consequential loss of control over one's destiny is a major adjustment for many older Americans. Schiamberg, Chin and Spell (1985) suggested that "circumstances directly affect self-concept and locus of control" (p. 3). Reid, Haas and Hawkings (1977) conducted two studies of institutionalized elderly persons in which they examined the effects of locus of control on the psychological adjustment to old age. The researchers hypothesized that those residents who have "a more internal expectancy of control over desired outcomes have a more positive self-concept" (p. 442). A self-concept scale of ten 5-point items adapted from the Schwartz and Tangri scale followed by an internal-external locus of control measurement was administered to each of the participants. Then nurses were asked to rate each resident participant in terms of happiness in order to compare the nurses perception to the results of the two instruments administered. Interviews were conducted with the sample members to obtain demographic data and to determine scores on the self-concept and locus of control instruments. Results of the study revealed that the internal locus of control score correlated at .46 with a positive self-concept score indicating that when the institutionalized elderly believe they have some control in their life, their self-concept is more positive. Reid, Haas and Hawkings (1977) found a prominent difference ($p < .002$)

among males and females in the relationship between locus of control over desired outcomes and self-concept (p. 446).

Schiamberg, Chin and Spell (1985) in their review of literature suggested that environmental and situational circumstances directly affect self-concept and locus of control. Stephens and Jacobus (1985) pointed out the importance of choice in dealing with the changes of aging. We have the power and control over our reactions to the aging process and a "solid self-concept" can help to positively use that choice (p. 48).

Langer and Rodin (1976) reviewed numerous studies which have been done on locus of control and the aging. Langer's own study was conducted in a Connecticut nursing home with 91 ambulatory adults who ranged in age from 65 to 90 years. One group was given a positive talk by the home administrator and residents in that group were advised of decisions of which they would be a part and were allowed to choose a plant which they were to care for themselves. The other group was told of their options as residents but were not to be included in any decision making. Further, this group was handed a plant and told that their nurse would water and care for it for them. Results of this study showed that 71 percent of the people in the latter group became more debilitated over a short period of time while 93 percent of those in the first group showed improvement, becoming more active and feeling happier. It seems, therefore, that involvement in one's

activities and having even the slightest locus of control over one's life creates a positive effect on well-being.

Mobility

Berger and Hecht (1989) reported that "dependence (physical, financial, emotional, and total) is a major fear in old age" (p. 127). Lack of transportation not only tends to isolate the elderly, but it also represents a loss of independence. Fortunately, as reported by Horn and Meer (1987, p. 82), of those who have access to public transportation, only about 10 percent of the oldest of the old live alone with a disability that prevents them from using it.

A review of the literature revealed very little research related to mobility of the elderly and self-concept. However, Cutler (1972) found a significant relationship between well-being and the availability of transportation. Results of a study which continued for 30 months revealed a greater frequency of decline in well-being among persons without transportation than those with transportation.

Concluding an extensive review of the research literature on subjective well-being of older adults including major studies in which most of the respondents were aged 60 or older, Larson (1978) concluded that health, income, level of education, occupational status, marital status, availability of transportation, housing and nonamorous forms

of social interaction appear to be related to subjective well-being (p. 116).

CHAPTER 3

METHOD

Introduction

This chapter addresses the method of the research and includes population and sample, instruments, procedures, design and data analysis, and statistical tests of the data.

The purpose of this study was to determine if continued active participation in learning is related to a positive self-concept in older adults. A secondary purpose was to examine whether age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence are related to self-concept. A third purpose of the study was to determine if older adults who participate in activities at a senior citizens center one or more times a week have a more positive self-concept than those who do not.

This study was nonexperimental survey research in which there was no manipulation of independent variables. Instead, volunteer respondents were asked to complete two forced-response instruments.

Population and Sample

The population for this study included older adults who participate in functions at senior citizen centers and those who live in retirement homes in selected cities in Montana. For the purpose of this study, older adults who were at least 60 years of age were surveyed. Fowles (1983) stated that "'older persons' are defined variously from age 55, age 60, age 65, or some other age (p. 6)." Studies by Mizer (1975) and Neugarten, Havighurst and Tobin (1961) included adults 50 years of age and older; Rowland (1986) and Fisher (1979) defined older adults as those 55 or older; and research by Harless and McConnell (1982), Ward (1977), and Larson (1978) included persons 60 or older.

Age 65 marks the beginning of old age in the eyes of the Social Security Administration and other governmental agencies and has traditionally been the age of either mandatory or voluntary retirement from the work place. More recently, however, agencies such as the American Association of Retired Persons recognize anyone who is 50 years of age as an older person and senior citizen discounts are frequently offered to persons in their fifties and early sixties.

Sample Type

The subjects for this study were volunteer older adults who attend functions at a senior citizens center or residents of a retirement home and who reside in Montana communities

which were selected by the investigator in an effort to represent a geographical cross section of rural and urban residents. Investigation sites were contacted and written permission was obtained before the survey was conducted.

Older residents of Montana are clearly representative of the overall older population of the north and northwest region as well as the entire United States. The United States Bureau of the Census (American Association of Retired Persons, 1987) indicated that Montana's percentage of residents 65 and older represents 12.1 percent of the state's population. The percentage of the total United States population 65 and older is also 12.1 percent.

Longevity trends (Statistical Bulletin, 1987) revealed that North Dakota, Utah, Idaho, and Minnesota are four of the five states in which men aged 65 may expect to live at least 15 more years (p. 12). The fifth state with high longevity for men is Florida. Women aged 65 residing in Hawaii, South Dakota, Minnesota, and North Dakota have a "better than 50-50 chance of celebrating an 85th birthday" (p. 15). The Statistical Bulletin (1987) indicated that life expectancy for Montanans aged 65 was 16.7 years, .1 percent higher than the national average. Persons 85 years of age in Montana could expect to live another 6.1 years, compared with the national average of 6.0 years. Both the population and sample in this study, therefore, were representative of the overall population and the results of the study have

implications for older citizens of Montana, the north and northwest regions, and the overall older population of the country. The sample included the following persons:

Participants at senior citizens centers in the following Montana communities:

Bozeman	Helena
Billings (2 sites)	Great Falls
Glendive	Butte
Plentywood	Missoula
Lewistown	Kalispell
Havre	

Residents of the following retirement residences in Montana:

Hillcrest Retirement Home in Bozeman
Cambridge Court Retirement Community in Great Falls
Montana West Living Center in Great Falls
Westpark Village in Billings
Pioneer Manor in Plentywood

Sample Size

A sample of at least 330 was needed for the following reasons:

1. The sample was heterogeneous in terms of age and geographical location so a fairly large sample was required to keep sampling errors to a minimum.

2. Borg and Gall (1983) cautioned that the measure of a variable such as self-concept is usually not as reliable as more concrete variables such as academic achievement. Therefore, there is a larger error of measurement. To improve the chance of detecting small differences or slight

relationships, sample size must be increased (Borg and Gall, 1983).

3. Kerlinger and Pedhazur (1973) recommended a sample of 200 or more when using multiple linear regression. "The larger the sample size the more precise the statistical estimate" (p. 447). Since a stepwise multiple linear regression statistical test was employed to measure predictability of self-concept, Kerlinger's ratio of 30:1 was used. This formula necessitated a sample size of at least 30 individuals for each of the 11 independent variables in the study, a total of 330.

It was anticipated by the researcher that not all respondents would complete the entire Tennessee Self-Concept Scale instrument. Further, even though precautions were taken to insure that sample members understood the directions for completing the instruments, it was expected that some instruments would not be usable due to the researcher's inability to score improperly marked or uncompleted forms. It was Branscum's (1982) experience that several members of the sample of older adults refused to take the Tennessee Self-Concept Scale. Borg and Gall (1983) warned that representativeness of the sample can be jeopardized by refusal to complete the instruments. Since the Tennessee Self-Concept Scale was used to measure self-concept of the sample in this study and eleven independent variables were used, a sample of

at least 330 was needed to acquire sufficient usable instruments to maintain the 30:1 ratio.

Instruments

This study was conducted by means of survey research. Two instruments were used for data collection. Both instruments contained forced response items which required a definite response to choices offered to the respondents.

