THE RELATIONSHIP BETWEEN KNOWLEDGE ABOUT AGING AND EXPECTATIONS FOR LATE ADULTHOOD

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Chapter I

INTRODUCTION

The rapid growth of the elderly population in America is a trend with significant social, political, and economic impact. Persons over 65 years of age account for 12.7% of the population in the United States at present and constitute the most rapidly growing segment of the total population. In 1900, there were 3.1 million Americans over the age of 65. Today, there are over 34.7 million (U.S. Census Bureau, 2000), leading Dychtwald (1989) to refer to this segment as a "nation within a nation." Between 1960 and 2000, the number of Americans over age 65 has doubled, and by 2030 it is estimated that almost 20% of the population will be age 65 or older. Among this growing elderly community, the number of those over 85 years of age are expanding the most rapidly, nearly quintupling during the last forty years (U.S. Census Bureau, 2001).

All these changes signal the emergence of a significant political power base. In his book The Age Wave, Dychtwald (1989) predicts that the elderly will soon become "the demographic group that sets the political agenda and dominates election outcomes" (p. 63). For example, in the 1980 national elections, an astounding 70% of people aged 55-74 voted. Again in the 1984 national elections, the oldest segment of the population voted at nearly twice the rate of the youngest voters.

The growth of the elderly population has serious economic significance as well. For example, although the elderly currently represent less than 13% of the population, it is estimated that their savings account for over 80% of the nation's total personal savings, and the elderly control over 60% of the nation's personal banking dollars (Vierck, 1990). Additionally, national poverty trends show that while the poverty rate among American

children has risen from 14% in 1960 to around 20% in 1991, the poverty rate among seniors has dropped from 35% to 12% in the same time frame (D'Antonio, 1996). Statistics such as these suggest that the rapid growth of the elderly population will have significant impact on society.

The growing political and economic strength of older adults contradicts the common beliefs about America's elderly population. Knowledge about aging can be defined as accurate beliefs about aging, and research shows that knowledge about aging is not keeping pace with the dramatic changes occurring among America's older adults (Rowe & Kahn, 1998). These trends indicate an increasing need for research into the nature of our beliefs about aging and the impact these beliefs have on our society as the social balance gradually shifts toward a "graying" America.

Medical advances and the growing availability of health and social services have contributed to the growth of the aging population and this growth has been steady and well documented (O'Reilly, 1999). Research shows, however, that knowledge levels about the elderly population are relatively low and commonly held beliefs about aging are often inaccurate (Pulliam & Dancer, 1996; Kline & Kline, 1991; Doka, 1987; Luszcs & Fitzgerald, 1986). In Palmore's (1998) summary of over 150 studies using his "Facts on Aging Quiz" survey questionnaire, he states that "the overall and most disturbing general finding is that most people know little about aging and have many misconceptions" (p. 43). And possibly more importantly, these misconceptions are negatively biased (Kite & Johnson, 1988).

Lack of knowledge about aging creates an opportunity for erroneous beliefs and negative biases to flourish and contributes to the decreasing social status and self-worth

of older adults (Kite & Johnson, 1988). Many scholars contend that attitudes about aging and the elderly are based largely on myth (Freidan, 1993; Rowe & Kahn, 1998). For example, common misperceptions are that most elderly persons are frail and ill (Butler, 1992), useless, miserable, and living in poverty (Palmore, 1998), and that aging is simply a process of deterioration (Freidan, 1993). At their most benign, these myths about aging and the elderly limit the accuracy of our beliefs and decrease our appreciation of the wide variety of experiences involved in the aging process. But negative attitudes and stereotypes about any segment of society constitute prejudices that can lead to discrimination (Erber & Danker, 1995; Quinn, 1995). Furthermore, there may be serious physical and psychological effects stemming from widespread negative bias against the elderly, including decreased health status (Levy & Langer, 1994), and even suicide (Osgood, 1995). Additionally, our beliefs about aging can have a significant personal impact. Negative attitudes based on inaccurate beliefs about aging may influence our own self-perceptions as we grow older, since aging is a process that all of us undergo. These attitudes are often internalized and become part of our self-concept, or how we see ourselves. When this occurs in older adults it can lead to lowered expectations for well being and a resultant decrease in health status. For example, there is evidence that the negative self-perceptions of elderly adults concerning old age result in a reluctance to seek health care for treatable conditions (Williamson & Fried, 1996).

In contrast, there is an increasing emphasis on the positive aspects of the aging process both in popular culture and scientific research (Darwin, 1997). This shift in perspective, perhaps fueled in part by the expanding elderly population, may be an indication that attitudes about the aging process are changing for the better. Theorists and

researchers continue to develop new models of aging and the strategies associated with health and vitality in the later years (Fries, 1989; Butler, 1999). One new framework, often referred to as "successful aging," is gaining popularity within America's popular culture as well as the scientific and medical communities. Supporters of this new paradigm contend that current beliefs about aging simply are not keeping pace with changes in the actual status of the elderly (Rowe & Kahn, 1998). They assert that lack of knowledge about the positive aspects of the aging process continues to handicap people as the confront their later years.

Problem Statement

It is widely accepted that negative attitudes and inaccurate beliefs about the elderly are common (Palmore, 1998), that the sources for these biases are ubiquitous and may even be automatic (Perdue & Gurtman, 1990), and that myths about the aging process stem partly from a denial of aging (Freidan, 1993). It remains unclear, however, what relationship these erroneous views have with the expectations of adults concerning their later years. Research shows that inaccurate beliefs about aging contribute to negative attitudes toward older adults and increased knowledge about aging is predictive of more positive attitudes toward old age and the elderly (Luszcz & Fitzgerald, 1996). However, there is a paucity of research into the connection between knowledge about aging and personal expectations about aging. Potentially, our own beliefs about aging can have a significant impact on our later years. Just as negative attitudes about the elderly have been linked to decreased health status (Levy & Langer, 1994) and even suicide (Osgood, 1995) among the elderly, negative beliefs about our own impending old age may create self-fulfilling prophecies that ultimately lead to decreased well-being and health status in

our own later years. Unfortunately, there are few studies that examine whether the prevalent misperceptions about aging and the elderly are reliable indicators of how people anticipate their own later years.

Expectations about late adulthood encompass the hopes, goals, and concerns adults have regarding their future. For example, research shows that the ability to create and maintain stable life goals is critical for positive adjustment in later years and an important predictor of life satisfaction (Robbins, Lee, Wan, 1994). These life goals are based in part on a person's expectations, or anticipated future circumstances. At any age, people imagine themselves in the future, and expectations of later years usually involve both hoped for and feared circumstances (Markus & Nurius, 1986; Cross & Markus, 1991). Common concerns include physical and mental health status, positive personality characteristics, and autonomy issues (Ryff, 1989; Roberts, 1992; Doka, 1986). Self-knowledge and self-acceptance are also important and positive qualities to most adults (LaPierrre, Boufard, & Bastin, 1997). If it is true that "the majority of Americans believe that most aged are senile, impotent, useless, lonely, miserable, and in poverty" (Palmore, 1998, p. 8), then it would be useful to examine whether stereotypical views such as these relate to the expectations of people about their own impending experiences of old age.

Considering the changing attitudes about the aging process and the emergence of new models such as the successful aging paradigm, this study addressed the following two questions:

1. What are the predominant personal expectations regarding old age among people today?

2. Is there a relationship between these expectations and the accuracy of people's beliefs about aging?

Purpose of the Study

This study linked two areas of interest in current gerontological research and investigated both qualitative and quantitative aspects of aging. Qualitatively, it identified the expectations associated with old age among a variety of age groups and also provide information about which aspects of impending old age are considered important. This information is helpful in determining the significant themes which our current culture associates with aging. In this way, the study can contribute to a deeper understanding of our cultural climate regarding the aging process in America today.

Secondly, this study investigated current beliefs about aging by measuring knowledge levels. New and more positive paradigms of aging are beginning to take root in popular culture and a growing emphasis on gerontological research makes accurate information about aging more accessible to the general public. These changes influence knowledge levels, and this study provides a quantitative measurement of knowledge about aging and the elderly. Additionally, this study identified the common misperceptions about aging and will serve as a useful indication of where our understanding of the "aging experience" needs improvement. As such, this study is useful in the areas of education, social policy, and gerontological research.

Finally, this study filled a gap in current gerontological research by investigating the relationship between knowledge about aging and personal expectations about old age. There is little information about how erroneous beliefs such as "most elderly are frail and ill" (Butler, 1992) relate to people's concerns that they themselves will be frail and ill in

later years. Beliefs about aging have been shown to impact critical areas of late adulthood, including social status, health, and mental well-being (Levy & Langer, 1994; Osgood, 1995). Stereotypical misperceptions and lack of knowledge about aging often lead to unfortunate self-fulfilling prophecies among older adults resulting in poor health status and isolation (Williamson & Fried, 1996; Fries, 1989). The purpose of this study was to examine whether a relationship exists between knowledge about aging and our expectations of late adulthood. The results of this study provided valuable insight into whether inaccurate beliefs of aging influence the way we envision our own later years. Figure 1 shows the theoretical relationships between knowledge about aging, expectations of late adulthood, and the demographic variables.

Insert Figure 1

Objectives

This study addressed the following objectives:

- To measure current knowledge levels and identify common misperceptions about aging.
- To identify the expectations young and middle-aged adults have regarding their own later years.
- To examine the relationship between knowledge about aging, demographic variables, and expectations.

Questions Addressed

Knowledge levels about aging are low and misperceptions are common. These misperceptions contribute to prejudice against the elderly and a fear of the aging process. Misperceptions about aging often lead older adults to expect illness and isolation, and these expectations have dramatic influences on their health and well-being. This study focused on an exploration of how knowledge about aging relates to the type of expectations people have regarding their own impending old age. The main questions addressed in this study were:

1. What do particpants actually know about aging as measured by Palmore's "Facts on Aging Quiz (FAQ)?"
2. Do the responses to the FAQ identify any common misperceptions about aging among the participants?
3. What expectations for late adulthood do participants report (Old Age Questionnaire).
4. Are FAQ scores and misconceptions associated with the reported expectations for late adulthood?

Theoretical Context

Symbolic Interactionism

Symbolic interactionism (SI) is a theoretical framework which focuses on the interpretation of symbols and the shared meanings which orient our social interactions and define our self perceptions (LaRossa & Reitzes, 1993). Core assumptions are:

- people live in a symbolic environment as well as a physical environment, and acquire complex sets of symbols in their minds;

- people are reflexive, and their introspection gradually creates a definition of self;
- and behavior is organized and directed in terms of social acts.

SI asserts that personal development and identity are based on social interaction. Behaviors, in the form of gestures, are interpreted within the context of their symbolic meanings. The meaning of any behavior is subjective, but socially defined behaviors become significant as they take on consensual meaning. These shared meanings are created through social interaction and interpretation. In this way we form an understanding of ourselves and our social relationships.

Key concepts include symbol, role, and position. A symbol is an object or action which represents something else. A central tenet of this framework is that social interaction in human society is occurs primarily on the symbolic level. Symbols, in the form of objects or gestures, facilitate social interactions by signifying socially defined meanings. For example, when a father raises his voice to a child, several meanings are communicated. First, the raised voice symbolizes the father's anger. Second, it signifies to the child that the child's behavior is deserving of punishment. Finally, the raised voice symbolizes the power and authority of the father over the child. The significance of the raised voice is understood by both father and child and therefore has a shared meaning.

A role is a pattern of learned gestures, expectations, and interpretations made by a person in a social situation (Klein & White, 1996). Examples of roles include parent, spouse, citizen, and employer. Role behavior derives its meaning from social interaction and must be placed in a symbolic context to be understood. Role clarity results when the social expectations for a given role are clearly defined, as in the example of an elderly

grandmother. She may fill several roles within her family. For example, her roles may include her husband's wife, her daughter's parent, and her school-aged grandchildren's grandmother. If the roles of wife, parent, and grandparent are clearly defined within her family then she has no trouble understanding and enacting her various roles. Role strain may result, however, when a person takes on multiple roles but cannot adequately harmonize them, such as when the grandmother decides to work as a volunteer at the local community center. The investment of time and effort into her new role takes away from her other roles, and therefore her new role as a worker may conflict with her ability to successfully fulfill her other roles. This conflict results in role strain.

Finally, a position represents a set of specific behaviors and expectations in the context of social relationships (Klein & White, 1996). Positions define the rights and responsibilities a person has within a social structure. For example, the position of mother implies a responsibility for the care and upbringing of her children and also provides her authority or rights over those children.

Two important contributors to SI were Charles Cooley and George Mead (LaRossa & Reitzes, 1993). Cooley's initial conception of the "looking-glass self" suggested that people perceive themselves based on how they imagine that others perceive them. He asserted that interaction with others provides a person with feedback about themselves in the form of reflected appraisal, similar to the way that looking into a mirror provides feedback regarding a person's appearance. Mead elaborated on Cooley's concept to incorporate the integration of these reflected appraisals into the formation of a person's self-concept (Mead, 1934). Mead contended that the feedback acquired through interaction with others contributes to social and personal development, and that this

process of socialization leads to the formation of a person's self concept. According to Mead, a person is "reflexively adaptive" to social interaction. Further, a person's self concept is based on this process of social adaptation. A person's self concept therefore constitutes a dynamic set of roles which are continually redefined throughout a lifetime.

An important concept of symbolic interactionism is the "definition of the situation." Based on the classic psycho-social dictum that " What humans define as real are real in their consequences" (Thomas & Thomas, 1928, p.576), the definition of the situation refers to the connection between perception of the environment and the behavior associated with those perceptions.

Labeling Theory

Labeling theory, which stems from symbolic interactionism, further reinforces the link between perception and behavior and helps describe the influence that beliefs about aging have on the elderly (Jenkins, 1996). Labeling theory first emerged as a sociological model of deviant behavior. Contemporary scholars contend, however, that the major tenets of the labeling perspective apply to a broad range of psychosocial issues (Crescimanno, 1982). In general, labeling theory suggests that a person's self-perception and behavior depend in large part on the way society responds to that person. In terms of aging, the labeling perspective suggests that once individuals are categorized as old, social expectations based on stereotypical definitions of "old" begin to influence social interaction. The negative connotations of "old" lead to negative expectations, and these expectations often create self-fulfilling prophecies. Social expectations lead to behavior, on the part of the "old" person, which confirms the initial negative expectations. In this way, labeling and the resultant influences on social interaction define the situation.

Stigma theory is another perspective closely aligned with symbolic interactionism. Stigma theory suggests that persons with certain culturally devalued characteristics are often considered to be less than fully human (Jenkins, 1996). Stigma is a social construct, a reflection of cultural values. In the U.S., stigmatized social groups include elderly, disabled, and poor persons (Becker & Arnold, 1986).

Based on symbolic interactionism and its associated theories, certain assumptions can be made about the relationships between beliefs and expectations. These theoretical relationships between knowledge about aging, expectations for late adulthood, and various demographic variables are described in Figure 1.

