OLDER ADULTS' SELF-ASSESSMENTS OF HEALTH:

PERSONAL AND CONTEXTUAL INFLUENCES THROUGHOUT THE LIFE COURSE

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(Abstract)

The purpose of this study was to examine older adults' perceptions of health by exploring life course factors perceived as shaping the meanings of health in their daily lives. Using life course and life span perspectives as the theoretical framework to guide this mixed method study, I identified the contextual factors that influence older adults' health perceptions and behaviors. Through self-report questionnaires from 111 individuals ($\underline{M}$ age = 74 yrs., S.D. = 5.64) and in-depth interviews with 30 of the older adults from the larger sample (11 women and 19 men), I gained an understanding of how individual experiences and societal expectations influence the meanings older adults attach to health.

Results indicated that being female and having more years of formal education were associated with higher health ratings. Findings from the qualitative inquiry enhanced the quantitative results by highlighting the contextual factors that influenced older adults' health ratings. Examination of how the older adults came to their health rating provided definitions of health based on physical status, activity level, and social comparisons. Life course influences emerged as the older adults described what their health means to them. Activity level, independence, and age prescriptions were reflections of childhood health experiences that the older adults used to relate their present meaning of health in their everyday lives.

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for their continual prayers, love and encouragement. Their faith in me and incredible support

throughout my life has given me great self-confidence to achieve the highest goals. Thank you

mom and dad for teaching me to value and honor my elders. Thank you to my grandparents for

sharing their family history with me and making me a part of theirs.

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CHAPTER I

Introduction

In 2000, 35 million people, or 12% of the American population were age 65 years and older (U.S. Census Bureau, 2000). With the aging of the baby boom cohort, this number will escalate to 70 million or 20% of the population by 2030. Members of the older population are also aging. The number of persons aged 85 and older will more than double from approximately 4.3 million in 2000 to 8.9 million in 2030 (U.S. Census Bureau, 2000). With the size of the elderly population increasing, an emphasis on health and well-being in late life is progressively becoming a significant societal issue.

The majority of older adults consider their own health as good or excellent compared with others their same age. Even among the oldest members of the population, approximately 65% rate their health as good to excellent (Older Americans, 2000). But, self-ratings of health only tell a part of the story. The majority of older persons have at least one chronic illness and having multiple conditions is not uncommon. Arthritis, diabetes, stroke, hypertension, and heart disease are among the most prevalent chronic health conditions experienced by older adults (Older Americans, 2000). Often associated with these chronic diseases are secondary conditions (e.g., pain, depression) that increase a person's vulnerability to further disability and significantly influence quality of life.

Although knowing how older adults perceive their health and the type of chronic diseases they experience provides a global picture of their health status, it does not explain how their health influences their ability to complete activities of daily life. Many older adults with chronic conditions are able to function independently; however, some are not. Approximately 20% of noninstitutionalized adults 65 years of age and older report having one or more chronic health

conditions that limits their mobility (e.g., ability to go shopping, visit the doctor's office) and personal care activities (e.g., dressing, bathing, getting around inside the home) (AOA website). The need for assistance with daily activities increases to nearly 50% of individuals over age 85.

Self-ratings of health and health-related limitations are commonly used by researchers as central measures to predict mortality and morbidity within the older population (Benyamini, et al., 2000). Such measures, however, do not successfully capture the complex picture of health influences on everyday life (Bryant, Corbett, & Kutner, 2001). Recently, researchers have begun to explore older adults' definitions of health. For example, Idler, Hudson, and Leventhal (1999) compared older adults' personal definitions of health to self-ratings of health status and medical histories. Regardless of current health status, when older adults broadly defined their health to include social and psychological factors, their self-ratings of health were higher than older adults who narrowly defined their health purely within a biomedical context. These findings suggest that a variety of variables contribute to self-assessments of health, but not to how they influence the development of health perceptions.

Exploration of human health as a multidimensional, dynamic process is essential in understanding the meanings older adults attach to health (Bryant, Corbett, & Kutner, 2001; Ryff & Singer, 1998). Self-rating measures, although useful, do not explain the role health plays in the lives of older adults. By examining the intersections of individual and social variables that contribute to meanings of health, researchers will achieve greater insight into physical health and well-being in later life, and practitioners will be better able to understand the specific health concerns of aging individuals.