The Counseling Form of the Tennessee Self-Concept Scale, a 100-item, 5-point Likert scale instrument, was administered to each member of the sample by either the investigator or an assistant who had been trained by the investigator. Training consisted of both oral instructions and demonstration of procedures by the researcher. Further, the assistant was instructed to not offer any assistance or direction regarding actual responses to the items. To facilitate greater ease in reading the instrument and in understanding the response procedures, license was acquired from the publisher of the Tennessee Self-Concept Scale to modify Form C by typing the form in bold, 10-pitch type in a format similar to the computer-graded Form W-182N which lists the 100 items in numerical order with a corresponding 5-point Likert scale (see Appendix A). Because of the cost factor of licensing, only 40 copies of the modified instrument were prepared and then laminated so that they could be wiped clean after being scored and used again at the next survey site.

Additionally, each participant in the study was asked to complete a brief instrument designed by the researcher which contained 12 questions regarding the independent variables age, gender, marital status, residence, educational attainment, health, income, employment status, social activity, mobility, and participation in learning. Each question required the participant to select the most appropriate response (see Appendix A). The variables appeared on the questionnaire in the same order that they appear above. The purpose of this instrument was merely to facilitate grouping for analyzing the data acquired from the self-concept scale.

Both instruments necessitated only the circling of the most appropriate response to each item or as in the case of the portion dealing with learning, a check mark beside appropriate responses. Specific instructions appeared at the top of each instrument.

Numerous researchers including MacKeen and Herman (1974), Chavis (1980), Gardner and Oei (1981), Erdwins, Mellinger and Tyer (1981), Harless and McConnell (1982), and Branscum (1982, 1983) have used the Tennessee Self-Concept Scale, which is designed to be used for persons aged 12 and over. It was determined, therefore, that the scale would be suitable for the measuring of the self-concept of older adults. Evidence of reliability may be found in a number of studies. A study by Roffe (1981) revealed that most variables in the scale had reliability coefficients within a

range of .65 to .90. Other studies (Congdon, 1958; Nunnelly, 1968; Stanwyck and Garrison, 1982; and Tzeng et al., 1985) all cited by Roid and Fitts (1988, p. 65), have revealed reliability coefficients ranging from .80 to .91.

Marsh and Richards (1988) evaluated the validity of responses to the Tennessee Self-Concept Scale in two sets of analyses and reported "strong support for the convergent and discriminate validity of responses to the TSCS" and strong "support for the construct validity of the TSCS" (p. 619). According to factor analyses conducted by Roffe (1981) showing the commonalities and loadings for self-concept scales, "three factors emerged with eigenvalues greater than one. Combined, these three factors account for 74.7% of total variance (p. 460)." As a result of factor analyses, Marsh and Richards (1988) cited some criticism toward the construct validity of the Tennessee Self-Concept Scale. Yet, Marsh and Richards conceded that "the TSCS continues to be one of the most popular personality instruments and the most widely used self-concept instrument" (p. 612). Marsh and Richards further indicated that the TSCS is the first among self-concept instruments in total number of references cited in the 1985 edition of Mental Measurements Yearbook. Marsh and Richards also reported that the TSCS was "one of the few tests to increase its rank order by 30 points or more between the last 2 publications of Buros's Personality Tests and Reviews" (p. 613). According to Borg and Gall (1983), the

clinical and research form of the TSCS, which yields 29 profiled scores in areas of self-criticism, physical, personal, and social self, is one of the most widely used measures in the area of self-concept. The clinical and research form and the counseling form of the TSCS are identical in terms of the number of items and the content of each item. The only difference is in the number of scores yielded by each form. Although Form C yields 14 different scores, for the purpose of this study, only the Total Score, which indicates the respondents' overall self-concept, was used. "The Total Score is the single most important score on the TSCS. It reflects the overall level of self-esteem" (Roid and Fitts, 1988, p. 3).

Responses from each participant were transferred by hand by the researcher and the assistant to computer score sheets which were then scanned and read to determine the Total Score. The normal mean Total Score range for self-concept lies between 317 and 405 (Roid and Fitts, p. 17); therefore, a Total Score of 317 or above was considered to represent a positive self-concept. Total Scores below 317 were interpreted as something less than a positive self-concept.

Before using the researcher-prepared questionnaire, a pilot study was conducted to "identify misunderstanding, ambiguities, and useless or inadequate items" (Wiersma, 1986, p. 194). According to Long, Convey and Chwalek (1986), "the sample used for the pilot study must be representative of the

sample intended for the main study, but no individual who participates in the pilot study should be included in the sample for the main study" (p. 97). Therefore, the pilot consisted of a sample of volunteer older adults attending a senior citizen center located in Belgrade, Montana, a community which was not included in the study. The sample size for the pilot study was proportionate to the expected sample size of any of the participating groups in the main study, or approximately 20 members. Items requiring questions or causing confusion for the respondents in the pilot were reviewed by the researcher and some items were rewritten before the instrument was used in the study.

Both instruments were administered to groups rather than individually. Borg and Gall (1989, p. 269) stated that "individually administered measures should be selected only when they make an essential contribution to the research project" and when the purpose of the study is to look at process rather than product. All completed instruments were computer scored to assure reliable, consistent scores.

Procedures

Directors or officers of each of the residences or organizations to be sampled were contacted by the researcher by telephone to enlist their cooperation and permission to conduct the study among their particular group. Directors or officers of each center or residence were asked to submit

written confirmation of their permission by responding on a stamped, self-addressed card provided by the researcher.

The researcher and the assistant visited the preselected, approved survey sites and personally collected the data from the volunteer respondents during the months of June, July and August, 1990. As noted by Borg and Gall (1983), the environment surrounding the respondents is an important concern. Therefore, every effort was made to assure that the instruments were administered in a comfortable physical setting and attention was given to the mental and physical state of the participants. When possible, testing was done mid-morning in an effort to eliminate the effects of hunger or fatigue on the participants.

Each participant was furnished with a copy of each instrument and a washable marking pen with which to complete the instruments. Those who did not have access to a sturdy writing surface were provided with clipboards on which to write. Each participant was given specific instructions for completion of the instruments, and an oral sample item was used to further explain the procedure for responding to the Tennessee Self-Concept Scale (TSCS) items.

Respondents were requested to offer their assistance by participating in a study which could provide useful information concerning the well-being of senior citizens. Because of Branscum's (1982) experience with older adults refusing to complete the TSCS, the importance of the study

and the implications for providing helpful information about the well-being of their peer age group was stressed. The importance of the participants' opinions and the need for their assistance was also stressed. Participants were advised that upon completion of the instrument, they would receive a thank you card which contained a number that made them eligible for a door prize drawing after all respondents had finished the survey. Drawings were made for both male and female participants.

Subjects were assured of complete anonymity, therefore, neither names nor addresses were requested. Under no circumstances were any individual scores revealed. Data used in the study represent only group scores. The assistant was trained by the investigator and then was observed and evaluated by the researcher as the trainee demonstrated the testing procedures. The individual assisting in the gathering of data was asked to be alert for any unusual situations which might arise during completion of the instruments and to document such situations in case factors or biases which could reduce the value of the data had occurred (Borg and Gall, 1983).

License for adaptation of the Tennessee Self-Concept Scale by Roid and Fitts (1988) was obtained from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025 (see Appendix A).

Design and Data Analysis

The purpose of this study was to determine the correlation between self-concept in older adults and selected attribute variables:

Dependent Variable

Self-concept as measured by the Total Score on the Tennessee Self Concept Scale was the dependent variable.

Independent Variables

The independent variables included the following:

Participation in Learning
Age
Gender
Marital Status
Educational Attainment
Health
Income
Employment Status
Social Activity
Mobility
Residence

Research Questions

The following questions were tested:

Are active participation in learning activities and selected attribute variables, taken together and taken singly, significantly related to self-concept? The selected attribute variables were: age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence.

Is there a difference in self-concept for older adults in this study who attend senior citizens centers and those older adults who do not?

Hypotheses

Hypothesis 1: There is no relationship between the dependent variable, self-concept, and the independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence taken together.