Insert Figure 1

Limitations

This study has several potential limitations. First, a sample of convenience was used that is not representative of the general population. The sample was taken from a university setting and includes undergraduate and graduate students, staff and faculty members. Participants are therefore likely to be better educated than the general population and their responses to the "Facts on Aging Quiz" may have been biased due to better test taking skills. Another potential limitation is the lack of a controlled environment for data collection. The researcher could not control the conditions under which the survey questionnaires are filled out and this makes the responses susceptible to extraneous factors. Finally, one of the instruments used in this study ("Old Age"

Questionnaire) was designed by the researcher and therefore researcher bias may have been a factor in both the construction of the questionnaire and interpretation of the results.

Definition of Terms

Attitudes are defined as beliefs about aging and the elderly which have an emotional component (Falk, 1997).

Bias is defined as prejudice, and can be positive or negative. Negative bias indicates an anti-aging attitude, positive bias indicates a pro-aging attitude (Palmore, 1998).

Expectations are defined as the anticipated circumstances of a participant's future, specifically oriented to late adulthood. Expectations include hopes, concerns, and fears regarding old age.

Knowledge is defined as the accuracy of responses to Palmore's Facts on Aging Quiz (1998).

Misconceptions are defined as inaccurate beliefs about aging or the elderly.

Self-fulfilling prophecy is defined as an expectation that leads to its own fulfillment (Jones, 1977).

Summary

Important demographic changes are occurring in American society. The elderly population is the fastest growing segment of society today and this phenomenon is leading to dramatic social, political, and economic changes. Unfortunately, knowledge levels about aging and the elderly are low and misconceptions are prevalent. Lack of knowledge and misconceptions about aging contribute to negative attitudes toward late adulthood and impact the social status, psychological well being, and health status of

older adults. Changes in how America views the aging process are taking place, however, and a more positive outlook is taking hold, indicating that the prevalent negative biases may be slowly diminishing. This study measured current knowledge levels about aging and identified common misconceptions. This study also identified the expectations participants have regarding the aging process, and investigated the relationship between participants' knowledge about aging and their expectations.

Chapter II

LITERATURE REVIEW

In this review of the current literature regarding perceptions of aging, several distinct categories are identified. Knowledge about aging, attitudes toward the elderly, and the sources of the prevalent attitudes are discussed. Studies which identify relationships between perceptions of aging and the social, physical, and psychological status of older adults are reviewed. Newly emerging paradigms for the aging process are examined and compared with the more traditional models of aging. Finally, research that has identified cultural influences on the expectations and related health issues of late adulthood is discussed.

Knowledge

A large body of research suggests that knowledge levels about aging and the elderly are low (Palmore, 1990) and that this finding holds true across all socioeconomic groups. Only those with specific gerontological education know significantly more than other groups (Kline & Kline, 1991). Slight differences are evident according to education levels, for example teenagers consistently score the lowest on knowledge measurements. But least one researcher suggests that any association between knowledge and general education levels is due to higher test taking abilities of better educated subjects (Palmore, 1998).

Palmore's "Facts on Aging Quiz" (1998) consists of 25 questions designed to measure knowledge about aging. Multiple versions exist for test-retest applications, and all of the versions are considered reliable and used in a variety of research settings. Scores on the true/false version of the Facts on Aging Quiz (FAQ) typically show a range of 50%

to 66% accuracy. For example, a survey of adolescents' knowledge about aging (Doka, 1986) showed that mean scores were 52%, or the same as random chance. Among undergraduate and graduate college students, scores for both groups were also low, "just barely above guessing" (Pulliam & Dancer, 1996, p. 66). Monk and Kaye (1982) surveyed a group of over 300 current and recently graduated students of religion and found that participants scored on average only 12.5% better than chance on Palmore's FAQ. Levy and West (1989) measured knowledge levels among clergy of various denominations and found that scores averaged 66%, with no difference associated with age. In Australia, Luszcz and Fitzgerald (1986) found no significant difference in knowledge between middle-aged respondents and either the oldest or youngest respondents, and scores averaged 66%. In a more recent study, O'Hanlon, Camp, & Osofsky, (1993) surveyed almost 400 college students ranging in age from 18 to 76 and found differences associated with age, but the age variable was not significant, accounting for only a 1 or 2 point difference in scores between the oldest and youngest students.

Attitudes

Misperceptions about aging are a contributing factor to negative attitudes toward older adults and increased knowledge of aging is predictive of more positive attitudes toward the elderly (Luszcz & Fitzgerald, 1986). Studies show a consistent negative bias in attitudes about aging and the elderly, which may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990). A meta-analysis, or review of a large number of related studies, of the research literature concerning attitudes about the elderly demonstrated that older people were consistently judged more negatively across all ratings dimensions, especially in the areas of physical

attractiveness and competence (Kite & Johnson, 1988). This negative bias is evident in all age groups, including children as young as six years old (Isaacs & Bearison, 1986), adolescents (Doka, 1986), college students (Slotterback & Saarnio, 1996), graduate students (Pulliam & Dancer, 1996), and even older adults themselves (West & Levy, 1981).

There is evidence that the negative biases associated with the elderly are largely automatic and these prejudices stem from unconscious cues (Perdue & Gurtman, 1990). Age labels such as "young" and "old" trigger stereotypical views when we process social information, and the concept "old" facilitates the processing of negative trait information while ignoring positive information. This occurs at a subconscious level and is therefore unintentional, yet it influences social judgments and attitudes. Researchers argue that these age related stereotypes are so entrenched within our culture that they may be extremely difficult to eradicate.

These negative biases often lead to discrimination against older persons in several areas, including employment (Erber & Danker, 1995; Quinn, 1995), and health care (O'Reilly, 1999). As early as 1968, the term "ageism" was coined in an attempt to heighten public awareness of these negative attitudes toward the elderly (Butler, 1999). Ageism was defined as the systematic stereotyping of and discrimination against people based on their age. Examples of discrimination can be found in a variety of settings. For example, in 1986, the U.S. Special Senate committee on Aging reported that 60% of employers agreed with the statement that older workers are discriminated against in the employment arena. Other studies have shown that health care professionals are prejudiced against older adults, and that many federal programs such as vocational

education services, the Food Stamp programs, and community mental health services all discriminate against the elderly in some ways (Quinn 1995).

Discrimination, prejudice, and the constant denigration of their status in society may imbue the elderly with a sense of hopelessness and helplessness that erodes their self-worth from within and contribute to decreased health and well being among older adults. A study done at the Johns Hopkins University School of Medicine found that many older adults attribute illnesses and functional decline to "old age," even though their problems often have clear physiological causes. The researchers contend that this faulty attribution often creates a reluctance in the older person to seek treatment, even though their conditions can often be effectively treated and minimized (Williamson & Fried, 1996).

There is also increasing evidence that suggests that pervasive negative stereotypes about aging actually contribute to the decreasing health status of the elderly (Levy & Langer, 1994). For example, memory decline in the elderly has been shown to be related to the cultural biases present in the United States. Memory abilities were compared among elderly participants in the U.S., mainland China, and in the American deaf community, considered to be a separate culture from mainstream America. The results showed that the Chinese and American deaf participants scored significantly higher in memory tasks. The Chinese and deaf participants had little in common other than "high esteem for their older members and an independence from mainstream American culture" (p. 996), and these findings suggest that the negative stereotypes associated with aging become self-fulfilling prophecies. Even worse, some scholars contend that the negative stereotyping prevalent in American culture is actually leading to increased suicides

among the elderly (Osgood, 1996). The common denigration of social status of older adults in American culture results in a loss of self-esteem and depression among the elderly. Eventually these psychological factors can lead to intense feelings of hopelessness, despair, and finally suicide.

Sources of bias

Statistics about the rapidly expanding elderly population add to concerns about the growing burden of an aging population on public health care systems and social services. These concerns contribute to negative bias against the elderly as a group (Falk, 1997), but many researchers suggest that negative attitudes toward the elderly are evidence of a much deeper problem. Scholars contend that America is an increasingly age-conscious (O'Reilly, 1999) and youth-oriented society (Friedan, 1997; Hajjar, 1997). American popular culture "overlooks the neglect, abuse, and ridicule of elders, and such attitudes are nonchalantly passed on to our younger generations" (Noor Al-Deen, 1997, p. 245).

Most adults recognize that positive functioning in later life is directly related to accepting changes that come with age (Ryff, 1989). However, noted author Betty Friedan has suggested that most people consider aging an illness and refuse to accept the changes associated with the aging process (1996), and that the prevalent views about aging are based on myth and denial.

> The mystique of age - the utter dread of programmed deterioration from youth to decay, decline, and pathology, defining age only as personal disease and problem for society - is most extreme in America. Our national denial and denigration of age has prevented us from viewing it as

> a new period of human life. Instead, growing old is an unspeakable, unthinkable, fate (p.182).

These themes of myth and denial are repeated by several other prominent scholars. For example, in the book Successful Aging (Rowe & Kahn, 1998), the authors contend:

> The topic of aging is durably encapsulated in a layer of myths in our society. And like most myths, the ones about aging include a conflicting blend of truth and fancy. Contrasting these myths with scientific fact leads to the conclusion that our society is on persistent denial of some important truths about aging (p.15).

From another perspective, a noted psychologist has diagnosed American culture as suffering from narcissism (Lasch, 1979). Lasch contends that American culture is defined by self-absorption, insecurity, and a reduced basis for making value judgments. An appreciation of the individual's role in society has been replaced by a restricted emphasis on personal status and self-image. This narrow focus on self interest, on "the self," has the result of creating a dread of aging associated with such superficial characteristics as deterioration of physical appearance and loss of the somewhat elusive quality of "potential." According to Lasch, any broader contexts for providing a sense of meaning and value to the aging process are absent in modern American society.

Popular culture has a significant influence on attitudes, and sources of bias within American culture include the entertainment media, advertising, and even the scientific community. Television is a major conveyor of mainstream American cultural values and plays a significant role in the socialization of its audience (Becker & Arnold, 1986; Davis & Davis, 1985). It has a powerful influence on the establishment of norms for evaluating

behavior, appearance and social worth in American society. Children are especially susceptible to the influence of television, since children in America ages 2 to 12 years spend an average of more than 25 hours viewing television each week on average (Gottlieb, 2000). These impressionable youngsters are often exposed to biased programming. For example, one study of Saturday morning cartoons found that 95% of the remarks made about aging were negative (Bishop & Krause, 1984). Commercial advertising via the media has also contributed to the negative biases toward the aged. In an analysis of images of aging in television commercials, Hajjar (1997) found that older actors in television programs tend to exhibit negative characteristics such as unattractiveness, weakness, failure, and dependency. Furthermore, Hajjar (1997) reported that "in 20 years of research, scholars have consistently found unfavorable images of aging in advertising" (p. 233).

Although television programs are not always legitimate sources of accurate information, even valid sources of scientific information may contribute to negative biases about aging and the elderly. Robert Butler (1999), a medical doctor and the first president of the National Institute on Aging (NIA), suggests that the scientific community has definitely contributed to negative stereotyping of the elderly. He points out that investigations of the elderly before the 1950s concentrated exclusively on chronically diseased populations. Butler suggests that "by overlooking the population of healthy aging persons, researchers unwittingly reinforced society's stereotype of all older persons as being frail, ill, and suffering from dementia" (p. 4).

A new paradigm known as "successful aging" is emerging as a popular framework for understanding the process of aging and promoting effective strategies for maintaining

health and vitality in the later years of life. The prevalent views concerning the aging process may be identified by exploring the attitudes expressed by popular culture. For example, the self-help industry produces a wide variety of material aimed at describing and improving the aging experience. A recent survey of the current self-help literature found that these can be divided into distinct models of aging (Darwin, 1997). The more traditional model, often described as the maintenance model, envisions the body as a machine and aging as the natural deterioration of the machine's parts. This model relies on biomedical science and technology to slow the inevitable decline and lessen the suffering associated with this decline, but in the end still promotes a negative bias by suggesting that aging is similar to disease - something to be fought against and overcome.

A second and more modern model, known as the vital aging model, is gaining popularity and emphasizes the social and psychological aspects of aging. In Fountain of Age, Freidan promotes this particular model, suggesting that complex social engagement, cognitive exertion, and decision making ability evidently "provide a crucial clue to longevity and vital aging" (1993, p. 81). This view is well supported by empirical research. For example, psychologist Ellen Langer (1989) performed several studies utilizing nursing home residents and found a significant correlation between decision making, or what she termed "mindfulness", and longevity. There is evidence that social support networks, both formal and informal, play a significant role in health as well (Klein & Bloom, 1997; Martire, Schiltz, et al., 1999; Simonsick, Kasper, & Phillips, 1998). A sense of efficacy and positive reinforcement have also been identified as contributors to health in later years. There is general agreement that older persons "who believe that they can produce changes have better physical and psychological health than

people who believe that nothing they do matters" (Fries, 1989, p. 51). This vital aging model is considered to be more facilitative and empowering by encouraging people to "reconsider what is ultimately most important about the experience of aging" (Darwin, 1997, p. 212).

Expectations

Researchers are beginning to recognize the roles that expectations play throughout a person's life. Expectations for the future establish a sense of personal continuity and also contribute to the motivation necessary in the present to bring about these future expectations (Roberts, 1992). In this way, considerations of the future can alter a person's present life-course and shape the future. Life span researchers are beginning to incorporate the concept of *possible selves* into their theories in order to better understand how expectations impact adult development (Cross & Markus, 1991). Possible selves are future oriented representations of a person's self-concept. They represent who we might be in the future and include both ideal and feared selves. Possible selves, or future selves, are "personalized images, conceptions, or senses of the self in the future" (p. 233). These personalized representations are considered useful psychological resources for negotiating the transitional phases of adult development. Future selves act as motivational and evaluative cues which can facilitate adaptation to the changing roles and statuses of a person's life. They represent both feared and hoped for expectations of later life.

Studies show that most adults place an emphasis on being a person with positive personal qualities and having good relationships as a basis for psychological well-being (Ryff, 1989; Roberts, 1992). When people ranging in age from 19 to 83 were asked about their hopes and fears about the future, researchers found that 70% indicated that

personality characteristics were the most significant issue, with physical health the second most identified factor (Roberts, 1992). Openness to experience, a sense of humor, and spunk were the most common hopes. Analysis revealed that older participants stressed autonomy issues more than younger participants, and that younger adults were more concerned about personality and mental health than older adults, but in general the majority of hopes and fears about the future were based on personality characteristics rather than physical health.

In a study of over 700 older adults aged 65 to 90, future goals fell into distinct categories (LaPierrre, Boufard, & Bastin, 1997). Many participants reported goals which centered on self development and an interest in the well-being of others. These participants also reported a greater satisfaction with life, a sense of meaning and purpose in their lives, and positive expectations for the future. Other participants reported concerns centered on health status, and those participants also reported a lack of meaning in their lives and negative expectations for the future. Health and personality issues were central concerns for the majority of participants when asked about the future, but concerns for the well being of others and a desire to maintain loving relationships differentiated those participants who were happy with their lives.

In contrast, an earlier study of adolescents revealed that their concerns about aging centered on death and physical decline and very few adolescents identified any hopes for old age (Doka, 1986). Adolescents reported that their biggest fears about aging were the fear of death, mental or physical disability, dependence, and victimization. When asked to identify what they looked forward to about aging, only 20% identified situations associated with later years, such as retirement or grand-parenthood. These same

adolescents scored very low on Palmore's "Facts on Aging" Quiz and so their concerns and expectations about the aging process were possibly influenced by a lack of knowledge about aging.