Theoretical Framework

Life-span and life course perspectives provide theoretical guidance for this study. They offer a multi-dimensional framework for the investigation of how the meanings behind older adults' self-ratings of health develop. In addition, these frameworks allow for a holistic examination of development and aging within a changing society. These theoretical standpoints present a context in which to distinguish among antecedents, correlates, and consequences that influence older adults' meanings of health as well as self-ratings of health (Spiro, 2001). These two perspectives share similar concepts that are useful for understanding the meaning of health in later life.

The life-span perspective originates from the discipline of psychology and focuses on individual development. Erickson's (1950) life-span theory of development focused on psychosocial progression through life stages. As individuals proceed from infancy through late adulthood they face different challenges. In each stage of development, they strive to achieve a balance between opposing tensions, such as trust versus mistrust and intimacy versus isolation. As individuals face primary challenges at each life stage, they also engage in the anticipation of future challenges, re-experience tensions that were inadequately integrated at an earlier stage of life, and re-examine events that were appropriately integrated in the past but are no longer adequate explanations in their current life. When presenting this framework, Erikson (1982) noted that individual development could not be adequately understood apart from personal and social contexts. Placing emphasis on age-related behavior associated with all segments of the age-span, Baltes (1970) promoted the examination of the complex network of interacting influences operating over time. Based on continuous change throughout the life-span, these concepts allow for the exploration of why individuals behave the way they do in certain

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situations. Through the use of a basic social exchange perspective, Baltes (1987) expands upon Erikson's ideas about development by suggesting a process of selective optimization with compensation (SOC) that depends on conditions of prior developmental events. He defines successful development as maximizing gains to achieve desired outcomes, and minimizing losses by avoiding undesirable goals or outcomes. Cultural and personal factors, as well as life experiences, contribute to the determination of desired outcomes and goals, which can change over time.

Spiro (2001) suggests that the use of the life-span perspective provides a unique vantage point from which to study health. Development as a lifelong process embodies acknowledged and perceived changes in health through each stage of life. Health is not static, and throughout the life span, health develops on multiple levels including physical, cognitive, emotional, and social. The multidimensionality of development corresponds to these multiple levels of health. The life-span approach also encompasses the multidirectionality of health that includes gains and losses. The fields of aging and health are often biased by focusing on illness and disease when studying older adults, whereas health maintenance and promotion are positive aspects of health that are just as prominent and should not be overlooked (Bryant, Corbett, & Kutner, 2001).

Life-span perspective emphasizes the importance of examining the influences of both ends of the health spectrum, the negative and positive affects of health and aging. The sociohistorical context of development influences individual perceptions of health. For example, the social historical practices of health have shifted from a disease management to prevention approach. Advances in medicine have moved focuses from acute, often fatal conditions, to more care of prolonged chronic diseases. The life-span perspective allows for a multidisciplinary approach that provides an increased understanding of the physical, psychological, and social

influences that shape health perceptions and contributes to the meanings older adults form about health.

A life course perspective stems from the field of sociology and examines change over time. Elder (1977) proposed a life course approach for the social and historical study of families. Exploration of how changes in the broader society affect changes in the lives of individuals and families over time was the basis for the first application of the life course to the study of families in Elder's (1974) *Children of the Great Depression*. Elaborating on the life course perspective, Bengtson and Allen (1993) presented a contextual, processual, and dynamic framework to examine the life course perspective applied to families over time. This approach incorporates both the micro and macrosocial levels of analysis. Five themes characterize the life course perspective on human development: (a) multiple temporal contexts of development; (b) multiple social contexts of development; (c) diachronic perspectives on development; (d) heterogeneity in structures and processes associated with development; and (e) utility of multidisciplinary perspectives on development (Bengtson & Allen, 1993).