Hypothesis 2: The independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence, taken singly, do not account for a significant portion of the variability seen in the dependent variable self-concept.

Model:

$y^1 = b_1x_1 + b_2x_2 + b_nx_n + a$

y^1 = Self-concept Total Score, as measured on the TSCS

x_1 = Participation in Learning

x_2 = Age

x_3 = Gender

x_4 = Marital Status

x_5 = Educational Attainment

x_6 = Health

x_7 = Income

x_8 = Employment Status

x_9 = Social Activity

x_{10} = Mobility

x_{11} = Residence

Hypothesis 3: There is no difference in the self-concept of older adults who participate in senior citizens center activities and those older adults who do not.

Statistical Tests of the Data

A level of significance of .05, which is commonly used in educational research (Wiersma, 1986, p. 338; Borg and Gall, 1989, p. 351; Best and Kahn, 1989, p. 273), was used for each statistical test implemented to reduce the chance of a Type II error. "The researcher sets the level of significance based upon the relative seriousness of making a Type I or a Type II error" (Best and Kahn, 1989, p. 275). A Type II error results from not rejecting a null hypothesis when it is really false. The possible consequence of such an error in this study would be that older adults would be led to believe that the variables participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence are significantly related to a positive self-concept when indeed they are not. That type of misinformation would

merely add to the overwhelming myths and stereotypes already associated with aging.

A stepwise multiple linear regression test was employed to analyze the contribution of the independent variables to the Tennessee Self-Concept Scale Total Score. Individual scores were used in a forward selection of the stepwise regression to help explain the results of the second hypothesis. A one-way analysis of variance and a Newman-Keuls test were implemented to determine differences in mean scores within the grouping of each independent variable. A one-way analysis of variance was used to determine if there were any significant differences in the self-concept of those who participate in senior centers and those who do not.

CHAPTER 4

ANALYSIS OF DATA

Introduction

The principal purpose of the study was to determine if continued active participation in learning was related to a positive self-concept in older adults. A secondary purpose of the study was to determine whether age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence were significantly related to a positive self-concept. The study was also designed to determine whether there was a difference in self-concept of older adults who participate in activities at a senior citizens center and those who do not.

Analysis of data begins with a comprehensive description of the sample of the population. Next, the hypotheses are presented accompanied by the results and analysis of the stepwise multiple regression and one-way analyses of variance used in the study.

Description of the Sample

The sample for this study was comprised of volunteer older adults who either visited a senior citizens center or

were residents of a retirement home in preselected Montana communities. The 17 sites which were selected by the researcher were chosen on the basis of size of the community and geographical location. An attempt was made to sample older adults throughout the state in order to have a geographically representative sample of the population (see Table 1 below). Survey sites were initially contacted by telephone to gain permission to conduct the study, followed by written confirmation.

Table 1. Survey sites.

Survey Site	City	Frequency	Percent
Senior Center	Butte	14	3.9
Senior Center	Missoula	24	6.7
Senior Center	Kalispell	27	7.5
Senior Center (23rd St.)	Billings	33	9.2
Cambridge Court	Great Falls	8	2.2
Senior Center	Great Falls	40	11.2
Montana West	Great Falls	8	2.2
Senior Center	Lewistown	29	8.1
Senior Center	Helena	46	12.8
West Park	Billings	12	3.4
Hillcrest	Bozeman	8	2.2
Senior Center (8th St.)	Billings	26	7.3
Senior Center	Plentywood	39	10.9
Pioneer Manor	Plentywood	8	2.2
Senior Center	Glendive	6	1.7
Senior Center	Havre	19	5.3
Senior Center	Bozeman	11	3.1
Total		358	100.0

A minimum of 330 participants were needed for the study. Of the 398 persons who volunteered to participate in the

study, only 20 participants either declined to complete the instrument or did not respond to all items. Interestingly, it seemed that once the respondents agreed to participate in the study, they felt committed to complete the rather lengthy instrument despite comments by some that they wished they had not agreed to participate. This study was designed to include older adults 60 years of age and older. Because 20 of the respondents who completed the survey instrument were under 60 years of age, their data was not used. The remaining 358 instruments provided the following information.

A composite profile of this data indicated that the typical respondent in this study was an unmarried, healthy female high school graduate (or GED) between the ages of 70 and 74. The typical respondent was not employed, neither full time nor part time, but did volunteer work and had less than $10,000 annual income. Living alone and having no difficulty obtaining transportation when needed, the typical respondent did not socialize or visit with persons outside the home frequently but did, as a member, participate in senior citizens center activities one or more times a week. The most frequent mode of learning for the typical respondent was through individual reading or research. A detailed analysis of these data follows.

Age

Thirty-eight (10.6 percent) of the respondents were aged 60-64; 67 (18.7 percent) were 65-69; 87 (24.3 percent) were 70-74; 71 (19.8 percent) were 75-79; 56 (15.6 percent) were between 80 and 84; and 39 (10.9 percent) were over 84 years old (see Table 2).

Table 2. Age of Respondents.

Age in Years	Frequency	Percent
60-64	38	10.6
65-69	67	18.7
70-74	87	24.3
75-79	71	19.8
80-84	56	15.6
Over 84	39	10.9
Total	358	100.0

Gender

There were 256 female participants in the study which represents 71.5 percent of the sample. The 102 males participating in the study represent the remaining 28.5 percent (see Table 3).

Table 3. Gender.

Gender	Frequency	Percent
Female	256	71.5
Male	102	28.5
Total	358	100.0

Marital Status

Respondents who were currently married numbered 134 (37.4 percent). Two hundred twenty-four (62.6 percent) indicated that they were not currently married (see Table 4).

Table 4. Marital status.

Marital Status	Frequency	Percent
Married	134	37.4
Unmarried	224	62.6
Total	358	100.0

Residence

Two-hundred nine (58.4 percent) of those participating in the study indicated that they lived alone; 149 (41.6 percent) did not (see Table 5).

Table 5. Residence.

Living Arrangement	Frequency	Percent
Live alone	209	58.4
Do not live alone	149	41.6
Total	358	100.0

Educational Attainment

Of the 358 participants, 113 (31.6 percent) had less than a high school education. Those who had completed high

school or had acquired a GED numbered 129 (36.0 percent). Sixty-eight (19.0 percent) had attended college, but only 28 (7.8 percent) were college graduates. Twenty (5.6 percent) of the participants had attended or completed graduate school (see Table 6).

Table 6. Educational attainment.

Education Attained	Frequency	Percent
Not high school graduate	113	31.6
High school graduate or GED	129	36.0
Attended college	68	19.0
College graduate	28	7.8
Attended or completed graduate school	20	5.6
Total	358	100.0

Health

When asked if their health status interfered with their overall activity, 111 (31.0 percent) indicated that it did; 247 (69.0 percent) responded that it did not (see Table 7).

Table 7. Health status of respondents.

Health Interference with Activity	Frequency	Percent
Health does interfere	111	31.0
Health does not interfere	247	69.0
Total	358	100.0

Income

Nearly half, 164, (45.8 percent) of the participants in this study reported having annual income of less than $10,000. Eighty-five (23.7 percent) indicated an income of between $10,001 and $15,000. Those with annual income between $15,001 and $20,000 numbered 37 (10.3 percent); 28 (7.8 percent) had an income between $20,001 and $25,000; and 20 (5.6 percent) reported income between $25,001 and $30,000. Those with annual income above $30,000 represented a total of 24 respondents. Eight (2.2 percent) reported an income in the $30,001 to $35,000 range; six (1.7 percent) were in the $35,001 to $40,000 range; and ten (2.8 percent) indicated that their annual income was over $40,000 (see Table 8).

Table 8. Income of respondents.

Range of Income	Frequency	Percent
Under $10,000	164	45.8
$10,001-15,000	85	23.7
$15,001-20,000	37	10.3
$20,001-25,000	28	7.8
$25,001-30,000	20	5.6
$30,001-35,000	8	2.2
$35,001-40,000	6	1.7
Over $40,000	10	2.8
Total	358	100.0

Employment Status

Asked whether they were currently employed, either full time or part time, 43 (12.0 percent) responded yes; 315 (88.0 percent) responded no. A majority of the participants in the study indicated that they had engaged in some type of volunteer work during the past year. Volunteers represented 234 (65.4 percent) of the sample. The remaining 124 (34.6 percent) said they had not volunteered during the preceding year (see Tables 9 and 10).