These studies suggest that knowledge about aging may be a significant factor in the formation of expectations and concerns about late adulthood. Misperceptions about the health and well-being of older adults can have a negative influence on expectations for the future. Negative expectations may lead to an exaggerated emphasis on health concerns and even lead to self-fulfilling prophecies of decreasing health status and life satisfaction. The type of hopes and concerns people have about old age play a part in shaping the circumstances of their actual later years. Accurate perceptions of aging may have a critical role in forming the realistic expectations and goals associated with successful aging.

Summary

The newly emerging models of aging promote knowledge about the aging process and reinterpret the important factors of aging. As gerontological research continues to focus on these "successful" or "vital" aging paradigms, it seems likely that a more accurate understanding of the facts will improve the prevalent attitudes about the aging process in general and also lead to improved well-being among the elderly in a number of ways. The social and psychological aspects of aging are important considerations and clearly influence health status and levels of life satisfaction among older adults. Feelings of efficacy and competence among the elderly are directly linked to health and well-being (LaPierrre, Boufard, & Bastin, 1997; Fries, 1989), while negative attitudes about the elderly and the aging process are associated with lowered health status, loss of self-worth

and even suicide (Levy & Langer, 1994; Osgood, 1995). Concern for others and a desire to maintain loving relationships are directly linked to a sense of meaning and satisfaction with life (Ryff, 1989; Roberts, 1992), while concerns focused on health-preservation are associated with lower life satisfaction (LaPierrre, Boufard, & Bastin, 1997). Clearly, the influence of popular culture has led to an emphasis on the negative aspects of aging, the physical and mental decline, the loss of autonomy and respect associated with old age (Langer, 1989; Friedan, 1997; Hajjar, 1997), and negative attitudes are often the result of a lack of knowledge about aging (Falk 1997; Palmore, 1990). Newer models of aging focus on the positive aspects of late adulthood and emphasize the significance of social and psychological factors that directly influence a person's sense of well being (Klein & Bloom, 1997; Rowe & Kahn, 1998). The research in support of these new models show that positive orientations to the aging process can improve health and well being. It remains to be seen, however, how well these positive orientations are being adopted by the general public. And even more importantly, whether the expectations about late adulthood are related to knowledge about aging. This study investigated the relationship between personal expectations about old age and knowledge about aging in an attempt to bridge this gap in our understanding.

CHAPTER III

METHODOLOGY

This study was designed to explore knowledge levels about aging and personal expectations of impending old age. The purpose of this study was to examine how adults anticipate their later years and compare those expectations with knowledge about aging. Common misperceptions about the aging process, expectations regarding late adulthood, and the dimensions of old age that are considered important among the participants were identified.

This study fills a gap in current gerontological research by investigating the links between what people know about aging and what they anticipate will be the significant issues of their own later years. Many studies have shown that erroneous beliefs about aging have a significant impact on attitudes toward aging and the elderly. Additionally, research shows clear links between the prevalence of negative attitudes toward the elderly and lowered expectations of health and well-being among the elderly. Low expectations often translate into actual decreased health status among older adults. However, little is known about how knowledge levels about aging impact personal expectations of late adulthood among young and middle-aged adults.

Research design

This exploratory study was designed to investigate knowledge levels about aging and personal expectations of impending old age. The purpose of this study was to examine how adults envision their later years and compare those expectations with knowledge about aging. Common misconceptions about the aging process, expectations

regarding late adulthood, and the dimensions of old age that are considered important among the participants were identified.

Sample

The participants in this study constituted a convenience sample and consisted of students, staff, and faculty at Oklahoma State University. The inclusion of these three groups was intended to provide a broad range of ages and education levels. The sampling frame for staff and faculty consisted of a campus wide database maintained by the Institutional Research Office. Faculty and staff participants were recruited from a random list of 300 faculty and staff members via campus mailings and each participant was provided with a return envelope along with the questionnaire packet. Each potential participant was contacted only once. Completed questionnaires were returned to the researcher via office mail. The questionnaire was printed and bound in booklet format. The questionnaire packets also included an introductory letter consisting of a short description of the study and an appeal for participation (Appendix A). The letter also described the methods whereby confidentiality and anonymity of the participants would be maintained.

Students were recruited by direct appeals during normal class periods. Students were sampled based on availability, depending on permission from various instructors, although efforts were made to include a variety of academic majors and undergraduate and graduate students. The researcher arranged to visit several course classrooms during regular class periods at the convenience of the instructors. Courses included one graduate level human resource course, one undergraduate electrical engineering course, and one undergraduate statistics course. Disruption of normal class procedure was held to a

minimum. The researcher verbally presented a short description of the study and also provided a solicitation letter with the questionnaires. These were distributed to willing participants and then collected either during the same class period or, in the case of one undergraduate statistics course, the following period.

Out of 395 potential participants, a total sample of 183 respondents participated in this study, representing a 46% overall response rate. A response rate of 40% (n=120) was achieved among faculty and staff via campus mailings, and a response rate of 66% (n=63) was achieved among graduate and undergraduate students.

Instrumentation

Instrumentation in this study consisted of a three-part self-administered questionnaire in booklet format, along with a solicitation letter (Appendices A & B). Participants received a printed copy of the questionnaire booklet which contained a short demographic questionnaire, Palmore's "Facts on Aging Quiz" (FAQ) and a multiple-choice researcher developed sentence-completion questionnaire ("Old Age" Questionnaire) concerning expectations for late adulthood.

Demographic Questionnaire

The demographic section asked four general questions regarding the age, gender, education level of the participant. Participants were also asked to identify their academic major or department.

Palmore's "Facts on Aging Quiz"

Palmore's second edition of his Facts on Aging Quiz (1998) consists of 25 multiple-choice questions covering various aspects of aging and the elderly. This quiz is short and its validity is well documented as a measure of general knowledge about aging.

Also, as Palmore recommends in both editions of the Facts on Aging Quiz (FAQ), a "don't know" response option was added to each question, so that a distinction between misconceptions and ignorance could be identified. According to Courtenay and Weidemann (1985), using the "don't know" response option increases the internal reliability scores of the quiz (Cronbach's Alpha) to .60.

Correct responses to the FAQ were operationalized as knowledge levels about aging. Incorrect responses to the FAQ were operationalized as misconceptions about aging.

"Old Age" Questionnaire

The researcher developed sentence-completion section of the questionnaire consisted of three questions. The first two questions were multiple choice and similar to the questions found in the "Motivational Induction Method" questionnaire (LaPierrre, Boufard, & Bastin, 1997) , which consists of 23 sentence beginnings used to sample the motivational goals of the participants. For this study the researcher constructed a unique set of incomplete sentences focused on late adulthood. These questions allowed the participants to identify the nature of their personal expectations of old age by ranking their responses to sentences such as "My greatest hopes concerning old age relate to …". A broad selection of response options are included based on previous studies (LaPierrre, Boufard, & Bastin, 1997; Roberts, 1992), and participants were directed to rank the three most appropriate responses to each question in order of importance. Responses were organized into various categories, such as health, personality, security, and social concerns. Additionally, participants were asked to complete the following open-ended

sentence: "I will begin to think of myself as old when I..." This question helped identify the way in which participants conceive of old age.

Statistical Procedures

Data analysis consisted of various measurements, including simple descriptive statistics, correlational measures, and significance tests. Where appropriate, ratio level variables were recoded into new ordinal variables consisting of ranked groups to accommodate statistical analyses. For example, FAQ responses were scored and those scores represented a ratio level variable. These scores were also recoded into a new ordinal variable of four ranked groups, each representing around 25% of the total scores. The same recoding was performed for the age variable. Thus score and age variables could be compared using ratio level significance tests, and score and age rankings were measured and analyzed using ordinal level analyses.

Frequencies of incorrect responses were measured for identification of common misconceptions, and these were analyzed according to the demographic variables. Responses to the "Old Age" questionnaire were analyzed using descriptive statistics. These responses were sorted for thematic content, analyzed according to demographic variables, FAQ scores, and the common misconceptions identified earlier.

Summary

This study was designed to measure knowledge about aging and reveal personal concerns and expectations oriented toward late adulthood. Participants included undergraduate students, graduate students, university staff and faculty. Palmore's "Facts on Aging Quiz" was used to measure knowledge about aging and identify the common misperceptions of aging. A multiple-choice sentence-completion questionnaire ("Old

Age" Questionnaire) designed by the researcher was used to collect data regarding expectations for late adulthood. Participants were asked to identify their expectations regarding old age and which of the various factors associated with aging they currently consider important. Quantitative analyses were utilized to determine knowledge levels among the participants and the most common misperceptions about aging. Additionally, relationships between age, education level and knowledge were evaluated. Qualitative analyses were utilized to analyze the expectations reported by the participants. Finally, the data were examined in order to assess the relationship between knowledge about aging and expectations for old age.

Chapter IV

Knowledge about aging and expectations for late adulthood

Manuscript for Publication

Journal Title: Journal of Aging and Identity

Abstract

This exploratory study investigated knowledge levels about aging and personal expectations of impending old age. The purpose of this study was to examine how adults envision their later years and compare those expectations with knowledge about aging as measured by Palmore's Facts on Aging Quiz. Common misconceptions about the aging process, expectations regarding late adulthood, and knowledge levels were measured.

A total of 395 surveys were distributed. From this initial group, a total sample of 183 respondents participated in this study, representing a 46% overall response rate. A response rate of 40% (n=121) was achieved among faculty and staff via campus mailings, and a response rate of 66% (n=62) was achieved among graduate and undergraduate students.

Scores on Palmore's Facts on Aging Quiz (FAQ) were generally low, an average of 39% of the questions were answered accurately. Several misconceptions about aging and the elderly were identified. The results of this study showed that the three most often cited hopes were identical to the three most often cited fears concerning old age. They included physical health, mental health, and independence.

Key Words: Knowledge about Aging, Beliefs about Aging, Misconceptions about Aging, Expectations for Late Adulthood, Attitudes and Aging. Palmore's Facts on Aging Quiz

Introduction

The growing social, political, and economic strength of older adults contradicts the common beliefs about America's elderly population (Palmore, 1998; Dychtwald, 1989). For example, in his book The Age Wave, Dychtwald (1989) predicts that the elderly will soon become "the demographic group that sets the political agenda and dominates election outcomes" (p. 63). The elderly also have substantial economic power as well. For example, although the elderly currently represent less than 13% of the population, it is estimated that their savings account for over 80% of the nation's total personal savings, and the elderly control over 60% of the nation's personal banking dollars (Vierck, 1990). Additionally, national poverty trends show that while the poverty rate among American children rose from 14% in 1960 to around 20% in 1991, the poverty rate among seniors dropped from 35% to 12% during the same time frame (D'Antonio, 1996).

It is difficult to reconcile these descriptions of an economically powerful group that will soon dominate the American political agenda with beliefs such as "most elderly are frail, ill, and suffering from dementia" (Butler, 1999, p. 4). There seems to be a vast disparity between the facts concerning aging and the elderly and our commonly held beliefs. This is a significant issue, since beliefs influence attitudes and actions on a cultural level as well as a personal level (LaRossa & Reitzes, 1993). It is therefore useful to distinguish between what we believe and what we know. Knowledge about aging can be defined as the accuracy of our beliefs about aging, and research shows that knowledge about aging is not keeping pace with the dramatic changes occurring among America's older adults (Rowe & Kahn, 1998). These trends indicate an increasing need for research

into the nature of our beliefs about aging and the impact these beliefs have on our society as the social balance gradually shifts toward a "graying" America.

Problem Statement

It is widely accepted that negative attitudes and inaccurate beliefs about the elderly are common (Palmore, 1998), that the sources for these biases are ubiquitous and may even be automatic (Perdue & Gurtman, 1990), and that myths about the aging process stem partly from a denial of aging (Freidan, 1993). It remains unclear, however, what relationship these erroneous views have with the expectations of adults concerning their own later years. Potentially, our own beliefs about aging can have a significant impact on our later years. Just as negative attitudes about the elderly have been linked to decreased health status (Levy & Langer, 1994) and even suicide among the elderly (Osgood, 1995), the misconceptions we have about old age may create self-fulfilling prophecies that ultimately lead to decreased well-being and health status in our own later years. Unfortunately, there is a paucity of research into the connection between knowledge about aging and personal expectations about aging. If it is true that "the majority of Americans believe that most aged are senile, impotent, useless, lonely, miserable, and in poverty" (Palmore, 1998, p. 8), then it is useful to examine whether stereotypical views such as these relate to the expectations of people about their own impending experiences of old age. Considering the changing attitudes about the aging process and the emergence of new models such as the successful aging paradigm (Rowe & Kahn, 1996), it will be helpful to address the following questions: What do people actually know about aging, and what are the common misconceptions? What are the predominant personal expectations regarding old age among people today? Finally, is

there a relationship between expectations and the accuracy of people's beliefs about aging?

There is little information in the current research literature about how erroneous beliefs such as that most elderly are frail and ill (Butler, 1999) relate to people's concerns that they themselves will be frail and ill in later years. The purpose of this study was to examine whether a relationship exists between knowledge about aging and our expectations of late adulthood.

Theoretical Framework

Symbolic Interactionism

Symbolic interactionism is a theoretical framework which focuses on the interpretation of symbols and the shared meanings which orient our social interactions and define our self perceptions (Klein & White, 1996). A central tenet of this framework is that social interaction in human society is occurs primarily on the symbolic level. Symbols, in the form of objects or gestures, facilitate social interactions by signifying socially defined meanings. Symbolic interactionism contends that the feedback acquired through interaction with others contributes to social and personal development, and that this process of socialization leads to the formation of a person's self concept (LaRossa & Reitzes, 1993). A person is "reflexively adaptive" to social interaction. Further, a person's self concept is based on this process of social adaptation. A person's self concept therefore constitutes a dynamic set of roles which are continually redefined throughout a lifetime.

Another important concept of symbolic interactionism is the "definition of the situation." Based on the classic psycho-social dictum that, " What humans define as real

are real in their consequences" (Thomas & Thomas, 1928, p. 576), the definition of the situation refers to the connection between perception of the environment and the behavior associated with those perceptions.

Labeling Theory

Labeling theory stems from Symbolic interactionism and is an important factor in this study (Jenkins, 1996). Labeling theory further reinforces the link between perception and behavior and helps describe the influence that beliefs about aging have on the elderly. Labeling theory suggests that once individuals are categorized as old, social expectations based on stereotypical definitions of "old" begin to influence social interaction. The negative connotations of "old" lead to negative expectations, and these expectations often create self-fulfilling prophecies leading to behavior, on the part of the "old" person, which confirms the initial negative expectations. In this way, labeling and the related social expectations define the situation.

Based on symbolic interactionism and its associated theories, certain assumptions can be made about the relationships between beliefs and expectations. These theoretical relationships between knowledge about aging, expectations for late adulthood, and various demographic variables are described in Figure 1.