The importance of time, context, process, and meaning play a role in how individuals perceive health and illness. As symbolic interactionism is a basic tenant of the life course perspective, the effect of these influential issues surrounding health and illness can be addressed (George, 1996; 1999). The timing of specific events surrounding health and illness impact the meanings that individuals associate with health. Illnesses such tuberculosis was the cause of death for many people in the 1920's and 1930's. Depending on the age of the individual at the time this epidemic was spreading through the family, different expectations and beliefs emerged. For instance, a three year old might have been banned from the room of the ill parent or sibling and associated the doctor with sadness and abandonment, but a thirteen year old might have been

expected to perform caregiving duties and foresaw the importance of health care practices. The value placed on health, and the treatment thereof, is also determined by the timing of life events within the societal context. In the early 1900's, for example, the most common type of formal health care available was a home visit by a doctor. These visits occurred only when persons were seriously ill or perhaps, near death. The social context of the individual within the family determines the function of health. Location within the broader social structure influences the health resources available to individuals. Economic status and geographic location shape the resources and access individuals have to practice health care. The process of how health impacts the lives of individuals within families is ever changing. The life course perspective emphasizes the importance of examining diverse experiences of the individual, such as the ways in which health behaviors emerge from family practices. Finally, the meanings that are socially constructed through age changes and life transitions serve to organize the ways in which health impacts the lives of older adults.

By blending aspects of life-span and life course approaches, I am able to examine influences on health that are consonant with both perspectives. Specific contextual influences suggested in the research literature include age, gender, education and marital status. Health plays different roles in the lives of men and women, and depending on their age or stage of development, they will have different health experiences. For example, as age increases, health perceptions are rated more positively, regardless of gender (Benyamini, Idler, Leventhal, & Leventhal, 2000). Contextual gender differences related to health are apparent in situations related to use and access. Women, who traditionally have had mothering and care taking responsibilities, tend to be heavier user of health care than their male counterparts, but often have more constrained access to health care because of limited financial resources (Pinquart &

Sorensen, 2001). Persons with more formal education report more positive health behaviors and higher self-ratings of health than persons with fewer years of formal education (Hirdes & Forbes, 1993). Marital status also affects the level of health support and care available to older adults. Although marital status is frequently associated with better health, being married does not always have a positive influence on health, especially when the spouse suffers from a debilitating disease or chronic illness (Bryant, Corbett, & Kutner, 2001).

By using the concept of development occurring in multiple social and historical contexts that is espoused by both life span and life course perspectives, I examine how key personal situations and social contexts influence health perceptions and behaviors in lives of older adults. The combination of these two perspectives applied to the examination of the health of older adults allows for an exploration of the underlying meanings attached to older adults' self-ratings of their health (George, 1996).

Purpose of the Research

The purpose of this research is to examine older adults' perceptions of health by exploring life course factors perceived as shaping the meanings of health in their daily lives. Guided by key life-span and life course constructs, the following research questions will be addressed:

1. Do contextual factors such as gender, age, educational attainment, and marital status influence health perceptions and behaviors?

2. How do individual experiences and societal expectations influence the meanings older adults attach to health?

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CHAPTER II

Review of Literature

In this chapter, I summarize the literature on older adults' self-ratings of health. First, I provide a brief overview of the use and importance of older adults' self-ratings of health. Second, I focus on personal influences on health perceptions and behaviors including gender, age, education, and marital status. I also describe the literature that focuses on the relationship between social support and self-ratings of health. I conclude this section with a critique of the health literature.

Use of Self-Ratings of Health

Self-rated health is a global assessment tool used to measure individuals' perceptions of their own health. In the study of health and later life, self-assessments of health have a long history of widespread use. As central measures of health status, self-ratings help to predict a number of health outcomes. Initially, self-rated health was used as an indicator of health status to aide physicians in the assessment of chronic illness (George, 2001). Self-assessed health has developed into a reliable measure used by many researchers to predict such health outcomes as, future morbidity (Ferraro, Farmer, & Wybraniec, 1997; Moller, Kristensen, & Hollnagel, 1996; Shadbolt, 1997), functional ability (Idler & Kasl, 1995; Kaplan, Strawbridge, Camacho, & Cohen, 1993), health care utilization and hospitalization (Mutran & Ferraro, 1988; Wolinsky, Culler, Callahan, & Johnson, 1994), and recovery from illness (Wilcox, Kasl, & Idler, 1996).