Table 9. Employment status.

Employment Status	Frequency	Percent
Employed	43	12.0
Not employed	315	88.0
Total	358	100.0

Table 10. Participation in volunteer work.

Volunteer Status	Frequency	Percent
Volunteer	234	65.4
Do not volunteer	124	34.6
Total	358	100.0

Social Activity

When asked if they personally socialized or visited with persons outside their home once or more a week, only 37 (10.3

percent) responded in the affirmative. Those who did not frequently socialize outside the home numbered 321 (89.7 percent) (see Table 11).

Table 11. Participation in social activity.

Social Activity	Frequency	Percent
Active	37	10.3
Not active	321	89.7
Total	358	100.0

Mobility

Participants were asked if they had difficulty obtaining transportation when needed. Thirty-seven (10.3 percent) indicated that they did; 321 (89.7 percent) reported no difficulty (see Table 12).

Table 12. Mobility.

Mobility	Frequency	Percent
Difficulty	37	10.3
No difficulty	321	89.7
Total	358	100.0

Participation at Senior Center

To ascertain whether there was a difference in self-concept of those in this study who participated in activities at a senior citizens center and those who did not,

respondents were asked the following question: "Do you visit or participate in activities at a senior citizens center once or more a week?" Over three-fourths (272 or 76.0 percent) indicated that they did. The remaining 86 (24.0 percent) said they did not (see Table 13).

Table 13. Participation in activities at senior citizens center.

Participation	Frequency	Percent
Participate weekly	272	76.0
Do not participate weekly	86	24.0
Total	358	100.0

Senior Center Membership

Two hundred ninety (81.0 percent) indicated that they were a member of a senior citizens center; 67 (18.7 percent) were not members; one participant did not respond to this item (see Table 14).

Table 14. Senior center membership.

Membership	Frequency	Percent
Member	290	81.0
Nonmember	67	18.7
Missing	1	.3
Total	358	100.0

Participation in Learning

Twelve (3.4 percent) of the people participating in the study indicated that they had taken a college or university course within the last year; 346 (96.6 percent) had not. Those who had taken a course at a community college or vocational technical school within the past year numbered only 8 (2.2 percent); 350 (97.8 percent) had not. Twenty-six (7.3 percent) of the respondents had taken an adult education course within the last year; 332 (92.7 percent) had not. Respondents who had participated in a course or taken a lesson at a senior center or retirement home facility in the past year numbered 64 (17.9 percent); 294 (82.1 percent) had not. Forty-eight (13.4 percent) had taken private lessons within the year to learn a craft or skill; 309 (86.3 percent) had not; one participant did not respond to this item on the survey. Of those responding, 135 persons (37.7 percent) had taught themselves a craft or skill within the past year; 222 (62.0 percent) had not; one person did not respond to this item. When asked if they had participated in a study group or workshop during the past year to learn more about a topic, 101 (28.2 percent) indicated that they had; 256 (71.5 percent) had not; one participant did not respond to the question. Of the 358 respondents, 142 (39.7 percent) reported that they had engaged in individual reading or research during the past year in an effort to learn more about a topic; 216 (60.3 percent) had not (see Table 15).

Table 15. Participation in learning.

Participation	Frequency	Percent
College or university course	12	3.4
Community college or vocational-technical school course	8	2.2
Adult education course	26	7.3
Course or lesson at senior center or retirement home	64	17.9
Private lessons	48	13.4
Self-taught craft or skill	135	37.7
Study group or workshop	101	28.2
Individual reading	142	39.7
Missing cases	3	.9

Analysis of the Data

A stepwise multiple regression was used to test Hypotheses 1 and 2. The first analysis tested all independent variables (participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence) against the dependent variable, self-concept. The purpose of this analysis was to determine if all independent variables taken together relate significantly to the dependent variable, self-concept. The significance level of .05 was used in this analysis.

Hypothesis 1

There is no relationship between the dependent variable, self-concept, and the independent variables, participation in learning, age, gender, marital status, educational

attainment, health, income, employment status, social activity, mobility, and residence taken together.

Inspection of the data in Tables 16 and 17 indicates significance at or below the .05 level for the relationship between self-concept and the independent variables, p = .0001. The magnitude of the variability which has been

Table 16. Analysis of variance regression for self-concept.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Regression	10	23229.14977	2322.91498	4.05816	.0001
Residual	334	191183.36038	572.40527		

R^2 = .10834

Table 17. Multiple regression analysis for self-concept by independent variables.

Variable	B (Raw Score)	Beta	T	p
Educational Attainment	-6.18286	-.2759	-5.042	.0001
Health	-5.79381	-.1069	-2.095	.0416
Residence	1.53475	.0303	.330	.7415
Employment Status	-5.91201	-.0775	-1.470	.1424
Participation	- .51972	-.0282	- .537	.5916
Mobility	.07667	9.286E-04	.017	.9861
Age	1.70124	.1007	1.892	.0594
Gender	-6.50974	-.1181	-2.073	.0389
Income	- .09649	.0066	.118	.9059
Marital Status	-2.57947	-.0499	- .517	.6054
Social Activity	*	*	*	*

*Variable not in equation due to uneven distribution of data.

accounted for by all the independent variables is R^2 equal to .10834. Upon adjustment for shrinkage, the R^2 is equal to .08164. Therefore, taken together, the independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence, do correlate significantly with self-concept at the .05 level. However, all variables combined account for less than 11 percent of the total variance. Based on this finding, Hypothesis 1 is not retained as at the .05 level the correlation is greater than 0. Statistically, the relationship is significant; however, based on the small percentage of variance (11 percent), there is little practical significance.

The second analysis tested each independent variable against the dependent variable. The purpose of this analysis was to determine if independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility and residence, taken separately, accounted for a significant portion of the variability seen in the dependent variable, self-concept.

Hypothesis 2

One or more of the independent variables, participation in learning, age, gender, marital status, educational

attainment, health, income, employment status, social activity, mobility, and residence, taken singly, do not account for a significant portion of the variability seen in the dependent variable self-concept.

Variables were entered into the stepwise multiple regression one by one in the following order: educational attainment, age, gender, marital status, residence, health, income, employment status, social activity, mobility, and participation in learning.

Inspection of the data in Table 18 indicates significance at or below the .05 level for a relationship between the independent variable, educational attainment, and the dependent variable, self-concept. The magnitude of the variability which has been accounted for by educational attainment is R^2 equal to .0739. At the .05 level of significance, the correlation is greater than zero. Therefore, educational attainment contributes to the dependent variable self-concept but explains only about 7.4 percent of the variance. No significant change in R^2 was seen in the multiple regression after the first variable was entered. Independent variables, age, gender, marital status, residence, health, income, employment status, social activity, mobility, and participation in learning combined resulted in an R^2 of .10834, or a change of .03442, and account for about 3 percent of the variance in self-concept. This means that those variables together were responsible for

Table 18. Summary of stepwise procedure for first variable entered.

Step	Variable	Multiple R	R^2	F	Sig.
1	Educational Attainment	.2719	.0739	27.377	<.05

very little change in the variance in self-concept. Based on these findings, Hypothesis 2 is not retained. The variable educational attainment accounts for a small percentage of the variance in self-concept.

A one-way analysis of variance on each independent variable was utilized to test each group of items appearing on the researcher-prepared instrument (see Appendix B) to determine if there was any significant difference within those groups. Again, a significance level of .05 was used.

Educational Attainment. Self-concept total scores within this group were significantly different ($p = .0001$). Within the educational attainment group, the mean score (329) for the non-high school graduates was significantly higher than the mean score of any other group (see Tables 21 and 22, Appendix B).

Age. Although there was an indication ($p = .0381$) that there was a significant difference among the six age groups, the Newman-Keuls procedure reported that no two groups were significantly different at the .05 level (see Tables 23 and

24, Appendix B). In an attempt to find the location of the significant difference within the age groups, a one-way analysis was run at a significance level of .10, but again the Newman-Keuls procedure reported no significant difference among the six age groups.