Insert Figure 1

Review of Literature

Knowledge and Expectations for Late Adulthood

Knowledge

It is important to distinguish between beliefs about aging and actual knowledge. Many beliefs about aging are inaccurate and based on misconceptions. It is therefore useful to examine knowledge levels, which help determine the accuracy of beliefs about aging. A large body of research suggests that knowledge levels about aging and the elderly are low (Palmore, 1990) and that this finding holds true across all socioeconomic groups. Only those with specific gerontological education know significantly more than other groups (Kline & Kline, 1991). In Palmore's (1998) summary of over 150 studies using his "Facts on Aging Quiz" survey questionnaire, he states that "the overall and most disturbing general finding is that most people know little about aging and have many misconceptions" (p. 43). And possibly more importantly, these misconceptions are negatively biased (Kite & Johnson, 1988).

Misconceptions

Knowledge about aging has two important influences on attitudes toward the elderly. First, misconceptions about aging are a contributing factor to negative attitudes toward older adults. Second, increased knowledge of aging is predictive of more positive attitudes toward the elderly (Luszcz & Fitzgerald, 1996). Studies show a consistent negative bias in attitudes about aging and the elderly, which may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990). A meta-analysis of the research literature concerning attitudes about the elderly demonstrated that older people were consistently judged more negatively across

all ratings dimensions, especially in the areas of physical attractiveness and competence (Kite & Johnson, 1988).

Research shows that the beliefs about aging that older adults hold may impact critical areas of late adulthood, including social status, health, and mental well-being (Levy & Langer, 1994; Osgood, 1995). Stereotypical misconceptions and lack of knowledge about aging often lead to unfortunate self-fulfilling prophecies among older adults resulting in poor health status and isolation (Fries, 1989). For example, there is evidence that the negative self-perceptions of elderly adults concerning old age result in a reluctance to seek health care for treatable conditions (Williamson & Fried, 1996). There is also increasing evidence that suggests that pervasive negative stereotypes about aging actually contribute to the decreasing health status of the elderly. For example, memory decline in the elderly has been shown to be related to the cultural biases present in the United States (Levy & Langer, 1994). Memory abilities were compared among elderly participants in the U.S., mainland China, and in the American deaf community, considered a separate culture from mainstream America. The results showed that the Chinese and American deaf participants scored significantly higher in memory tasks. The Chinese and deaf participants had little in common other than "high esteem for their older members and an independence from mainstream American culture" (p. 996). These findings suggest that negative stereotypes associated with aging can become self-fulfilling prophecies.

Sources of Bias

Popular culture has a significant influence on beliefs about aging, and sources of bias within American culture include the entertainment media, advertising, and even the

scientific community. Television is a major conveyor of mainstream American cultural values and plays a significant role in the socialization of its audience (Becker & Arnold, 1986; Davis & Davis, 1985). It has a powerful influence on the establishment of norms for evaluating behavior, appearance and social worth in American society. Children are especially susceptible to the influence of television, since children in America ages 2 to 12 years spend an average of more than 25 hours viewing television each week on average (Gottlieb, 2000). These impressionable youngsters are often exposed to biased programming. For example, one study of Saturday morning cartoons identified 20 separate references to aging or the elderly and found that 95% of the remarks were negative (Bishop & Krause, 1984). Commercial advertising via the media has also contributed to the negative biases toward the aged. In an analysis of images of aging in television commercials, Hajjar (1997) found that older actors in television programs tend to exhibit negative characteristics such as unattractiveness, weakness, failure, and dependency. Furthermore, Hajjar (1997) reported that "in 20 years of research, scholars have consistently found unfavorable images of aging in advertising" (p. 233).

Although television programs are not always legitimate sources of accurate information, even valid sources of scientific information may contribute to negative biases about aging and the elderly. Robert Butler (1999), a medical doctor and the first president of the National Institute on Aging (NIA), suggests that the scientific community has definitely contributed to negative stereotyping of the elderly. He points out that investigations of the elderly before the 1950s concentrated exclusively on chronically diseased populations. Butler suggests that "by overlooking the population of healthy

aging persons, researchers unwittingly reinforced society's stereotype of all older persons as being frail, ill, and suffering from dementia" (1999, p. 4).

Expectations

There is a growing recognition among researchers of the roles that expectations play throughout a person's life. Expectations for the future establish a sense of personal continuity and also contribute to the motivation necessary in the present to bring about these future expectations (Roberts, 1992). In this way, considerations of the future can alter a person's present life-course and shape the future. Life span researchers are beginning to incorporate the concept of *possible selves* into their theories in order to better understand how expectations impact adult development (Markus & Nurius, 1986; Cross & Markus, 1991). Possible selves are future oriented representations of a person's self-concept. They represent who we might be in the future and include both ideal and feared selves. Possible selves, or future selves, are "personalized images, conceptions, or senses of the self in the future" (Cross & Markus, 1991, p. 233). These personalized representations are considered useful psychological resources for negotiating the transitional phases of adult development. Future selves act as motivational and evaluative cues which can facilitate adaptation to the changing roles and statuses of a person's life. They represent both feared and hoped for expectations of later life.

Studies show that most adults place an emphasis on being a person with positive personal qualities and having good relationships as a basis for psychological well-being (Ryff, 1989; Roberts, 1992). When people ranging in age from 19 to 83 were asked about their hopes and fears about the future, researchers found that 70% indicated that personality characteristics were the most significant issue, with physical health the second

most identified factor (Roberts, 1992). Openness to experience, a sense of humor, and spunk were the most common hopes. Analysis revealed that older participants stressed autonomy issues more than younger participants, and that younger adults were more concerned about personality and mental health than older adults, but in general the majority of hopes and fears about the future were based on personality characteristics rather than physical health.

Hopes about the future can also be investigated by evaluating future goals. In a study of over 700 older adults aged 65 to 90, future goals fell into distinct categories (LaPierrre, Boufard, & Bastin, 1997). Many participants reported goals which centered on self development and an interest in the well-being of others. These participants also reported a greater satisfaction with life, a sense of meaning and purpose in their lives, and positive expectations for the future. Other participants reported concerns centered on health status, and those participants also reported a lack of meaning in their lives and negative expectations for the future. Health and personality issues were central concerns for the majority of participants when asked about the future, but concerns for the well being of others and a desire to maintain loving relationships differentiated those participants who were happy with their lives.

In contrast, an earlier study of adolescents revealed that their concerns about aging centered on death and physical decline and very few adolescents identified any hopes for old age (Doka, 1986). Adolescents reported that their biggest fears about aging were the fear of death, mental or physical disability, dependence, and victimization. When asked to identify what they looked forward to about aging, only 20% identified situations associated with later years, such as retirement or grand-parenthood.

These findings suggest that there may be differences in expectations between young and old people. Obviously, older adults have significantly more experience with the aging process and experience tends to shape expectations. However, it is unclear whether experience translates into knowledge.

Knowledge about aging may be a significant factor in the formation of expectations and concerns about late adulthood. Misconceptions about the health and well-being of older adults can have a negative influence on expectations for the future. Negative expectations may lead to an exaggerated emphasis on health concerns and even lead to self-fulfilling prophecies of decreasing health status and life satisfaction. Symbolic interactionism and labeling theory suggest that the type of hopes and concerns people have about old age play a part in shaping the circumstances of their actual later years. Accurate perceptions of aging may have a critical role in forming the realistic expectations and goals associated with successful aging.

Questions Addressed

There are few studies that examine whether the prevalent beliefs about aging and the elderly are reliable indicators of how young and middle aged adults anticipate their own later years. Among older adults, inaccurate beliefs and negative attitudes about aging can lead to expectations that have been shown to negatively influence their social status, health status, and psychological well-being. Whether beliefs about aging relate to the expectations young and middle-aged adults have about their future status has remained largely unexamined. It is the long-range future oriented nature of these expectations and their relationship to current beliefs about aging that this study addressed.

This exploratory study focused on several measurements of interest. Specifically, this study addressed the following questions:

1. What were the current knowledge levels about aging among the sample? The study provided a measure of how much the respondents actually know about aging.

2. What were the most common misconceptions about aging? The study identified some of the inaccurate beliefs people hold about aging.

3. What were the predominant expectations concerning late adulthood? The study identified the issues people consider important as they anticipate their impending old age.

4. Finally, were knowledge levels and misconceptions associated with the reported expectations for late adulthood? This was the central question of the study and represented the focus of this researcher's thesis.

Methods

Research Design

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Correct responses to the FAQ were operationalized as knowledge levels about aging. Incorrect responses to the FAQ were operationalized as misconceptions about aging.

"Old Age" Questionnaire

The researcher developed sentence-completion section of the questionnaire consisted of three questions. The first two questions were multiple choice and similar to the questions found in the "Motivational Induction Method" questionnaire (LaPierrre, Boufard, & Bastin, 1997), which consists of 23 sentence beginnings used to sample the motivational goals of the participants. For this study the researcher constructed a unique set of incomplete sentences focused on late adulthood. These questions allowed the participants to identify the nature of their personal expectations of old age by ranking their responses to sentences such as "My greatest hopes concerning old age relate to ...". A broad selection of response options are included based on previous studies (LaPierrre, Boufard, & Bastin, 1997; Roberts, 1992), and participants were directed to rank the three most appropriate responses to each question in order of importance. Responses were organized into various categories, such as health, personality, security, and social concerns. Additionally, participants were asked to complete the following open-ended sentence: "I will begin to think of myself as old when I..." This question helped identify the way in which participants conceive of old age.

Statistical Procedures

Data analysis consisted of various measurements, including simple descriptive statistics, correlational measures, measures of association, and significance tests. Where appropriate, ratio level variables were recoded into new ordinal variables consisting of

ranked groups to accommodate statistical analyses. For example, FAQ responses were scored and those scores represented a ratio level variable. These scores were also recoded into a new ordinal variable of four ranked groups, each representing around 25% of the total scores. The same recoding was performed for the age variable. Thus, score and age variables could be compared using ratio level significance tests, and score and age rankings were measured and analyzed using ordinal level analyses.

Frequencies of incorrect responses were measured for identification of common misconceptions, and these were analyzed according to the demographic variables. Responses to the "Old Age" questionnaire were analyzed using descriptive statistics. These responses were sorted for thematic content, analyzed according to demographic variables, FAQ scores, and the common misconceptions identified earlier.

Results

A total of 183 respondents participated in the study. Ages ranged from 19 to 73 years, and the mean age was 39.9 years (see Table 1). Fifty-five percent of respondents were female. Education levels ranged from completion of high school to doctoral degrees. The highest number of respondents (28.4%) had some college education and 25% had doctoral level degrees. Departments and majors included 80 unique responses and were recoded into eight major categories corresponding to the associated university colleges.

Insert Table 1

Knowledge

Scores on Palmore's Facts on Aging Quiz (FAQ) ranged from no correct responses to 72% correct. The mean score for the sample was 39%. Scores were measured against all demographic variables using measures of association and statistical significance tests (see Table 2). Analyses found no significant associations between FAQ scores and age, gender, education level, or academic department variables.

Insert Table 2

Misconceptions

Analyses of responses to specific questions revealed both a high degree of accuracy among the respondents about aging, as well as a wide range of misconceptions. The majority of respondents accurately responded to questions concerning learning abilities, reaction times, sexual behavior, work efficacy, and happiness among the elderly. Two areas of overwhelming accuracy included questions about employment and physical strength in late adulthood. Over 75% of respondents correctly indicated that most old people work in some capacity, or would like to do some kind of work. Eighty three percent of respondents correctly indicated that physical strength tends to decline with old age.

Misconceptions about aging were operationalized as any FAQ questions in which close to a majority of respondents answered incorrectly. Misconceptions were prevalent in areas concerning senility, declining senses, long-term institutionalization, accident

rates, adaptability, population size, religiosity, and poverty rates among the elderly (Table 3).

Insert Table 3

Responses to the first two FAQ questions indicated overly optimistic beliefs about aging. While not a clear majority, 42% of the respondents underestimated the proportion of people over 65 with some type dementia or memory impairment as being 1 in 100. The proportion is actually 1 in 10. Similarly, over 52% of respondents indicated that only sight and hearing tend to weaken in old age, although the correct answer was that all five senses tend to decline.

Another point of interest is the percentage of respondents who indicated that they didn't know the correct response to FAQ question 1. Almost one third of the respondents selected the "Don't Know" response (see Table 3).

Several negative misconceptions were also identified. A majority of respondents (53%) overestimated the percentage of people over 65 in long-term institutions, indicating between 10% and 50%. The actual percentage of people over 65 in long-term institutions is only 5%.

A majority of respondents (57%) overestimated the auto accident rate among older adults, indicating that the auto accident rate among drivers over 65 was equal to (19.8%) or higher (37.4%) than those under 65. The accident rate among those over 65 is actually lower than for adults under age 65.

A majority of respondents underestimated the adaptability of older adults. Almost 54% of respondents indicated that adaptability to change among people over 65 is present in only one-half or less. Studies show that adaptability is present in most (Palmore, 1999).

A majority (61%) of respondents overestimated the proportion of the U.S. population now age 65 or over. None of the respondents underestimated the proportion. Thirty five percent of respondents indicated 23%, and 25% of respondents indicated 33% of the population was 65 or over. Only 15.8% of the respondents accurately indicated that 13% is the correct proportion of the population 65 or over.

A majority of respondents (53.3%) overestimated the poverty rate among old people, indicating that it is greater than or equal to the poverty rate for people under 65. The poverty rate among people over 65 is actually less than for those under 65, including children. Another point of interest is the large percentage of respondents who indicated that they didn't know the correct response to this question (FAQ question 21). One third of the respondents selected the "Don't Know" response (see Table 3).

A final misconception concerned religion. Roughly half of respondents (49.5%) incorrectly indicated that religiosity increases with age. Research shows that religiosity is simply more prevalent among older generations (Palmore, 1998).

Analyses revealed interesting differences in responses to two FAQ questions in relation to the respondents' ages. One difference was found when comparing respondents' ages and responses to FAQ question 7, concerning the percentage of people over 65 in long-stay institutions. Cross-tabulation (see Table 4) showed that the youngest respondents were twice as likely to overestimate percentage of people over 65 in long-stay institutions as the oldest respondents. Almost 78% of the youngest respondents (19-

36 years) overestimated the percentage, compared with only 37.5% of the oldest respondents (54-73 years). Another interesting difference involved the percentage of respondents who indicated that they didn't know the correct response. Only 11% of the youngest respondents chose the "Don't Know" option, compared to 40% of the oldest respondents.

Insert Table 4

Another difference was found when examining respondents' ages and responses to FAQ question 11, concerning adaptability among people over 65. Cross-tabulations revealed that older respondents were much more likely to answer correctly than the youngest respondents. The majority of respondents (53.1%) age 54 or older correctly indicated that adaptability to change was present in most people over 65. Among the youngest respondents (19-36 years), however, the majority (69.5%) indicated that adaptability was rare (see Table 5).

Insert Table 5

Expectations - Hopes & Fears

When respondents ranked their top three fears and top three hopes, the three most often cited hopes were identical to the three most often cited fears concerning old age (Tables 6 & 7). Ninety one percent of respondents indicated that a decline in physical

health was one of their top three fears (see Table 6), followed by a decline in mental health (76%), and loss of independence (64.3 %). Similarly, 77.1% of respondents indicated that maintaining or improving their physical health was one of their top three hopes (see Table 7), followed by maintaining or improving their mental health (56.8%), and maintaining their independence and self-sufficiency (46.2%).