Researchers also use self-rated health as a predictor of mortality (see reviews by Benyamini & Idler, 1999; Idler, 1992; Ilder & Benyamini, 1997). In 1997, Idler and Benyamini published a review of 27 studies using self-ratings of health as predictors of mortality. Among 23 of the 27 studies, self-ratings of health reliably predicted survival in populations even when

accounting for known health risks. The authors argue that global self-ratings are important in assessing older adults' health status and serve as the first step in understanding the individual's health.

Health Perceptions and Behaviors

From the early interdisciplinary studies of health (Suchman, Phillips, & Streib, 1958) to current studies, researchers report discrepancies between global self-ratings and medically obtained health status information. Differences in findings are often associated with social and demographic factors such as gender and age. These variables influence how individuals evaluate their health (Idler & Benyamini, 1997). Several quantitative studies have explored these variables as predictors of self-rated health in late life using survey data. The meanings that people attach to self-rated health, however, are difficult to capture in quantitative survey research. In the last ten years, researchers have focused on expanding health self-assessments by combining quantitative surveys with qualitative interviews (Van Doorn, 1999). Through older adults' stories about their health experiences, they are able to substantiate the single self-rating of health.

Two recent studies have combined quantitative and qualitative methods to examine how older adults develop their self-ratings of health. Idler, Hudson, and Leventhal (1999) asked 159 older African-American adults (M age = 74.0; S.D. = 7.36) their definitions of health. Based on comparison of definitions to self-ratings of health and medical history, sample members were placed in four groups: health overestimators - individuals who rate health as excellent, very good, or good and have a high risk medical history; good health realists - individuals who rate health as good or better and have a medical history to match the score; poor health realists - individuals who rate health as poor and have poor health history; and, health underestimators -

individuals who rate health as "good," "fair," or "poor" and have a low risk medical history. Differences in these health categories were found by education, with health overestimators and good health realists having higher levels of education than poor health realists and health underestimators.

Van Doorn (1999) used the classification system developed by Ilder and colleagues (1999) as a basis to further compare ratings of health status and subjective appraisals of health. During in-depth interviews, 48 older adults (71% female; $\underline{M}$ age = 83.0 years) were asked to rate their health and describe their current health conditions. As in previous studies, the majority of respondents (43.8%) were categorized as good health realists. However, unlike in the Idler study, significant age differences were found between older adults who viewed their health differently. The average age of health optimists was 82 (SD = 6.70); poor-health realists were on average 80 years of age (SD = 5.50). In addition, clear differences between individuals with similar health status but different subjective appraisals (e.g., optimists vs. poor-health realists) emerged. While both optimists and poor-health realists mentioned negative initial attributions with approximately equal frequency, optimists made many more positive initial attributions. Many respondents considered family longevity, such as the age of their parents at time of death, and family health history such as sibling illnesses, as they developed their self-ratings of health. Distinctions between optimists and poor-health realists emerged through responses regarding social comparison where optimists made more age-related comments, attributing difficulties to old age, and poor-health realists made more neutral comments not concerned with their peers' health. A recurring theme among optimists and poor-health realists was the determination to postpone death until they reached a certain age, year, or meaningful occasion. Health

transcendence was seen in only health optimists as they acknowledged certain health problems but replied "I'm doing great," or "I'm coping just fine."

Bryant, Corbett, and Kutner (2001) collected individual health stories and collectively noted the similarities and differences between them. In semi-structured interviews, 22 older adults were asked what constitutes "health" and to describe factors contributing to their own health. Five themes emerged from the older adults' description of their health: "going and doing," "something worthwhile and desirable to do," "abilities," "resources," and "attitude." About one-half of the participants reported that upbringing played a role in attitude toward health. One male participant suggested that life experience, including upbringing and family support, made the difference in his attitude towards health. Several people spoke of control (the ability to do what you need to do) or willpower (a determined mindset) in maintaining a healthy lifestyle. Six older adults attributed their healthy living to self locus of control. Self-efficacy, self-esteem, and self-confidence were common characteristics that older adults attributed to better health. All but one of the participants who over-rated their health mentioned the importance of independence. Social resources, formal and informal, were found to have a direct impact on the functional ability of the older adult. Social support such as transportation, and help with housework allowed many participants to remain independent, and family and community resources provided emotional support that allowed older adults to feel worthwhile and a part of the larger social context.