Health. There was no significant difference ($p = .0821$) in self-concept of those whose health interfered with their activity and those whose health did not interfere (see Tables 25 and 26, Appendix B).

Gender. The one-way analysis of variance showed no significant difference in the mean score by gender. At the .05 level of significance, $p = .2241$ meaning that there was no difference between self-concept scores of older men and women (see Tables 27 and 28, Appendix B).

Marital Status. Mean scores for self-concept did not differ between those who were married and those who were not. At the .05 level of significance, $p = .9435$ indicated no significant difference based on marital status (see Tables 29 and 30, Appendix B).

Residence. Mean scores in this group were not significantly different. With $p = .7463$, the one-way analysis of variance showed no significant difference in mean scores of those who lived alone and those who did not (see Tables 31 and 32, Appendix B).

Income. Although income was not found to be significantly related to self-concept, a significant difference in self-concept ($p = .0059$) was found within this group. Self-concept scores of those in the lowest income group were higher than those in the next two highest income levels (see Tables 33 and 34, Appendix B).

Employment Status. There was no significant difference ($p = .3615$) in the mean self-concept scores of those who were employed and those who were not. Similarly, the score for self-concept did not differ significantly ($p = .5414$) based on whether or not respondents had volunteered during the past year (see Tables 35-38, Appendix B).

Social Activity. At $p = .5074$, the one-way analysis of variance revealed no significant difference based on social activity (see Tables 39 and 40, Appendix B).

Mobility. There was no significant difference ($p = .5074$) in the mean self-concept score of those who had difficulty obtaining transportation and those who did not (see Tables 41 and 42, Appendix B).

Membership. Self-concept mean scores of those who were members of a senior citizens center did not differ significantly, $p = .2055$, from those who were not members (see Tables 43 and 44, Appendix B).

Participation in Learning. There was no significant difference in the mean self-concept scores of older adults in this study who participated in learning activities and those who did not. (See Tables 45-60, Appendix B).

Hypothesis 3

There is no difference in the self-concept of older adults who participate in senior citizens center activities and those older adults who do not.

A one-way analysis of variance was used to test Hypothesis 3. Most of the respondents (267) indicated that they did participate in activities at a senior citizens center once or more a week and had a mean score of almost 320 for self-concept. Those who participated in activities at a center less frequently or not at all represented 78 of the respondents with a mean self-concept score of 319. Within this group, $p = .9382$, which is greater than the .05 level of significance and means that no significant difference was found in the self-concept scores of older adults in this study who participated in activities at a senior citizens center once or more a week and those who did not. Tables 19 and 20 further explain the data. Based on these findings, Hypothesis 3 is retained.

Table 19. Means for participants and nonparticipants.

Group	Count	Mean	Standard Deviation
Participants	267	319.6854	26.0205
Nonparticipants	78	319.4359	21.1086
Total	345	319.6290	24.9658

Table 20. Results of one-way analysis of variance test on self-concept scores of older adults who frequently participate in senior center activities and those who do not.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	3.7576	3.7576	.0060	.9382
Within Groups	343	214408.7525	625.0984		
Total	344	214412.5101			

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This study dealt with investigating the selected independent variables, participation in learning, age, gender, marital status, educational attainment, health, income, employment status, social activity, mobility, and residence, and their combined and unique relationship to the dependent variable, self-concept, in older adults. Additionally, this study was designed to determine whether there was a difference in the self-concept of older adults who participate in activities at a senior citizens center and those who do not. The participants in the study were volunteer older men and women who were present at a senior citizens center function and volunteer older men and women who were residing in a retirement facility. The data for the study was collected by the researcher and one assistant at each site during the summer of 1990.

This chapter begins with the conclusions which resulted from an analysis of the data collected. The chapter concludes with recommendations to professionals and recommendations for further study.

Conclusions

The mean self-concept score as measured on the Tennessee Self-Concept Scale indicated that most of the respondents in the study had mean self-concept scores within the normal range of 317 to 405 (Roid and Fitts, 1988, p. 17). Those who had mean scores below 317, or a less than positive self-concept, include respondents with more than a high school education (see Table 21, Appendix B), those under 70 and those over 84 (see Table 23, Appendix B), and those respondents in four different annual income ranges (see Table 33, Appendix B). Further, those respondents who did participate in a community college or vocational technical school course within the past year revealed less than positive mean self-concept scores. Similarly, those in the study who had participated in a community college or vocational-technical course, those who had taken an adult education course, and those who had participated in a study group or workshop within the past year had mean self-concept scores below 317 (see Tables 47, 49, and 57, Appendix B).

This study revealed that when taken together, the independent variables were significantly related to self-concept but explained only a small portion of the variance. However, when taken singly, only educational attainment had a significant correlation to self-concept. The results of a one-way analysis of variance indicated that those older

adults with the least amount of formal education, those who had not graduated from high school, had the highest mean score for self-concept. Palmore and Luikart (1972) and Larson (1978) also found highest levels of well-being among those who had lower levels of education. Ward (1977) reported that educational attainment is a more effective predictor of self-esteem in men than in women. Results of this study differ from those of Brockett (1987) who reported a .40 correlation between positive self-concept and educational attainment, Schiamberg, Chin and Spell (1985) who found a positive relationship between positive self-concept and academic achievement, and Goodman (1985) who reported that those with higher levels of educational attainment had higher group means for self-concept than those with less education. Fisher (1983) found that educational attainment had no significant impact on the self-concept of older adults.

While there was no significant relationship between age and self-concept, there appears to be a significant difference in mean scores within the six age groups of respondents in the study; however, it was not possible to detect where that difference was to be found. Birren and Schaie (1985) reported that about one half of the 17 studies on self-concept of the elderly that they reviewed showed no relationship between age and self-concept and about one half of the studies did report a significant relationship. While

noting a decline in subjective well-being with advancing age, Larson (1978) suggested that other factors related to aging other than age itself affect the self-concept of the elderly.

Although this study found no significant relationship between income and self-concept, a significant difference in mean scores within the income groups was detected. With the exception of the nine respondents reporting annual income of over $40,000 who had the highest mean score for self-concept, those respondents at the lowest income level reported the highest mean self-concept scores. Larson (1975) and Palmore and Luikart (1972) also found a relationship between self-concept and income at the lower levels of income.

Perhaps these findings can be explained by the possibility that those older adults who have worked long and hard to reach higher educational attainment and higher levels of income feel a loss or potential loss of their contribution to society and their financial independence as they near or reach retirement. Consequently, being older and living on a fixed income or not being able to use their education in active employment may cause an erosion of their self-concept.

No significant relationship was found in this study between participation in learning, gender, marital status, health, employment status, social activity, mobility, or residence. Fisher (1983), too, found no significant relationship between participation in learning and well-being. Differing from the results of the analysis of data on

participation in learning, Petry and Jones (1984), Mizer (1975) and Schiamberg, Chin and Spell (1985) did report correlation between participation in learning and positive self-concept.

In support of the findings of this study, Larson (1978) reported no significant relationship between gender and mean self-concept scores of older adults. Verbrugge (1988) suggested that women have lower self esteem than men, and Ward (1977) detected a difference in predictors of self-concept between men and women noting that education and income were greater predictors of self-concept in men while activity was a greater predictor in women. No significant relationship between marital status and self-concept was found in this study. In contrast, Larson (1978) did find a relationship between marital status and well-being.

The finding in this study that health does not appear to interfere with the overall activity of most respondents was supported by the findings of Stanford and Alexander (1982), Fowles (1983), Owen (1985) Neugarten and Neugarten (1986), Horn and Meer (1987), and Dychtwald and Flower (1990). However, while the analysis of the data in this study showed no significant relationship between health status and self-concept, Schwartz and Kleemeier (1965), Larson (1978) and Kline et al. (1990) all reported a strong correlation between health and self-concept.