Insert Table 6

When respondents were asked to identify their single greatest hope regarding old age, the frequencies showed a similar ranking, 24.6% indicated that maintaining or improving their physical health was their greatest hope, 19.9% indicated mental health, and 13.5% indicated independence and self-sufficiency. When asked to identify their single greatest fear regarding old age, however, more respondents indicated a decline in mental health (36.7%) than a decline in physical health (30.1%). Additionally, cumulative percentages show that declines in physical health, mental health, and independence account for 86.1% of total responses regarding respondents single greatest fear. However, maintaining or improving physical health, mental health, and independence account for only 57.9% of total responses regarding respondents single greatest hope.

Insert Table 7

Analyses showed that respondents single greatest fears and single greatest hopes were closely related (lambda = .471, $p < .05$). Cross-tabulations showed that 85% of respondents who indicated that maintaining or improving their physical health was their greatest hope also indicated that a decline in their physical health was their greatest fear (see Table 8). One hundred percent of those who indicated that maintaining or improving their mental health was their greatest hope also indicated that declining mental health was their greatest fear. Finally, 69.6% of those who indicated that maintaining or improving their independence was their greatest hope also indicated that loss of their independence was their greatest fear.

Insert Table 8

Differences were found among respondents' greatest hopes according to the demographic variable of gender (see Table 9). Cross-tabulations showed that males were over three times as likely to indicate that their greatest hope was the maintenance or improvement of their mental health. Almost 34% of male respondents indicated that their greatest hope involved mental health, while only 10% of female respondents indicated that their greatest hope involved mental health.

Insert Table 9

Also, Table 7 shows that 15 respondents indicated that their greatest hope involved improving or maintaining financial resources. While not one of the top three hopes, it is interesting to note that 80% of those respondents were female. Only three male respondents indicated that their greatest hope involved improving or maintaining financial resources.

Expectations -Onset of Old Age

Responses to the survey question regarding the onset of old age were coded into eight distinct categories (Table 10). When respondents were asked to complete the sentence "I'll begin to think of myself as old when I...," the most commonly identified issue was self-sufficiency (17.8%), followed by responses indicating that old age is a state of mind (17.2%), and health related activity limitations (16%).

Insert Table 10

Self-sufficiency

Responses involving self-sufficiency were usually stated as "can no longer take care of myself" or "begin to lose my independence due to physical decline." It is interesting to note that females were almost four times more likely to indicate that declines in self-sufficiency marked the onset of old age than male respondents. Over 26% of female respondents indicated that declines in self-sufficiency marked the onset of old age, compared with only 7.0% of male respondents (see Table 11). Of the 29 total

respondents who indicated that declines in self-sufficiency marked the onset of old age, 82.8% were female.

Insert Table 11

State of mind

Responses involving state of mind included a variety of statements such as "when I die" or "when I have time," and also more specific statements such as "hopefully never, I think old age is a state of mind." As in the last example, many respondents clearly stated that old age is a state of mind. Others suggested that they already think of themselves as old. All responses that indicated a frame of mind independent of other factors were coded into this category.

Activity limitations

Responses involving health related activity limitations included statements such as "when I can no longer remain as physically active as I am now" or "when I begin to have difficulty in participating in the activities I enjoy." Others included references to specific past-times such as mountain climbing or traveling.

Personal markers

Responses identifying non-health related personal markers accounted for 14.1% of total responses. These personal markers included significant milestones or events such as retirement or reaching specific chronological ages.

General functioning

Responses related to general functioning such as "when I begin to feel physically tired" or "when I'm not able to function physically or mentally" accounted for 12.3% of total responses. These responses indicated physical or mental declines without any specific ramification or limitation and were therefore coded separately from health-related loss of self-sufficiency or activity limitations.

External markers

Environmental, or external, markers accounted for 9.2% of total responses. These included significant events such as becoming a grandparent or the loss of contemporaries. Other similar responses involved grandchildren reaching adulthood or graduating college, and events such as "overhear someone refer to me as an 'old fart'".

Loss of hope or interest

Finally, psychological attitudes involving loss of hope or interest (7.4%) included responses such as "when I lose hope" or "when I lose interest in life", and responses involving learning and contribution to society, such as "when I stop learning new things" or "when I feel that can no longer contribute" accounted for the remaining 6.1% of total responses.

Relationship between knowledge and expectations

Measures of association revealed extremely weak associations between knowledge about old age and survey responses concerning fears and hopes for late adulthood, or responses concerning the onset of old age (see Table 12). The cross-tabulations for FAQ scores and the three greatest fears are shown in Table 12. No significant differences were found among FAQ scores relating to fears for the future.

Insert Table 12

The cross-tabulations for FAQ scores and the three greatest hopes are shown in Table 13. Again, no significant differences were found among the variables.

Insert Table 13

Finally, the cross-tabulations for FAQ scores and the three most common responses to the question concerning the onset of old age are shown in Table 14. As with the other measurements of expectations, no significant differences were found. These results suggest that knowledge about aging has little influence on expectations for late adulthood.

Insert Table 14

Discussion

Knowledge

Research suggests that knowledge levels about aging and the elderly are low (Palmore, 1998), and the results of this study support those findings. A mean score of 39% accuracy was found among the 183 participants who completed Palmore's Facts on Aging Quiz. Research findings showing that knowledge levels are consistently low

across various demographic variables such as age (Pulliam & dancer, 1996; O'Hanlon, Camp & Ososfski, 1993), education level (Klein & Klein, 1991), and gender (Palmore, 1998) were also supported. The results of this study showed no significant differences in scores for any of the demographic variables.

Misconceptions

According to research, misconceptions about aging have a significant effect on attitudes towards the elderly. Misconceptions are a contributing factor to negative attitudes toward older adults, and increased knowledge of aging is predictive of more positive attitudes toward the elderly (Luszcz & Fitzgerald, 1986).

Studies that claim a consistent negative bias in attitudes about aging and the elderly suggest that this may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990). Misconceptions found in this study were similar to those found by other researchers (Palmore, 1998). Palmore's review of over 150 studies using the Facts on Aging Quiz (FAQ) found seven common misconceptions and this study matched five of those. Given the low FAQ scores found in this study, however, the misconceptions did not consistently show a negative bias toward the elderly. Negatively biased misconceptions found among the majority of respondents included over-estimations of the poverty rate, auto accident rate, and the proportion of people in long-stay institutions among adults over 65.

Results also showed that a majority of respondents underestimated the adaptability to change among older adults. However, the results also showed that almost half the respondents *underestimated* the proportion of adults over 65 who suffer from Alzheimer's disease by a factor of 10. Additionally, this study found that the majority of

respondents had no misconceptions regarding learning, strength, happiness, and sexual performance among adults over 65. These findings contradict the popular views that "the majority of Americans believe that most aged are senile, impotent, useless, lonely, and miserable" (Palmore, 1998, p. 8), or the prevalent stereotype of most older persons as being "frail, ill, and suffering from dementia" (Butler, 1999, p. 4).

In all, only four misconceptions among a total of eight were clearly negatively biased, compared with six of the seven found in Palmore's research review (1998). Therefore, although previous research has demonstrated a consistent negative bias in attitudes about aging and the elderly, which may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990), the results of this study are not consistent with previous research findings. The findings of this study cannot be generalized to the population due to sampling limitations, but they suggest that a lack of knowledge does not necessarily result in a consistent negative bias against the elderly, and the low ratio of negatively biased misconceptions may indicate that our own fears of the aging process are lower than in the past.

Differences were found when comparing respondents' ages and responses to Palmore's Facts on Aging Quiz (FAQ) question 7, concerning the percentage of people over 65 in long-stay institutions. These differences showed that twice as many of the youngest respondents (19-36 years) overestimated the percentage compared with the oldest respondents (54-73 years). In addition, cross-tabulations revealed that the number of respondents who indicated that they didn't know the correct answer increased steadily with age. Almost four times as many of the oldest respondents indicated that they didn't know the answer compared with the youngest respondents. Whether the older

respondents had less misconceptions regarding elderly in long-stay institutions or were simply less likely to guess the correct response remains unclear.

Differences were also found when comparing respondents' ages and responses to FAQ question 11, concerning adaptability among people over 65. Cross-tabulations showed that respondents age 54 or older are more knowledgeable about adaptability to change among people over 65. This was not surprising, and suggests that older respondents were likely to recognize their own adaptability skills and answered accordingly. These differences may suggest that older people are more aware of certain aspects of old age than younger people, but the findings did not show any general improvement in overall FAQ scores due to age or any other demographic variable.

Expectations

Researchers are beginning to recognize the roles that expectations play throughout a person's life. Expectations for the future establish a sense of personal continuity and also contribute to the motivation necessary in the present to bring about these future expectations (Roberts, 1992). In this way, the hopes and fears about late adulthood can alter a person's present life-course and shape the future.

The results of this study showed that the three most often cited hopes were identical to the three most often cited fears concerning old age. They included physical health, mental health, and independence. Similarly, single greatest hopes regarding old age showed an identical ranking - maintaining or improving their physical health, mental health, and independence. When asked to identify their single greatest fear regarding old age, however, more respondents indicated a decline in mental health than a decline in physical health.

Earlier studies found that when people ranging in age from 19 to 83 were asked about their hopes and fears about the future, 70% indicated that personality characteristics were the most significant issue, with physical health the second most identified factor (Roberts, 1992). The findings of this study revealed a much smaller proportion of respondents who ranked personal qualities as one of their top three hopes and fears, with 26% of respondents indicating that maintenance of positive personal qualities was one of their top three hopes and only 10.4% of respondents indicating that the loss of positive personal qualities was one of their top three fears. Older participants stressed autonomy issues more than younger participants, and that younger adults were more concerned about personality and mental health than older adults (Roberts, 1992). The results of this study also found that younger participants indicated mental health concerns more often than older participants, but analyses showed no statistical significance among the differences. Also, the results of this study show that fears concerning late adulthood were tightly focused on declining health and independence. Hopes for late adulthood, in contrast, were spread out among a variety of issues.

One of the most interesting results of this study involved the differences found among the respondents' greatest hopes relating to the demographic variable of gender. Almost 34% of male respondents indicated that their greatest hope involved mental health, while only 10% of female respondents indicated that their greatest hope involved mental health. This leads to the question of why more than three times as many men than women focused on mental health, since there is no overall gender difference in the prevalence rates for Alzheimer's disease and other forms of senile dementia (Jorm, 1990). These results suggest that further research into the influence of gender on expectations for

late adulthood may reveal significant differences in how men and women perceive the future.

Also, 80% of respondents who indicated that their greatest hope involved improving or maintaining financial resources were female. This is not so surprising, since much of the popular literature concerning women and finances suggests that women reach retirement age with substantially less savings and income than men (Leonard, 1993). It has been suggested that this is due to several disparities between men and women, including the fact that women generally earn less over the course of their careers, women are 50% less likely to have employer-provided pensions, and the simple fact that women tend to live longer than men Ealy & Lash, 1999).

The results of this study also showed that participants indicated a variety of answers to the question "I will begin to think of myself as old when I ..." The most common responses fell into the category of self-sufficiency, followed by responses indicating that old age is a state of mind, and health related activity limitations. A substantial difference was found between men and women concerning the category of self-sufficiency. Almost four times as many women as men indicated that loss of self-sufficiency would mark the onset of old age, and this issue bears further investigation. Again, further research into the influence of gender on expectations for late adulthood may help explain the differences in how men and women perceive the future.

Relationship between knowledge and expectations

Analyses of the relationship between knowledge about aging and expectations for late adulthood did not reveal any appreciable relationships. Measures of association revealed extremely weak associations between the variables comprising expectations

(fears, hopes, and the onset of old age) and knowledge about old age (Table 12). Cross-tabulations of survey responses concerning fears for late adulthood and knowledge about old age are shown in Table 12. Cross-tabulations of survey responses concerning hopes and knowledge about old age are shown in Table 13, and for the onset of old age and knowledge in Table 14. These results suggest that knowledge about aging may *not* be a significant factor in the formation of expectations and concerns about late adulthood. Additionally, the results of this study suggest that misconceptions about the health and well-being of older adults did not have a significant influence on expectations for the future. Therefore, the findings of this study suggest that beliefs about aging in general, whether accurate or not, have very little influence on how people anticipate their own late adulthood. Figure 2 shows the relationships between knowledge about aging, misconceptions, expectations of late adulthood, and the variables which show an influence on them based on the results of this study.

Insert Figure 2

These findings suggest that certain demographic variables may influence both knowledge about aging and expectations for late adulthood. For example, a relationship was found between the gender of the respondents and their expectations. Also, knowledge about specific areas of aging seemed higher among the oldest of the respondents However, neither knowledge or misconceptions about aging had any appreciable influence on participants' expectations.

Conclusions

In general, this study found that knowledge levels about aging were low and that misconceptions are common, confirming Palmore's claim that "most people know little about aging and have many misconceptions" (1998, p. 43). The specific misconceptions identified in this study are also similar to previous findings. However, fewer negatively biased misconceptions were found than in previous studies. It remains unclear whether the lower frequency of negatively biased misconceptions is due to the limitations of this study, or whether a lack of knowledge does not necessarily result in a consistent negative bias against the elderly. It is also possible that the low ratio of negatively biased misconceptions may indicate that our attitudes about the aging process are becoming more positive. Further, the findings of this study suggest that beliefs about aging, whether accurate or not, do not have a significant role in how people anticipate their own late adulthood.

Implications

One area where the results of this study lead to questions and potential future research involves the area of expectations for late adulthood. If, as the results of this study show, knowledge about aging is not a significant factor in the formation of expectations and concerns about late adulthood, then future research could investigate which factors *do* influence expectations for the future. For example, gender was found to have some influence on hopes concerning late adulthood, and this potential relationship could be one issue for further research. The substantial differences between men and women concerning hopes about maintaining mental health in late adulthood bears scrutiny, since research shows that both genders run the risk of contracting Alzheimer's

disease and other forms of senile dementia. Also, the substantial differences between men and women concerning loss of self-sufficiency as a marker for the onset of old age poses questions that may be answered with further research.

Additionally, the focus on health related concerns for the future found in this study supports previous research in this area, but may have negative implications. In the present study, 86.1% of respondents indicated that health issues and related loss of independence were their greatest fears. In a study by LaPierrre, Boufard, & Bastin, (1997), health and personality issues were central concerns for the majority of participants when asked about the future, but concerns for the well being of others and a desire to maintain loving relationships differentiated those participants who were happy with their lives. Participants who reported concerns centered on health status also reported a lack of meaning in their lives and negative expectations for the future. While the present study did not measure life satisfaction or issues concerning meaning, the emphasis on health found in this study leads to further questions regarding the influence of expectations on happiness and well-being.

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APPENDICES

APPENDIX A

Solicitation Letter and Research Instrument

February 25, 2001

Dear Potential Participant,

I'm sending you the enclosed material because I hope that you will spare a few minutes from your busy schedule and take part in this important study. My name is Art McGovern, and I am a graduate student in the gerontology program here at Oklahoma State University. To put it plainly, **I need your help**. The attached questionnaire is part of my thesis study, which focuses on knowledge about aging and expectations for late adulthood. The results of this study will be valuable in the areas of education, health care, and gerontological research, and **your participation will help make this study successful.**

Your opinions matter. The enclosed questionnaire involves your personal views about the aging process and late adulthood. You have been randomly selected and participation is completely voluntary. If you do agree to participate, be assured that your participation will be **anonymous** and **confidential.** No names or identification numbers are used.

To participate, simply fill out the enclosed questionnaire, place the completed questionnaire into the campus mail envelope provided, and drop it into an outgoing campus mail tray. The attached envelope is already addressed to us here at HES.

I look forward to your help with this project. If you have any questions regarding this study, you may contact me in care of my advisor, Dr. Joseph Weber, or contact the Executive Secretary of the Oklahoma State University Institutional Review Board, as follows:

Dr. Joseph Weber
139 HES
Stillwater, OK 74078
(405) 744 - 7511

or

Sharon Bacher, IRB
Secretary
305 Whitehurst
Stillwater, OK 74078
(405) 744 - 5700

Completion of the questionnaire will imply your voluntary consent to participate in this study. Thank you for your support on this project.

Sincerely,

Arthur R. McGovern
NAS/Gerontology
Oklahoma State University

AGING AND EXPECTATIONS FOR LATE ADULTHOOD

SURVEY QUESTIONNAIRE

(FRONT COVER)

Section I: Demographic Information

Please answer the following questions. If you are an undergraduate student, indicate freshman, sophomore, junior, or senior for level of education (Question 3).

1. What is your present age? _____

2. What is your gender? _____

3. What is the highest level of education that you have completed? (Please circle the appropriate answer).

   a) High school
   b) Some college
   c) Bachelor's degree
   d) Some graduate school
   e) Master's degree
   f) Doctoral degree

4. What is your major or department? _____

Section II: Facts on Aging Quiz

Please answer the following questions to the best of your knowledge. Circle the response you feel is the most correct for each question.

1. The proportion of people over 65 who are senile (have impaired memory, disorientation, or dementia) is
   a) About 1 in 100
   b) About 1 in 10
   c) About 1 in 2
   d) The majority
   e) Don't know

2. The senses that tend to weaken in old age are
   a) Sight and hearing
   b) Taste and smell
   c) Sight hearing and touch
   d) All five senses
   e) Don't know

3. The majority of old couples
   a) Have little or no interest in sex
   b) Are not able to have sexual relations
   c) Continue to have sexual relations
   d) Think sex is only for the young
   e) Don't know

4. Lung capacity in old age
   a) Tends to decline
   b) Stays the same among nonsmokers
   c) Tends to increase among healthy old people
   d) Is unrelated to age
   e) Don't know

5. Happiness among old people is
   a) Rare
   b) Less common than among younger people
   c) About as common as among younger people
   d) More common than among younger people
   e) Don't know

6. Physical strength
   a) Tends to decline with old age
   b) Tends to remain the same among healthy old people
   c) Tends to increase among healthy old people
   d) Is unrelated to age
   e) Don't know

7. The percentage of people over 65 in long-stay institutions (such as nursing homes, mental hospitals, and homes for the aged) is about
   a) 5%
   b) 10%
   c) 25%
   d) 50%
   e) Don't know

8. The accident rate per driver over age 65 is
   a) Higher than for those under 65
   b) About the same as those under 65
   c) Lower than those under 65
   d) Unknown
   e) Don't know

9. Most workers over 65
   a) Work less effectively than younger workers
   b) Work as effectively than younger workers
   c) Work more effectively than younger workers
   d) Are preferred by most employers
   e) Don't know

10. The proportion of people over 65 who are able to do their normal activities is
   a) One tenth
   b) One quarter
   c) One half
   d) More than three fourths
   e) Don't know

11. Adaptability to change among people over 65 is
   a) Rare
   b) Present among about half
   c) Present among most
   d) More common than among younger people
   e) Don't know

12. As for old people learning new things
    a) Most are unable to learn at any speed
    b) Most are able to learn, but at a slower speed
    c) Most are able to learn as fast as younger people
    d) Learning speed is unrelated to age
    e) Don't know

13. Depression is more frequent among
    a) People over 65
    b) Adults under 65
    c) Younger people
    d) Children
    e) Don't know

14. Old people tend to react
    a) Slower than younger people
    b) At about the same speed as younger people
    c) Faster than younger people
    d) Slower or faster than others, depending on the type of test
    e) Don't know

15. Old people tend to be
    a) More alike than younger people
    b) As alike than younger people
    c) Less alike than younger people
    d) More alike in some respects and less alike in others
    e) Don't know

16. Most old people say
    a) They are seldom bored
    b) They are usually bored
    c) They are often bored
    d) Life is monotonous
    e) Don't know

17. The proportion of old people who are socially isolated is
    a) Almost all
    b) About half
    c) Less than a fourth
    d) Almost none
    e) Don't know

18. The accident rate among workers over 65 tends to be
    a) Higher than among younger workers
    b) Higher than among younger workers
    c) Higher than among younger workers
    d) Unknown because there are so few workers over 65
    e) Don't know

19. The proportion of the U.S. population now age 65 or over is
    a) 3%
    b) 13%
    c) 23%
    d) 33%
    e) Don't know

20. Medical practitioners tend to give older patients
    a) Lower priority than younger adults
    b) The same priority than younger adults
    c) Higher priority than younger adults
    d) Higher priority if they have Medicaid
    e) Don't know

21. The poverty rate (as defined by the federal government) among old people is
    a) Higher than among children under age 18
    b) Higher than among all persons under 65
    c) About the same as among persons under 65
    d) Lower than among persons under 65
    e) Don't know

22. Most old people are
    a) Still employed
    b) Employed or would like to be employed
    c) Employed, do housework or volunteer work, or would like to do some kind of work
    d) Not interested in any work
    e) Don't know

23. Religiosity tends to
    a) Increase in old age
    b) Decrease in old age
    c) Be greater in the older generation than in the younger
    d) Be unrelated to age
    e) Don't know

24. Most old people say they
    a) Are seldom angry
    b) Are often angry
    c) Are often grouchy
    d) Often lose their tempers
    e) Don't know

25. The health and economic status of old people (compared with younger people) in the year 2010 will
    a) Be higher than now
    b) Be about the same as now
    c) Be lower than now
    d) Show no consistent trend
    e) Don't know

Section III: "Old Age" Questionnaire

Please respond to the following questions to the best of your ability. Read the question, imagine yourself in the future, and think about your expectations concerning late adulthood. For Question #1, rank the top three responses concerning your fears about old age in order of importance to you (1 = greatest fear, 2 = second greatest fear, 3= third greatest fear). If you wish to add a response choice not found in the list, please write it on the line provided for "Other."

1. My greatest fears concerning old age relate to the

____ Deterioration of my physical health
____ Deterioration of mental functioning
____ Loss of my independence and self-sufficiency (becoming a burden on family or society)
____ Lack of my financial resources
____ Deterioration of my physical appearance
____ Deterioration of my personal qualities (becoming rigid, closed-minded, or grumpy)
____ Loss of social involvement resulting in isolation and loneliness
____ Deterioration of my ability to contribute to my community or society
____ Decline in my spirituality
____ Other _____

For Question #2, rank the top three responses concerning your hopes about old age in order of importance to you (1 = greatest hope, 2 = second greatest hope, 3= third greatest hope). If you wish to add a response choice not found in the list, please write it on the line provided for "Other."

2. My greatest hopes concerning old age relate to

____ Maintaining or improving my physical health
____ Maintaining or improving my mental health
____ Maintaining or improving my independence and self-sufficiency
____ Maintaining or improving my financial resources
____ Maintaining or improving my physical appearance
____ Maintaining or improving my positive personality characteristics, such as a good sense of humor, openness to experience, and kindness
____ Maintaining or improving close relationships with friends and family
____ Maintaining or improving my ability to contribute to my community or society
____ Maintaining or improving my spirituality
____ Other _____

The following is a completely open-ended question. Please read the question and respond in your own way and as fully and descriptively as you can.

4. I will begin to think of myself as old when I ...

Thank you very much for your participation in this study.

This questionnaire is part of a research project being
conducted by
Arthur McGovern
in partial fulfillment of the requirements for the
Master of Science degree
in Gerontology at Oklahoma State University.

Any questions or comments can be directed to
Joseph Weber, Ph.D. (Thesis Advisor)
at 744-7511 139 HES
or
Sharon Bacher (IRB Secretary)
at 744-5700 305 Whitehurst

(BACK COVER)

APPENDIX B

Analysis of Research Objectives and Tables

Research Objective One

To determine the current knowledge levels about aging among the sample.

A mean score of 39% accuracy was found among the 183 participants who completed Palmore's Facts on Aging Quiz (FAQ). Scores on ranged from no correct responses to 72% correct. Scores were measured against all demographic variables using measures of association and statistical significance tests (see Table 2). Analyses found no significant associations between FAQ scores and age, gender, education level, or academic department variables.

Research suggests that knowledge levels about aging and the elderly are low (Palmore, 1998), and the results of this study support those findings. Research findings showing that knowledge levels are consistently low across various demographic variables such as age (Pulliam & dancer, 1996; O'Hanlon, Camp & Ososfski, 1993), education level (Klein & Klein, 1991), and gender (Palmore, 1998) were also supported. The results of this study showed no significant differences in scores relating to any of the demographic variables.

Research Objective Two

To identify the most common misconceptions about aging among the sample.

The majority of participants responded accurately to questions concerning learning abilities, reaction times, sexual behavior, work efficacy, and happiness among the elderly. Two areas of overwhelming accuracy included questions about employment and physical strength in late adulthood. Over 75% of respondents correctly indicated that most old people work in some capacity, or would like to do some kind of work. Eighty three percent of respondents correctly indicated that physical strength tends to decline with old age.

Misconceptions about aging were operationalized as any FAQ questions in which close to a majority of respondents answered incorrectly. Misconceptions were prevalent in areas concerning senility, declining senses, long-term institutionalization, accident rates, adaptability, population size, religiosity, and poverty rates among the elderly (Table 3).

Responses to two of the FAQ questions indicated overly optimistic beliefs about aging. While not a clear majority, 42% of the respondents underestimated the proportion of people over 65 with some type dementia or memory impairment as being 1 in 100. The proportion is actually 1 in 10. Similarly, over 52% of respondents indicated that only sight and hearing tend to weaken in old age, although the correct answer was that all five senses tend to decline.

Several negative misconceptions were also identified. A majority of respondents (53%) overestimated the percentage of people over 65 in long-term institutions,

indicating between 10% and 50%. The actual percentage of people over 65 in long-term institutions is only 5%.

A majority of respondents (57%) overestimated the auto accident rate among older adults, indicating that the auto accident rate among drivers over 65 was equal to (19.8%) or higher (37.4%) than those under 65. The accident rate among those over 65 is actually lower than for adults under age 65.

A majority of respondents underestimated the adaptability of older adults. Almost 54% of respondents indicated that adaptability to change among people over 65 is present in only one-half or less. Studies show that adaptability is present in most (Palmore, 1999).

A majority (61%) of respondents overestimated the proportion of the U.S. population now age 65 or over. None of the respondents underestimated the proportion. Thirty five percent of respondents indicated 23%, and 25% of respondents indicated 33% of the population was 65 or over. Only 15.8% of the respondents accurately indicated that 13% is the correct proportion of the population 65 or over.

A majority of respondents (53.3%) overestimated the poverty rate among old people, indicating that it is greater than or equal to the poverty rate for people under 65. The poverty rate among people over 65 is actually less than for those under 65, including children.

A final misconception concerned religion. Roughly half of respondents (49.5%) incorrectly indicated that religiosity increases with age. Research shows that religiosity is simply more prevalent among older generations (Palmore, 1998).

Analyses revealed interesting differences in responses to two FAQ questions in relation to the respondents' ages. One difference was found when comparing respondents'

ages and responses to FAQ question 7, concerning the percentage of people over 65 in long-stay institutions. Cross-tabulation (see Table 4) showed that the youngest respondents were twice as likely to overestimate percentage of people over 65 in long-stay institutions as the oldest respondents. Almost 78% of the youngest respondents (19-36 years) overestimated the percentage, compared with only 37.5% of the oldest respondents (54-73 years).

Another difference was found when examining respondents' ages and responses to FAQ question 11, concerning adaptability among people over 65. Cross-tabulation showed that older respondents were much more likely to correctly answer than the youngest respondents. The majority of respondents (53.1%) age 54 or older correctly indicated that adaptability to change was present in most people over 65. Among the youngest respondents (19-36 years), however, the majority (69.5%) indicated that adaptability was rare (see Table 5).

According to research, misconceptions about aging have a significant effect on attitudes towards the elderly. Misconceptions are a contributing factor to negative attitudes toward older adults, and increased knowledge of aging is predictive of more positive attitudes toward the elderly (Luszcz & Fitzgerald, 1986).

Studies that claim a consistent negative bias in attitudes about aging and the elderly suggest that this may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990). Misconceptions found in this study were similar to those found by other researchers (Palmore, 1998). Palmore's review of over 150 studies using the Facts on Aging Quiz (FAQ) found seven common misconceptions and this study matched five of those. Given the low FAQ scores found in

this study, however, the misconceptions did not consistently show a negative bias toward the elderly. The results showed that almost half the respondents *underestimated* the proportion of adults over 65 who suffer from Alzheimer's disease by a factor of 10. Additionally, this study found that the majority of respondents had no misconceptions regarding learning, strength, happiness, and sexual performance among adults over 65. These findings contradict the popular views that "the majority of Americans believe that most aged are senile, impotent, useless, lonely, and miserable" (Palmore, 1998, p. 8), or the prevalent stereotype of "all older persons as being frail, ill, and suffering from dementia" (Butler, 1999, p.4).

In all, only four misconceptions among a total of eight were clearly negatively biased, compared with six of the seven found in Palmore's research review (1998). Therefore, although previous research has demonstrated a consistent negative bias in attitudes about aging and the elderly, which may stem from a lack of knowledge or may be a product of our own fears of the aging process (Perdue & Gurtman, 1990), the results of this study are not consistent with previous research findings. The findings of this study cannot be generalized to the population due to sampling limitations, but they suggest that a lack of knowledge does not necessarily result in a consistent negative bias against the elderly, and the low ratio of negatively biased misconceptions may indicate that our own fears of the aging process are lower than in the past.

The differences found among responses to FAQ question 11, concerning adaptability among people over 65 relating to respondents' ages were not surprising, and suggest that older respondents were likely to recognize their own adaptability skills and answered accordingly. These differences may suggest that older people are more aware of

certain aspects of old age than younger people, but the findings did not show any general improvement in overall FAQ scores due to age or any other demographic variable.

Research Objective Three

To identify the predominant expectations concerning late adulthood among the sample.

Hopes & Fears

When respondents ranked their top three fears and top three hopes, the three most often cited hopes were identical to the three most often cited fears concerning old age (Tables 6 & 7). Ninety one percent of respondents indicated that a decline in physical health was one of their top three fears (see Table 6), followed by a decline in mental health (76%), and loss of independence and self-sufficiency (64.3 %). Similarly, 77.1% of respondents indicated that maintaining or improving their physical health was one of their top three hopes, followed by maintaining or improving their mental health (56.8%), and maintaining their independence and self-sufficiency (46.2%).