Coates (1984) stated than meaningful activity is the backdrop for an evolving self-concept and Stephens and Jacobus (1985) stressed that remaining active and independent is important to self-concept. Although this study did not show a significant relationship between social activity and self-concept, Larson (1978) did find a relationship between social activity and positive self-concept. Larson's finding was further supported by Nurius (1986), Horn and Meer (1987), Long (1989), Furstenberg (1989) and Berger and Hecht (1989) who all reported a negative correlation with social withdrawal and life satisfaction.

While residence or living arrangement did not significantly correlate with self-concept in this study, Reid, Haas, and Hawkings (1977) and Schiamberg, Chin and Spell (1985) found a relationship between self-concept and residence circumstances. Contrary to the results of this study, Cutler (1972) found a significant relationship between self-concept and availability of transportation.

At the onset of this study, it was anticipated that mere participation in activities at a senior citizens center alone may be an indication of a positive self-concept since these respondents are getting out and interacting with others in their age group. Although most respondents (77 percent) in this study were frequent participants in senior citizens center activities, there was no significant difference found in the mean self-concept scores of those who participated in

activities at a center one or more times a week and those who did not. This finding might suggest that a positive self-concept in older adults is an indication of inner feelings of self-worth and is not affected by socialization or group activities.

What has been found through this study, then, was that only one of the 11 independent variables, educational attainment, was significantly related to self-concept; but it was the lack of educational attainment not the acquisition of education that correlated with a positive self-concept. This finding has significance for professionals in both adult and higher education and health services as they might look for signs of low self esteem and symptoms of depression more in learners who are more highly educated than in those with less education. It also appears from the data gathered in this study that limited financial resources does not have a significant effect on positive self-concept but that older persons with higher levels of income may experience a lower self-concept.

Although the mean self-concept score of most of the respondents in this study fell within the normal range of 317 to 405, the data showed that most of the mean scores were near the low end of that range. It may be concluded, therefore, that while older adults have a normal self-concept, it may not be a strong positive self-concept. Keeping in mind that self-concept can change, professionals

and nonprofessionals associated with older adults might be cognizant of the possibility of a borderline normal self-concept dropping below the normal range.

Further, as a result of this study, about 89 percent of the variability in the dependent variable, self-concept, is unexplained. This result can be interpreted in a positive manner since it suggested that all but one independent variable, educational attainment, are not predictors of a positive self-concept and, therefore, circumstances such as loss of a spouse or loved one, diminished financial resources, declining health, or lack of socialization or participation in learning need not be seen as negative factors in aging.

Recommendations to Professionals

The following recommendations are made to educational, health, and recreational professionals regarding their relationship with older adults:

1. Those older adults at higher levels of educational attainment and those at higher levels of income should be looked at as potential candidates for lower self-concept.
2. Both professionals and friends and family of older adults should recognize that statements of worthlessness or sadness and withdrawal from physical, mental, and social activity may be signs of a changing self-concept and should not be casually dismissed.

3. Despite not finding any significant difference in mean self-concept scores of those in the study who participated in senior citizens center activities one or more times a week and those who did not, it was found that 77 percent of the older adults in this study participated in some activity at a senior citizens center one or more times a week. This would suggest that senior centers are offering relevant educational, recreational, and social programs. It is therefore recommended that senior citizens centers continue to provide these meaningful programs for older adults.

Recommendations for Further Study

The following recommendations are made for further study:

1. Further study is suggested to investigate why older adults with higher levels of education have lower self-concept than those less educated.
2. Additional research on self-concept of older adults is indicated to determine why a significant difference in self-concept scores was found within the age groups and within the income groups of older adults.
3. Since much of the findings of this study was contrary to previous studies of older adults, it is suggested that a similar study comparing older adults in Montana to older adults throughout the country be done in an effort to

find if the self-concept of the respondents in this study compare to or differ from older adults in other states.

4. Studies using independent variables different from those used in this study should be conducted. Suggested independent variables include recreational activity, physical activity, interpersonal relationships, and a more detailed look at marital status to investigate if there are differences in self-concept among those who have never married, those who are widowed, separated, or divorced, and those who are currently married.
5. Because of the small variability in self-concept scores found in the sample, the results of this study indicate a need for further research using a sample of older adults with strong positive self-concepts and strong negative self-concepts.
6. In view of the increasing numbers of the older of the old among the population, there is a need for further research on the very old, 85 and older.

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APPENDICES

APPENDIX A

INSTRUMENTS

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Kay Tippett
809 W. Villard, #51
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Dear Ms. Tippett:

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Sincerely yours,

Susan Dunn Weinberg
Assistant to the President
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SDW:se
Enclosure

TENNESSEE SELF-CONCEPT SCALE

DIRECTIONS: AFTER CAREFULLY READING A STATEMENT, SELECT YOUR RESPONSE (1-5) AND CIRCLE THAT NUMBER IN THE ANSWER COLUMN AT THE RIGHT. THERE ARE NO "RIGHT" OR "WRONG" ANSWERS. SIMPLY ANSWER AS TRUTHFULLY AS YOU CAN.

COMPLETELY FALSE	1
MOSTLY FALSE	2
PARTLY FALSE AND PARTLY TRUE	3
MOSTLY TRUE	4
COMPLETELY TRUE	5

1.	I have a healthy body	1)	1	2	3	4	5
2.	I am an attractive person	2)	1	2	3	4	5
3.	I consider myself a sloppy person	3)	1	2	3	4	5
4.	I am a decent sort of person	4)	1	2	3	4	5
5.	I am an honest person	5)	1	2	3	4	5
6.	I am a bad person	6)	1	2	3	4	5
7.	I am a cheerful person	7)	1	2	3	4	5
8.	I am a calm and easygoing person	8)	1	2	3	4	5
9.	I am a nobody	9)	1	2	3	4	5
10.	I have a family that would always help me in any kind of trouble	10)	1	2	3	4	5
11.	I am a member of a happy family	11)	1	2	3	4	5
12.	My friends have no confidence in me	12)	1	2	3	4	5
13.	I am a friendly person	13)	1	2	3	4	5
14.	I am popular with men	14)	1	2	3	4	5
15.	I am not interested in what other people do	15)	1	2	3	4	5
16.	I do not always tell the truth	16)	1	2	3	4	5
17.	I get angry sometimes	17)	1	2	3	4	5
18.	I like to look nice and neat all the time	18)	1	2	3	4	5
19.	I am full of aches and pains	19)	1	2	3	4	5
20.	I am a sick person	20)	1	2	3	4	5
21.	I am a religious person	21)	1	2	3	4	5
22.	I am a moral failure	22)	1	2	3	4	5
23.	I am a morally weak person	23)	1	2	3	4	5
24.	I have a lot of self-control	24)	1	2	3	4	5
25.	I am a hateful person	25)	1	2	3	4	5
26.	I am losing my mind	26)	1	2	3	4	5
27.	I am an important person to my friends and family	27)	1	2	3	4	5
28.	I am not loved by my family	28)	1	2	3	4	5
29.	I feel that my family doesn't trust me	29)	1	2	3	4	5
30.	I am popular with women	30)	1	2	3	4	5
31.	I am mad at the whole world	31)	1	2	3	4	5
32.	I am hard to be friendly with	32)	1	2	3	4	5