When respondents were asked to identify their single greatest hope regarding old age (see Table 7), the frequencies showed a similar ranking: 24.6% indicated that maintaining or improving their physical health was their greatest hope, 19.9% indicated mental health, and 13.5% indicated independence and self-sufficiency. When asked to identify their single greatest fear regarding old age (see Table 6), however, more respondents indicated a decline in mental health (36.7%) than a decline in physical health (30.1%). Additionally, the cumulative percentages show that declines in physical health, mental health, and independence account for 86.1% of total responses regarding respondents single greatest fear. However, maintaining or improving physical health, mental health, and independence account for only 57.9% of total responses regarding respondents single greatest hope.

Analyses showed that respondents single greatest fears and single greatest hopes were closely related (lambda = .471, $p < .05$). Cross-tabulations showed that 85% of respondents who indicated that maintaining or improving their physical health was their greatest hope also indicated that a decline in their physical health was their greatest fear (see Table 8). One hundred percent of those who indicated that maintaining or improving their mental health was their greatest hope also indicated that declining mental health was their greatest fear. Finally, 69.6% of those who indicated that maintaining or improving their independence was their greatest hope also indicated that loss of their independence was their greatest fear.

Differences found between the demographic variable of gender and the respondents greatest hopes (see Table 9). Cross-tabulations showed that males were over three times as likely to indicate that their greatest hope was the maintenance or improvement of their mental health.

One of the most interesting results of this study involved the differences found among the respondents' greatest hopes relating to the demographic variable of gender. Almost 34% of male respondents indicated that their greatest hope involved mental health, while only 10% of female respondents indicated that their greatest hope involved mental health. This leads to the question of why more than three times as many men than women focused on mental health, since there is no overall gender difference in the prevalence rates for Alzheimer's disease and other forms of senile dementia (Jorm, 1990). These results suggest that further research into the influence of gender on expectations for late adulthood may reveal significant differences in how men and women perceive the future.

Also, 80% of respondents who indicated that their greatest hope involved improving or maintaining financial resources were female. This is not so surprising, since much of the popular literature concerning women and finances suggests that women reach retirement age with substantially less savings and income than men (Leonard, 1993). It has been suggested that this is due to several disparities between men and women, including the fact that women generally earn less over the course of their careers, women are 50% less likely to have employer-provided pensions, and the simple fact that women tend to live longer than men Ealy & Lash, 1999).

Earlier studies found that when people ranging in age from 19 to 83 were asked about their hopes and fears about the future, 70% indicated that personality characteristics were the most significant issue, with physical health the second most identified factor (Roberts, 1992). The findings of this study revealed a much smaller proportion of respondents who ranked personal qualities as one of their top three hopes and fears, with 26% of respondents indicating that maintenance of positive personal qualities was one of their top three hopes and only 10.4% of respondents indicating that the loss of positive personal qualities was one of their top three fears.

In earlier studies, older participants stressed autonomy issues more than younger participants, and that younger adults were more concerned about personality and mental health than older adults (Roberts, 1992). The results of this study also found that younger participants indicated mental health concerns more often than older participants, but analyses showed no statistical significance among the differences.

Onset of Old Age

Responses to the survey question regarding the onset of old age were coded into eight distinct categories (Table 10). When respondents were asked to complete the sentence "I'll begin to think of myself as old when I...," the most commonly identified issue was self-sufficiency (17.8%), followed by responses indicating that old age is a state of mind (17.2%), and health related activity limitations (16%).

Self-sufficiency

Responses involving self-sufficiency were usually stated as "can no longer take care of myself" or "begin to lose my independence due to physical decline." It is interesting to note that females were almost four times more likely to indicate that declines in self-sufficiency marked the onset of old age than male respondents. Over 26% of female respondents indicated that declines in self-sufficiency marked the onset of old age, compared with only 7.0% of male respondents. Of the 29 total respondents who indicated that declines in self-sufficiency marked the onset of old age (see Table 11), 82.8% were female.

State of mind

Responses involving state of mind included a variety of statements such as "when I die" or "when I have time," and also more specific statements such as "hopefully never, I think old age is a state of mind." As in the last example, many respondents clearly stated that old age is a state of mind. Others suggested that they already think of themselves as old. All responses that indicated a frame of mind independent of other factors were coded into this category.

Activity limitations

Responses involving health related activity limitations included statements such as "when I can no longer remain as physically active as I am now" or "when I begin to have difficulty in participating in the activities I enjoy." Others included references to specific past-times such as mountain climbing or traveling.

Personal markers

Responses identifying non-health related personal markers accounted for 14.1% of total responses. These personal markers included significant milestones or events such as retirement or reaching specific chronological ages.

General functioning

Responses related to general functioning such as "when I begin to feel physically tired" or "when I'm not able to function physically or mentally" accounted for 12.3% of total responses. These responses indicated physical or mental declines without any specific ramification or limitation and were therefore coded separately from health-related loss of self-sufficiency or activity limitations.

External markers

Environmental, or external, markers accounted for 9.2% of total responses. These included significant events such as becoming a grandparent or the loss of contemporaries. Other similar responses involved grandchildren reaching adulthood or graduating college, and events such as "overhear someone refer to me as an 'old fart'".

Loss of hope or interest

Finally, psychological attitudes involving loss of hope or interest (7.4%) included responses such as "when I lose hope" or "when I lose interest in life", and responses involving learning and contribution to society, such as "when I stop learning new things"

or "when I feel that can no longer contribute" accounted for the remaining 6.1% of total responses.

One of the most interesting results of this study involved the differences found among the respondents' greatest hopes relating to the demographic variable of gender. A clear majority of respondents (70.6%) who indicated that mental health was their greatest hope were male. This leads to the question of why would more than twice as many men focus on mental health compared to women. Also, 80% of respondents who indicated that their greatest hope involved improving or maintaining financial resources were female. Again, why are so many more women concerned about finances compared to men?

The results of this study also showed that participants indicated a variety of answers to the question "I will begin to think of myself as old when I ..." The most common responses fell into the category of self-sufficiency, followed by responses indicating that old age is a state of mind, and health related activity limitations.

Research Objective Four

To determine whether FAQ scores and misconceptions were associated with the reported expectations for late adulthood.

No significant associations were found between survey responses concerning hopes (Table 12), fears (Table 13), or the onset of old age and knowledge about old age (Table 14). This suggests that knowledge about aging may *not* be a significant factor in the formation of expectations and concerns about late adulthood. In this study, misconceptions about the health and well-being of older adults did not have a significant influence on expectations for the future. Figure 2 shows the relationships between knowledge about aging, misconceptions, expectations of late adulthood, and the variables which show an influence on them based on the results of this study.

Insert Figure 2

These findings suggest that certain demographic variables may influence both knowledge about aging and expectations for late adulthood. However, neither knowledge or misconceptions about aging had any appreciable influence on participants' expectations.

Table 1

Descriptive Characteristics of Study Respondents.

Categories	n	Frequency	Percent	Mean
Age: (Range = 19 - 73)	180			39.92
Gender:	183			
Female		101	55.2	
Male		82	44.8	
Education Level:	183			
High School		8	4.4	
Some college		52	28.4	
Bachelor's degree		22	12.0	
Some graduate school		18	9.8	
Master's degree		37	20.2	
Doctoral degree		46	25.1	

Table 1 (Continued)

Descriptive Characteristics of Study Respondents.

Categories	n	Frequency	Percent	Mean
Academic Department or Major:	176			
College of Agricultural Sciences		15	8.5	
College of Arts & Sciences		50	28.4	
College of Business Administration		11	6.3	
College of Education		28	15.9	
College of Engineering, Architecture		30	17.0	
College of Human Environmental Sciences		13	7.4	
College of Veterinary Medicine		4	2.3	
Other		25	14.2	

Table 2

Results of Palmore's Facts on Aging Quiz (FAQ) and Statistical Analyses

FAQ Scores

Range of Scores: 0 - 72% accuracy of responses

Mode: 36

Mean Score: 39.02

Measures of Association showing no significant associations between FAQ scores and demographic variables.

FAQ Scores (ranked) * Age (ranked): (gamma = -.067, p = .368)

FAQ scores (grouped) * Gender: (lambda = .030, p = .692)

FAQ Scores (ranked) * Education levels: (gamma = .004, p = .961)

FAQ scores (grouped) * Academic department: (lambda = .094, p.=.172)

Significance Tests

FAQ Scores * Age of Respondents: (r = -.049, p = .515)

FAQ scores * Gender: (t = .519, p = .604)

FAQ Scores (ranked) * Education levels: $\chi^2(15, N = 183) = 12.840$, p=.615

FAQ scores (ranked) * Academic department: $\chi^2(21, N = 176) = 14.915$, p=.827

Table 3

FAQ Questions Which Identify Misconceptions About Aging and Descriptive Statistics.

Facts on Aging Quiz Question		n	Frequencies	Percent
FAQ Question 1				
The proportion of people over 65 who are senile (have impaired memory, disorientation, or dementia) is		181		
a)	About 1 in 100		77	42.1
b)	**About 1 in 10**		**39**	**21.5**
c)	About 1 in 2		3	1.7
d)	The majority		3	1.7
e)	Don't know		59	32.6
FAQ Question 2				
The senses that tend to weaken in old age are		182		
a)	Sight and hearing		95	52.2
b)	Taste and smell		5	2.7
c)	Sight hearing and touch		2	1.1
d)	**All five senses**		**75**	**41.2**
e)	Don't know		5	2.7
FAQ Question 7				
The percentage of people over 65 in long-stay institutions (such as nursing homes, mental hospitals, and homes for the aged) is about		181		
a)	**5%**		**33**	**18.2**
b)	10%		39	21.5
c)	25%		43	23.8
d)	50%		15	8.3
e)	Don't know		51	28.2
FAQ Question 8				
The accident rate per driver over age 65 is		182		
a)	Higher than for those under 65		68	37.4
b)	About the same as those under 65		36	19.8
c)	**Lower than those under 65**		**37**	**20.3**
d)	Unknown		1	.5
e)	Don't know		40	22.0

* (Bold highlights indicate correct response.)

Table 3 (Continued)
FAQ Questions Which Identify Misconceptions About Aging and Descriptive Statistics.

Facts on Aging Quiz Question		n	Frequencies	Percent
FAQ Question 11				
Adaptability to change among people over 65 is		181		
a)	Rare		46	25.4
b)	Present among about half		51	28.2
c)	**Present among most**		**51**	**28.2**
d)	More common than among younger people		76	3.3
e)	Don't know		27	14.9
FAQ Question 19				
The proportion of the U.S. population now age 65 or over is		183		
a)	3%		0	0
b)	**13%**		**29**	**15.8**
c)	23%		64	35.0
d)	33%		46	25.1
e)	Don't know		44	24.0
FAQ Question 21				
The poverty rate (as defined by the federal government) among old people is		182		
a)	Higher than among children under age 18		16	8.8
b)	Higher than among persons under 65		51	28.0
c)	About the same as among persons under 65		30	16.5
d)	**Lower than among persons under 65**		**25**	**13.7**
e)	Don't know		60	33.0
FAQ Question 23				
Religiosity tends to		182		
a)	Increase in old age		90	49.5
b)	Decrease in old age		1	.5
c)	**Be greater in the older generation than in the younger**		**39**	**21.4**
d)	Be unrelated to age		32	17.6
e)	Don't know		20	11.0

Table 4

Cross-tabulation of Respondents' Age and Responses to FAQ Question 7, Concerning Long-stay Institutionalization Among the Elderly.

FAQ Question 7			**Age**	**Groups**	
The percentage of people over 65 in long-stay institutions is	19-24	25-36	37-44	45-53	54-73
5%	**4**	**4**	**9**	**8**	**7**
	(11.1%)	**(11.1%)**	**(27.3%)**	**(19.5%)**	**(21.9%)**
10%	11	4	10	8	6
	(30.6%)	(11.1%)	(30.3%)	(19.5%)	(18.8%)
25%	13	13	4	7	5
	(36.1%)	(36.1%)	(12.1%)	(17.1%)	(15.6%)
50%	4	6	1	3	1
	(11.1%)	(16.7%)	(3.0%)	(7.3%)	(3.1%)
Don't Know	4	9	9	15	13
	(11.1%)	(25.0%)	(27.3%)	(36.6%)	(40.6%)

Table 5

Cross-tabulation of Respondents' Age and Responses to FAQ Question 11, Concerning Adaptability Among the Elderly.

FAQ Question 11			**Age**	**Groups**	
Adaptability to change among people over 65 is	19-24	25-36	37-44	45-53	54-73
Rare	15 (41.7%)	15 (41.7%)	8 (23.5%)	5 (12.5%)	2 (6.3%)
Present among about half	10 (27.8%)	9 (25.0%)	10 (29.4%)	13 (32.5%)	9 (28.1%)
Present among most	**6 (16.7%)**	**10 (27.8%)**	**8 (23.5%)**	**9 (22.5%)**	**17 (53.1%)**
More common than among younger people	0 (0.0%)	0 (0.0%)	3 (8.8%)	2 (5.0%)	1 (3.1%)
Don't Know	5 (13.9%)	2 (5.6%)	5 (14.7%)	11 (27.5%)	3 (9.4%)

Table 6

Categories in Which "Declines in" Represent the Greatest Fears for Late Adulthood.

Category	Greatest Fear		2nd Greatest Fear		3rd Greatest Fear	
	n = 166		n = 163		n = 162	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Physical health	50	30.1	62	38.0	37	22.8
Mental Health	61	36.7	39	23.9	25	15.4
Independence	32	19.3	30	18.4	43	26.5
Financial Resources	7	4.2	15	9.2	23	14.2
Physical Appearance	2	1.2	1	.6	5	3.1
Personal Qualities	3	1.8	6	3.7	8	4.9
Social Involvement	6	3.6	5	3.1	13	8.0
Social Contribution	2	1.2	4	2.5	5	3.1
Spirituality	0	0	1	.6	1	.6
Other - Death	1	.6	0	0	0	0
Other - Loss of spouse	1	.6	0	0	2	1.2
Other - Loss of love	1	.6	0	0	0	0

Table 7

Categories in Which "Maintenance or Improvement of" Represent the Greatest Hopes for Late Adulthood.

Category	Greatest Hope n = 171		2nd Greatest Hope n = 168		3rd Greatest Hope n = 168	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Physical health	42	24.6	44	26.2	44	26.2
Mental Health	34	19.9	43	25.6	19	11.3
Independence	23	13.5	21	12.5	34	20.2
Financial Resources	15	8.8	11	6.5	16	9.5
Physical Appearance	3	1.8	0	0	7	4.2
Personal Qualities	13	7.6	15	8.9	16	9.5
Social Involvement	17	9.9	21	12.5	17	10.1
Social Contribution	3	1.8	6	3.6	11	6.5
Spirituality	21	12.3	6	3.6	2	1.2
Other - Learning	0	0	0	0	1	.6
Other - Stay with spouse	0	0	1	.6	0	0
Other - Prioritize	0	0	0	0	1	.6

Table 8

Cross-tabulation Showing the Frequency of Responses Where Greatest Hopes Were the Same as Greatest Fears.

Greatest Fears	Greatest Hopes: Physical Health Frequency/ (Percent)	Mental Health Frequency/ (Percent)	Independence Frequency/ (Percent)
Physical Health	**34**	0	3
	(85.0%)	(0.0%)	(13.0%)
Mental Health	3	**33**	3
	(7.5%)	**(100.0%)**	(13.0%)
Independence	2	0	**16**
	(5.0%)	(0.0%)	**(69.6%)**

Table 9

Descriptive Statistics for Demographic Variables and the Three Greatest Hopes for Late Adulthood.