COMPLETELY FALSE	1
MOSTLY FALSE	2
PARTLY FALSE AND PARTLY TRUE	3
MOSTLY TRUE	4
COMPLETELY TRUE	5

33.	Once in a while I think of things too bad to talk about	33)	1	2	3	4	5
34.	Sometimes, when I am not feeling well, I am cross	34)	1	2	3	4	5
35.	I am neither too fat nor too thin	35)	1	2	3	4	5
36.	I like my looks just the way they are	36)	1	2	3	4	5
37.	I would like to change some parts of my body	37)	1	2	3	4	5
38.	I am satisfied with my moral behavior	38)	1	2	3	4	5
39.	I am satisfied with my relationship to God	39)	1	2	3	4	5
40.	I ought to go to church more	40)	1	2	3	4	5
41.	I am satisfied to be just what I am	41)	1	2	3	4	5
42.	I am just as nice as I should be	42)	1	2	3	4	5
43.	I despise myself	43)	1	2	3	4	5
44.	I am satisfied with my family relationships	44)	1	2	3	4	5
45.	I understand my family as well as I should	45)	1	2	3	4	5
46.	I should trust my family more	46)	1	2	3	4	5
47.	I am as sociable as I want to be	47)	1	2	3	4	5
48.	I try to please others, but don't overdo it	48)	1	2	3	4	5
49.	I am no good at all from a social standpoint	49)	1	2	3	4	5
50.	I do not like everyone I know	50)	1	2	3	4	5
51.	Once in a while, I laugh at a dirty joke	51)	1	2	3	4	5
52.	I am neither too tall nor too short	52)	1	2	3	4	5
53.	I don't feel as well as I should	53)	1	2	3	4	5
54.	I should have more sex appeal	54)	1	2	3	4	5
55.	I am as religious as I want to be	55)	1	2	3	4	5
56.	I wish I could be more trustworthy	56)	1	2	3	4	5
57.	I shouldn't tell so many lies	57)	1	2	3	4	5
58.	I am as smart as I want to be	58)	1	2	3	4	5
59.	I am not the person I would like to be	59)	1	2	3	4	5
60.	I wish I didn't give up as easily as I do	60)	1	2	3	4	5
61.	I treat my parents as well as I should (Use past tense if parents are not living	61)	1	2	3	4	5
62.	I am too sensitive to things my family says	62)	1	2	3	4	5
63.	I should love my family more	63)	1	2	3	4	5
64.	I am satisfied with the way I treat other people	64)	1	2	3	4	5
65.	I should be more polite to others	65)	1	2	3	4	5
66.	I ought to get along better with other people	66)	1	2	3	4	5
67.	I gossip a little at times	67)	1	2	3	4	5
68.	At times I feel like swearing	68)	1	2	3	4	5
69.	I take good care of myself physically	69)	1	2	3	4	5
70.	I try to be careful about my appearance	70)	1	2	3	4	5

COMPLETELY FALSE	1
MOSTLY FALSE	2
PARTLY FALSE AND PARTLY TRUE	3
MOSTLY TRUE	4
COMPLETELY TRUE	5

71.	I often act like I am "all thumbs"	71)	1	2	3	4	5
72.	I am true to my religion in my everyday life	72)	1	2	3	4	5
73.	I try to change when I know I'm doing things that are wrong	73)	1	2	3	4	5
74.	I sometimes do very bad things	74)	1	2	3	4	5
75.	I can always take care of myself in any situation	75)	1	2	3	4	5
76.	I take the blame for things without getting mad	76)	1	2	3	4	5
77.	I do things without thinking about them first	77)	1	2	3	4	5
78.	I try to play fair with my friends and family	78)	1	2	3	4	5
79.	I take a real interest in my family	79)	1	2	3	4	5
80.	I give in to my parents (Use past tense if parents are not living)	80)	1	2	3	4	5
81.	I try to understand the other fellow's point of view	81)	1	2	3	4	5
82.	I get along well with other people	82)	1	2	3	4	5
83.	I do not forgive others easily	83)	1	2	3	4	5
84.	I would rather win than lose in a game	84)	1	2	3	4	5
85.	I feel good most of the time	85)	1	2	3	4	5
86.	I do poorly in sports and games	86)	1	2	3	4	5
87.	I am a poor sleeper	87)	1	2	3	4	5
88.	I do what is right most of the time	88)	1	2	3	4	5
89.	I sometimes use unfair means to get ahead	89)	1	2	3	4	5
90.	I have trouble doing the things that are right	90)	1	2	3	4	5
91.	I solve my problems quite easily	91)	1	2	3	4	5
92.	I change my mind a lot	92)	1	2	3	4	5
93.	I try to run away from my problems	93)	1	2	3	4	5
94.	I do my share of work at home	94)	1	2	3	4	5
95.	I quarrel with my family	95)	1	2	3	4	5
96.	I do not act like my family thinks I should	96)	1	2	3	4	5
97.	I see good points in all the people I meet	97)	1	2	3	4	5
98.	I do not feel at ease with other people	98)	1	2	3	4	5
99.	I find it hard to talk with strangers	99)	1	2	3	4	5
100.	Once in a while I put off until tomorrow what I ought to do today	100)	1	2	3	4	5

THANK YOU VERY MUCH FOR YOUR HELP!

RESEARCHER-PREPARED INSTRUMENT

BEFORE BEGINNING TO COMPLETE THE SURVEY FORM, PLEASE TAKE A FEW MINUTES TO RESPOND TO THE FOLLOWING QUESTIONS. BE ASSURED THAT THE INFORMATION YOU GIVE WILL BE STRICTLY CONFIDENTIAL. DO NOT WRITE YOUR NAME ON THIS FORM.

PLEASE CAREFULLY CIRCLE THE LETTER (A, B, C, ETC.) THAT MOST ACCURATELY ANSWERS EACH QUESTION.

WHAT IS YOUR AGE?

A. Under 60
B. 60-64
C. 65-69
D. 70-74
E. 75-79
F. 80-84
G. Over 84

WHAT IS YOUR GENDER?

A. Female
B. Male

ARE YOU CURRENTLY MARRIED?

A. Yes
B. No

DO YOU LIVE ALONE?

A. Yes
B. No

WHAT IS YOUR EDUCATION LEVEL?

A. Less than high school graduate
B. High school graduate or GED
C. Attended college but did not graduate
D. College graduate
E. Attended or completed graduate school

DOES YOUR HEALTH INTERFERE WITH YOUR OVERALL ACTIVITY?

A. Yes
B. No

WHAT IS YOUR APPROXIMATE ANNUAL INCOME BEFORE TAXES? (Include Social Security and pensions.)

A. Under $10,000
B. $10,001-$15,000
C. $15,001-$20,000
D. $20,001-$25,000
E. $25,001-$30,000
F. $30,001-$35,000
G. $35,001-$40,000
H. Over $40,000

ARE YOU CURRENTLY EMPLOYED, EITHER FULL TIME OR PART TIME?

A. Yes
B. No

HAVE YOU DONE ANY VOLUNTEER WORK DURING THE PAST YEAR?

A. Yes
B. No

DO YOU SOCIALIZE OR VISIT WITH PERSONS OUTSIDE YOUR HOME (NOT ON THE PHONE) ONCE OR MORE A WEEK?

A. Yes
B. No

DO YOU HAVE DIFFICULTY OBTAINING TRANSPORTATION WHEN NEEDED?

A. Yes
B. No

DO YOU VISIT OR PARTICIPATE IN ACTIVITIES AT A SENIOR CITIZENS CENTER ONCE OR MORE A WEEK?

A. Yes
B. No

ARE YOU A MEMBER OF A SENIOR CENTER?

A. Yes
B. No

HAVE YOU DONE THE FOLLOWING WITHIN THE LAST YEAR? CHECK YES OR NO.

Yes	No	
___	___	Taken a college or university course?
___	___	Taken a course at a community college or vocational-technical school?
___	___	Taken an adult education course?
___	___	Participated in a course or taken a lesson at a senior center or retirement home facility?
___	___	Taken private lessons to learn a craft or skill?
___	___	Taught yourself a craft or skill?
___	___	Participated in a study group or workshop to learn more about a topic?
___	___	Engaged in individual reading or research to learn more about a topic?

APPENDIX B

ONE-WAY ANALYSES OF VARIANCE TABLES

Table 21. Means for self-concept by educational attainment.

Education Attained	Count	Mean	Standard Deviation
Not high school graduate	109	328.8073	29.9148
High school graduate or GED	126	319.0635	23.3296
Attended college	67	312.2239	17.1533
College graduate	25	311.8400	14.3256
Attended or completed graduate school	18	306.3889	21.4425
Total	345	319.6290	24.9658

Table 22. Results of one-way analysis of variance test on self-concept by educational attainment.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	4	17568.7844	4392.1961	7.5865	.0001
Within Groups	340	196843.7258	578.9521		
Total	344	214412.5101			

Table 23. Means for self-concept by age.

Age in Years	Count	Mean	Standard Deviation
60-64	35	315.4286	21.5997
65-69	65	313.1077	22.8365
70-74	83	319.9518	26.2929
75-79	71	324.9859	23.1372
80-84	55	324.7818	28.9212
Over 84	36	316.3056	23.0277
Total	345	319.6290	24.9658

Table 24. Results of one-way analysis of variance test on self-concept by age.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	5	7285.8787	1457.1757	2.3849	.0381
Within Groups	339	207126.6314	610.9930		
Total	344	214412.5101			

Table 25. Means for self-concept by health.

Health Interference with Activity	Count	Mean	Standard Deviation
Health does	105	323.1619	27.5098
Health does not	240	318.0833	23.6628
Total	345	319.6290	24.9658

Table 26. Results of one-way analysis of variance test on self-concept by health.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	1883.9292	1883.9292	3.0405	.0821
Within Groups	343	212528.5810	619.6169		
Total	344	214412.5101			

Table 27. Means for self-concept by gender.

Gender	Count	Mean	Standard Deviation
Female	246	320.6667	23.9046
Male	99	317.0505	27.3840
Total	345	319.6290	24.9658

Table 28. Results of one-way analysis of variance test on self-concept by gender.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	923.0960	923.0960	1.4831	.2241
Within Groups	343	213489.4141	622.4181		
Total	344	214412.5101			

Table 29. Means in self-concept by marital status.

Marital Status	Count	Mean	Standard Deviation
Married	127	319.5039	24.9749
Unmarried	218	319.7018	25.0177
Total	345	319.6290	24.9658

Table 30. Results of one-way analysis of variance test on self-concept by marital status.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	3.1428	3.1428	.0050	.9435
Within Groups	343	214409.3673	625.1002		
Total	344	214412.5101			

Table 31. Means for self-concept by residence.

Living Arrangement	Count	Mean	Standard Deviation
Live alone	202	319.2624	24.3410
Do not live alone	143	320.1469	25.9004
Total	345	319.6290	24.9658

Table 32. Results of one-way analysis of variance test on self-concept by residence.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	65.5000	65.5000	.1048	.7463
Within Groups	343	214347.0101	624.9184		
Total	344	214412.5101			

Table 33. Means for self-concept by income.

Range of Income	Count	Mean	Standard Deviation
Under $10,000	157	324.6369	26.0099
$10,001-15,000	85	315.2941	21.0870
$15,001-20,000	37	310.8108	26.1628
$20,001-25,000	26	319.0385	21.4018
$25,001-30,000	19	311.8947	19.3560
$30,001-35,000	7	317.5714	15.2519
$35,001-40,000	5	309.4000	27.6188
Over $40,000	9	334.7778	38.8355
Total	345	319.6290	24.9658

Table 34. Results of one-way analysis of variance test on self-concept by income.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	7	12175.6608	1739.3801	2.8984	.0059
Within Groups	337	202236.8493	600.1093		
Total	344	214412.5101			

Table 35. Means for self-concept by employment status.

Employment Status	Count	Mean	Standard Deviation
Employed	42	322.9286	24.8443
Not employed	303	319.1716	24.9891
Total	345	319.6290	24.9658

Table 36. Results of one-way analysis of variance test on self-concept by employment status.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	520.6485	520.6485	.8349	.3615
Within Groups	343	213891.8616	623.5914		
Total	344	214412.5101			

Table 37. Means for self-concept by volunteer work.

Volunteer Status	Count	Mean	Standard Deviation
Volunteered	229	319.0437	24.5589
Did not volunteer	116	320.7845	25.8194
Total	345	319.6290	24.9658

Table 38. Results of one-way analysis of variance test on self-concept by volunteer work.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	233.3348	233.3348	.3737	.5414
Within Groups	343	214179.1754	624.4291		
Total	344	214412.5101			

Table 39. Means for self-concept by social activity.

Social Activity	Count	Mean	Standard Deviation
Active	35	322.2857	23.6103
Not active	310	319.3290	25.1329
Total	345	319.6290	24.9658

Table 40. Results of one-way analysis of variance test on self-concept by social activity.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	274.9286	274.9286	.4404	.5074
Within Groups	343	214137.5816	624.3078		
Total	344	214412.5101			

Table 41. Means for self-concept by mobility.

Mobility	Count	Mean	Standard Deviation
No difficulty	35	322.2857	23.6103
Difficulty	310	319.3290	25.1329
Total	345	319.6290	24.9658

Table 42. Results of one-way analysis of variance test on self-concept by mobility.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	274.9286	274.9286	.4404	.5074
Within Groups	343	214137.5816	624.3078		
Total	344	214412.5101			

Table 43. Means for self-concept by senior citizens membership.

Membership	Count	Mean	Standard Deviation
Member	283	318.7915	24.6959
Nonmember	61	323.2623	26.1992
Total	344	319.5843	24.9884

Table 44. Results of one-way analysis of variance test on self-concept by senior citizens membership.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	1003.0523	1003.0523	1.6092	.2055
Within Groups	342	213172.5029	623.3114		
Total	343	214175.5552			

Table 45. Means for self-concept by participation in university or college course within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	12	318.5000	29.8588
Did not participate	333	319.6697	24.8241
Total	345	319.6290	24.9658

Table 46. Results of one-way analysis of variance test on self-concept by participation in university or college course within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	15.8465	15.8465	.0254	.8736
Within Groups	343	214396.6637	625.0632		
Total	345	214412.5101			

Table 47. Means for self-concept by participation in community college or vocational-technical school course within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	8	312.7500	21.7633
Did not participate	337	319.7923	25.0422
Total	345	319.6290	24.9658

Table 48. Results of one-way analysis of variance test on self-concept by participation in community college or vocational-technical school course within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	387.5502	387.5502	.6211	.4312
Within Groups	343	214024.9599	623.9795		
Total	344	214412.5101			

Table 49. Means for self-concept by participation in adult education course within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	24	314.1667	20.6833
Did not participate	321	320.0374	25.2366
Total	345	319.6290	24.9658

Table 50. Results of one-way analysis of variance test on self-concept by participation in adult education course within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	769.6254	769.6254	1.2356	.2671
Within Groups	343	213642.8847	622.8656		
Total	344	214412.5101			

Table 51. Means for self-concept by participation in course or lessons at a senior citizens center or retirement facility within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	62	317.0001	20.0736
Did not participate	283	320.2049	25.9097
Total	345	319.6290	24.9658

Table 52. Results of one-way analysis of variance test on self-concept by participation in course or lessons at a senior citizens center or retirement facility within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	522.3971	522.3971	.8477	.3607
Within Groups	343	213890.1131	623.5863		
Total	344	214412.5101			

Table 53. Means for self-concept by participation in private lessons within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	47	318.3617	22.5151
Did not participate	298	319.8289	25.3598
Total	345	319.6290	24.9658

Table 54. Results of one-way analysis of variance test on self-concept by participation in private lessons within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	87.3873	87.3873	.1399	.7087
Within Groups	343	214325.1229	624.8546		
Total	344	214412.5101			

Table 55. Means for self-concept by participation in self-taught craft or skill within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	132	320.3333	21.5774
Did not participate	213	319.1925	26.8921
Total	345	319.6290	24.9658

Table 56. Results of one-way analysis of variance test on self-concept by participation in self-taught craft or skill within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	106.0688	106.0688	.1698	.6806
Within Groups	343	214306.4413	624.8001		
Total	344	214412.5101			

Table 57. Means for self-concept by participation in study group or workshop within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	97	316.4021	22.1617
Did not participate	248	320.8911	25.9131
Total	345	319.6290	24.9658

Table 58. Results of one-way analysis of variance test on self-concept by participation in study group or workshop within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	1405.1301	1405.1301	2.2626	.1334
Within Groups	343	213007.3801	621.0128		
Total	344	214412.5101			

Table 59. Means for self-concept by participation in individual reading or research within the past year.

Participation in Past Year	Count	Mean	Standard Deviation
Did participate	139	316.5324	20.5600
Did not participate	206	321.7184	27.3946
Total	344	319.6290	24.9658

Table 60. Results of one-way analysis of variance test on self-concept by participation in individual reading or research within the past year.

Source of Variation	D.F.	Sum of Squares	Mean Squares	F	p
Between Groups	1	2232.2359	2232.2359		
Within Groups	343	212180.2742	618.6014	3.6085	.0583
Total	344	214412.5101			