Categories	**Physical Health** Frequency/ (Percent)	**Mental Health** Frequency/ (Percent)	**Independence** Frequency/ (Percent)
Age Groups			
19-24 (n=33)	5 (15.2%)	7 (21.2%)	1 (3.0%)
25-36 (n=32)	6 (18.8%)	8 (25.0%)	1 (3.1%)
37-44 (n=31)	9 (29.0%)	4 (12.9%)	5 (16.1%)
45-53 (n=40)	10 (25.0%)	7 (17.5%)	10 (25.0%)
54-73 (n=32)	11 (34.4%)	8 (25.0%)	4 (12.5%)
Gender:			
Female (n=100)	27 (27.0%)	10 (10.0%)	14 (14.0%)
Male (n=71)	15 (21.1%)	24 (33.8%)	9 (12.7%)
Education Level:			
High School (n=8)	4 (50.0%)	0 (0.0%)	1 (12.5%)
Some college (n=48)	13 (27.1%)	12 (25.0%)	3 (6.3%)
Bachelor's degree (n=20)	4 (20.0%)	1 (5.0%)	5 (25.0%)
Some graduate school (n=18)	5 (27.8%)	2 (11.1%)	3 (16.7%)
Master's degree (n=34)	6 (17.6%)	5 (14.7%)	5 (14.7%)
Doctoral degree (n=43)	10 (23.3%)	14 (32.6%)	6 (14.0%)

Table 9 (Continued)

Descriptive Statistics for Demographic Variables and the Three Greatest Hopes for Late Adulthood.

Categories	**Physical Health** Frequency/ (Percent)	**Mental Health** Frequency/ (Percent)	**Independence** Frequency/ (Percent)
Academic Department:			
Ag. Sciences (n=14)	4 (28.6%)	2 (14.3%)	2 (14.3%)
Arts & Sciences (n=48)	8 (16.7%)	13 (27.1%)	7 (14.6%)
Business Admin(n=10)	3 (30.0%)	1 (10.0%)	2 (20.0%)
Education (n=26)	9 (34.6%)	2 (7.7%)	4 (15.4%)
Engineering (n=28)	6 (21.4%)	10 (35.7%)	2 (7.1%)
H.E.S. (n=12)	2 (16.7%)	2 (16.7%)	2 (16.7%)
Vet Medicine (n=4)	1 (25.0%)	1 (25.0%)	1 (25.0%)
Other (n=23)	6 (26.1%)	2 (8.7%)	2 (8.7%)

Table 10

Response Categories to the Question "I Will Begin to Think of Myself as Old When I...".

Onset of Old Age (n=163)		
Categories	Frequencies	Percent
Health and general abilities		
Self-Sufficiency	29	17.8
Activity limitations	26	16.0
General functioning	20	12.3
Psychological attitudes		
State of mind	28	17.2
Loss of interest/hope	12	7.4
No longer learning/contributing	10	6.1
Non-health related significant events		
Personal Markers	23	14.1
Environmental events	15	9.2

Table 11

Descriptive Statistics for Demographic Variables and the Three Most Common Responses Regarding the Onset of Old Age.

Categories	**Self-sufficiency** Frequency/ (Percent)	**State of Mind** Frequency/ (Percent)	**Activity Limits** Frequency/ (Percent)
Age Groups			
19-24 (n=33)	3 (9.4%)	6 (18.8%)	7 (21.9%)
25-36 (n=32)	3 (9.7%)	7 (22.6%)	3 (9.7%)
37-44 (n=31)	8 (26.7%)	5 (16.7%)	5 (16.7%)
45-53 (n=40)	9 (23.1%)	7 (17.9%)	7 (17.9%)
54-73 (n=32)	5 (15.2%)	3 (10.3%)	4 (13.8%)
Gender:			
Female (n=92)	24 (26.1%)	16 (17.4%)	13 (14.1%)
Male (n=71)	5 (7.0%)	12 (16.9%)	13 (18.3%)
Education Level:			
High School (n=8)	4 (50.0%)	0 (0.0%)	3 (37.5%)
Some college (n=48)	8 (16.7%)	7 (14.6%)	6 (12.5%)
Bachelor's degree (n=18)	5 (27.8%)	4 (22.2%)	4 (22.2%)
Some grad school (n=17)	3 (17.6%)	4 (23.5%)	3 (17.6%)
Master's degree (n=35)	6 (17.1%)	5 (14.3%)	4 (11.4%)
Doctoral degree (n=37)	3 (18.1%)	8 (21.6%)	6 (16.2%)

Table 11 (Continued)

Descriptive Statistics for Demographic Variables and the Three Most Common Responses Regarding the Onset of Old Age.

Categories	**Self-sufficiency** Frequency/ (Percent)	**State of Mind** Frequency/ (Percent)	**Activity Limits** Frequency/ (Percent)
Academic Department:			
Ag. Sciences (n=14)	2 (14.3%)	4 (28.6%)	2 (14.3%)
Arts & Sciences (n=48)	6 (12.5%)	11 (22.9%)	7 (14.6%)
Business Admin (n=9)	2 (22.2%)	0 (0.0%)	1 (11.1%)
Education (n=24)	6 (25.0%)	2 (8.3%)	2 (8.3%)
Engineering (n=27)	2 (7.4%)	7 (25.9%)	5 (18.5%)
H.E.S. (n=11)	5 (45.5%)	0 (0.0%)	1 (9.1%)
Vet Medicine (n=4)	0 (0.0%)	1 (25.0%)	1 (25.0%)
Other (n=24)	4 (16.7%)	3 (12.5%)	7 (29.2%)

Table 12

Measures of Association Between Knowledge and Expectations and Cross-tabulations of FAQ Scores and the Three Greatest Fears Concerning Late Adulthood.

Measures of association showing extremely weak associations between variables

FAQ scores (grouped) * Greatest fear: (lambda = .010, p = .847)

FAQ scores (grouped) * Greatest hope: (lambda = .039, p = .250)

FAQ scores (grouped) * Onset of old age: (lambda = .067, p = .114)

Cross-tabulations of FAQ Scores and the Three Greatest Fears about Late Adulthood.

Three Greatest Fears	**FAQ Scores**			
Declines in the following:	**0 - 28** Frequency/ (Percent)	**29 - 36** Frequency/ (Percent)	**37 - 44** Frequency/ (Percent)	**45 - 72** Frequency/ (Percent)
Physical Health	11 (30.6%)	14 (32.6%)	14 (32.6%)	11 (25.0%)
Mental Health	12 (33.3%)	17 (39.5%)	13 (30.2%)	19 (43.2%)
Independence	8 (22.2%)	6 (14.0%)	10 (23.3%)	8 (18.2%)
	n = 36	n = 43	n = 43	n = 44

Table 13

Cross-tabulations of FAQ Scores and the Three Greatest Hopes for Late Adulthood.

Three Greatest Hopes	**FAQ Scores**			
Maintenance or improvement of the following:	**0 - 28** Frequency/ (Percent)	**29 - 36** Frequency/ (Percent)	**37 - 44** Frequency/ (Percent)	**45 - 72** Frequency/ (Percent)
Physical Health	10 (27.8%)	13 (28.9%)	12 (26.7%)	7 (15.6%)
Mental Health	4 (11.1%)	11 (24.4%)	7 (15.6%)	12 (26.7%)
Independence	9 (25.0%)	3 (6.7%)	6 (13.3%)	5 (11.1%)
	n = 36	n = 45	n = 45	n = 45

Table 14

Cross-tabulations of FAQ Scores and the Three Most Common Responses Regarding the Onset of Old Age.

Onset of Old Age	**FAQ Scores**			
Markers indicating the onset of old age:	**0 - 28** Frequency/ (Percent)	**29 - 36** Frequency/ (Percent)	**37 - 44** Frequency/ (Percent)	**45 - 72** Frequency/ (Percent)
Loss of Self-sufficiency	7 (21.9%)	8 (18.6%)	10 (22.7%)	4 (9.1%)
State of Mind	7 (21.9%)	4 (9.3%)	7 (15.9%)	10 (22.7%)
Activity Limitations	3 (9.4%)	11 (35.6%)	5 (11.4%)	7 (15.9%)
	n = 32	n = 43	n = 44	n = 44

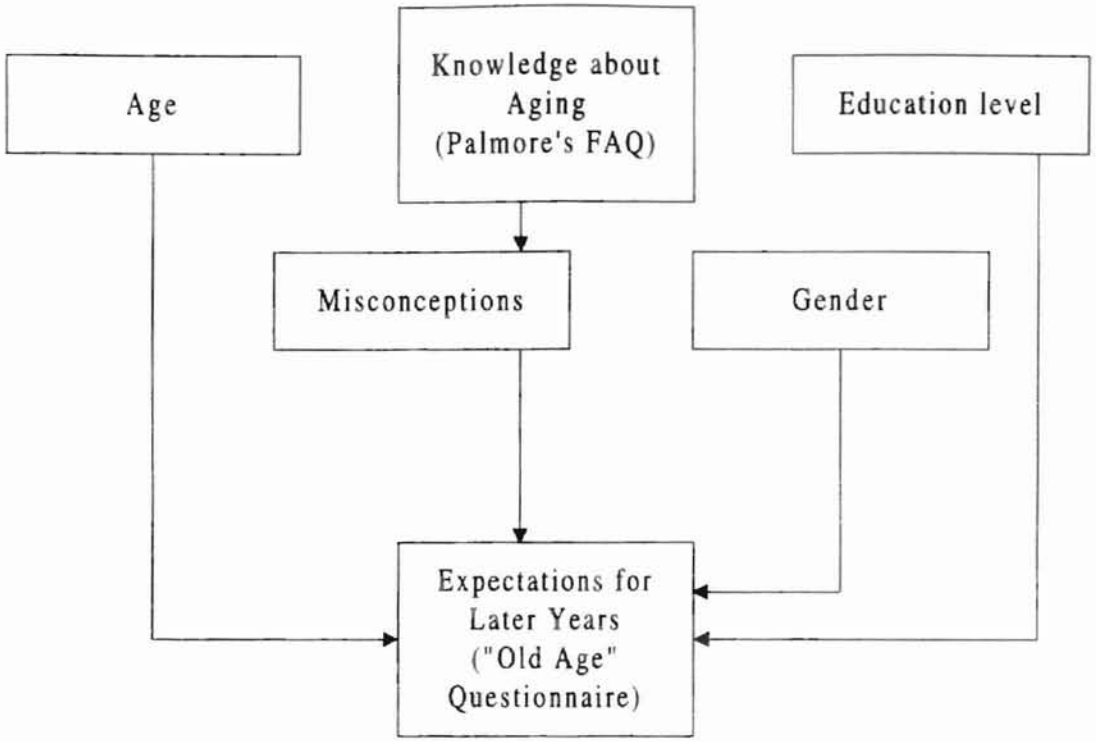

Figure 1

Theoretical Relationship Between Knowledge, Demographic Variables, and Expectations for Late Adulthood.

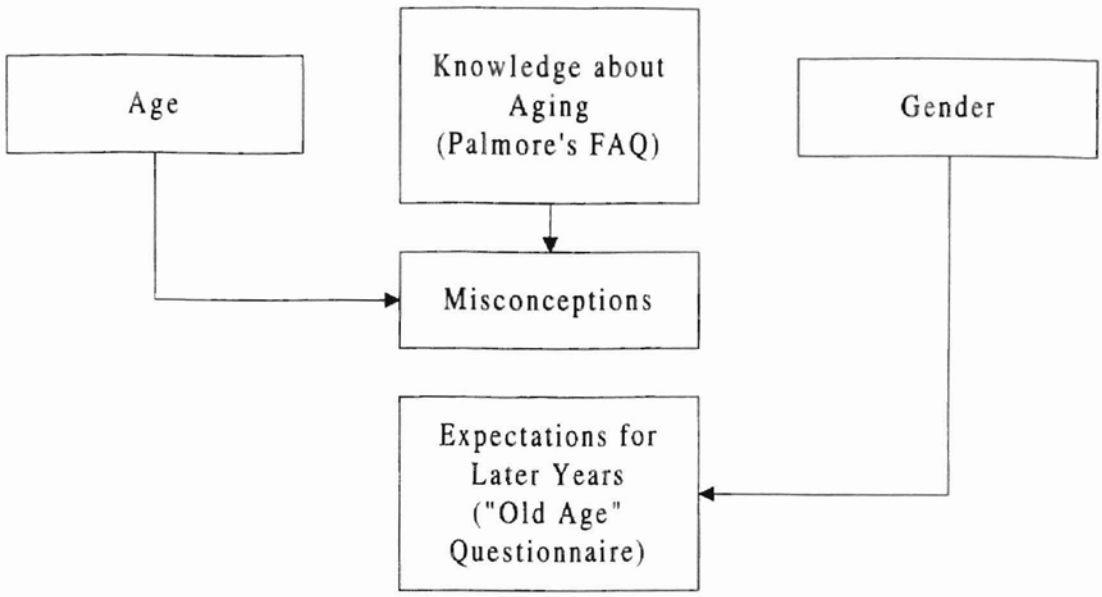

Figure 2

Relationship Between Knowledge, Misconceptions, Demographic Variables, and Expectations for Late Adulthood Based on Results of Study.

APPENDIX C

Institutional Review Board Form

Oklahoma State University
Institutional Review Board

Protocol Expires: 2/4/02

Date: Monday, February 05, 2001 IRB Application No: HE0134

Proposal Title: THE RELATIONSHIP BETWEEN KNOWLEDGE ABOUT AGING AND EXPECTATIONS FOR LATE ADULTGOOD

Principal Investigator(s):

Arthur McGovern
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Stillwater, OK 74074

Joseph Weber
139 HES
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

The Reviewer approves the protocol, but strongly suggests that the PI consider providing some opportunity for participants to learn the "right" answers to Section II question, if this is possible. The reviewer states it could be a great learning experience.

Signature

Carol Olson, Director of University Research Compliance

Monday, February 05, 2001
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Arthur Richard McGovern

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIP BETWEEN KNOWLEDGE ABOUT AGING AND EXPECTATIONS FOR LATE ADULTHOOD.

Major Field: Natural and Applied Sciences

Biographical:

Personal Data: Born in Zams, Austria, on May 5, 1963, the son of Arthur N. and Hermine K. McGovern.

Education: Graduated from Largo High School, Largo, Maryland in 1981. Received Bachelor of Science degree in Psychology from Northern Arizona University (Summa Cum Laude), Flagstaff, Arizona, in May 1999. Completed the requirements for the Master of Science degree in Natural and Applied Sciences - Gerontology at Oklahoma State University, Stillwater, Oklahoma, in August, 2001.

Employment Experience (Most Recent): Employed by Oklahoma State University at the Bartlett Independent Living Laboratory during the Fall of 2000 as a Psychological Technician (Graduate Assistantship); Oklahoma State University Bureau of Social Research during the Fall of 1999 as a Survey Technician; LANSystems, Inc. from 1993 to1996 as a Senior Network Engineer, and Technical Lead.

Professional Memberships: American Psychological Association, Phi Kappa Phi National Honor Society, Golden Key National Honor Society.