Researchers also have examined the relationship between social support and older adults' health (Benyamini, Idler, Leventhal, & Leventhal, 2000; Wethington, Moen, Glasgow, & Pillemer, 2000) . Benyamini and colleagues evaluated the contribution of positive versus negative indicators of physical and psychosocial well-being on self-assessed health (SAH).

Cross-sectional and longitudinal data were collected from 851 community-dwelling older adults (60% female; M age = 73.0 years). Findings from the cross-sectional data revealed that social support had a significant positive correlation with SAH. In both cross-sectional and longitudinal findings, age also was related to health ratings, young-old adults rated their health higher than the old-old adults. Lower future SAH was predicted by older age, being male, and less social support. Education was not related to future SAH.

Social integration and health was the focus of research by DuPertuis, Aldwin, and Bosse (2001) as they examined the relationship between different sources of support and physical and mental health outcomes. The sample consisted of 1,209 males (M age = 62.0 years; S.D. = 7.80) who participated in the Normative Aging Study. Men with high levels of self-rated health were less likely to report illnesses that were rated to be serious and were less likely to report depressive symptoms. Furthermore, older age was weakly associated with higher frequency of interaction support from family, poorer self-rated health, and more serious illness. Men who had high perceived support from both family and friends reported better health than those with support primarily from family.

Health is often the product of many operating systems including biological, psychological, social, and cultural (George, 2001). Although, researchers tend to consider only one or two areas within any given study. DuPertuis, Aldwin, and Bosse (2001) demonstrated that mental health is an important factor to consider when determining the types of social support available to older adults. Similarly, Pinquart and Sorensen (2001) used a meta-analysis to synthesize findings from 300 empirical articles to examine gender differences in self-concept and psychological well-being in old age. Gender differences in physical health and competence were suggested as an explanation for lower subjective well-being in older women than men. Men

were more likely to report higher satisfaction, better subjective health, higher self-esteem, and less loneliness than women in samples where women were more disadvantaged with regard to objective health and everyday competence. With regard to influences of objective health, women reported higher happiness scores than men.

Just as mental health is an important predictor of self-rated health, physical health also impacts how older adults assess their health. Bosworth and colleagues (1999) examined the relationship between self-rated health and health status among coronary artery patients. The sample consisted of 2,855 older adults (68% male; $\underline{M}$ age = 63 years).   No age differences were found across the five ratings of health, however, higher health ratings were associated with high levels of education. Individuals who rated their health as excellent had a mean of more than 13 years of education compared to a mean level of 9.87 years of education for persons rating their health as poor. Sixty-seven percent of participants who rated their health as being poor were married, versus 85% of those who reported excellent health. A decline in health also was significantly related to a decline in social support. The findings from this study suggest that self-ratings of health reflect individuals' perceptions of their physical health, as well as their psychological well-being.

Health behaviors are often overlooked when examining self-rated health. To begin to address this gap in the literature, Schoenberg (1997) assessed the influence of health beliefs on prescribed dietary behaviors in chronic hypertension management of 41 rural Southern African-Americans age 65 and older. Most older adults believed that they could control their health by avoiding certain foods and taking prescribed medications; however, the data revealed that there was no relationship between adherence to medical advice regarding health practices such as diet, and health locus of control. The influence of health beliefs on the decision to follow treatment

recommendations is complex, as study members tend to maintain both traditional and biomedical health orientations and practices. In the interviews, participants were asked questions about dietary practices they used to control high blood pressure; home remedies such as vinegar, herbs, and lemon juice were the most frequently cited. When asked what sources the older adults received health information from, most informants reported they received more information from health care providers than any other source, although relatives, friends, and neighbors were also mentioned. An important finding from this study was the positive correlation that existed between the older adult personally knowing the health care provider and the older adults' willingness to adhere to their prescribed medical regime. The older adults in this sample believed in a "health dual efficacy," in that they relied on health care providers for advice and medical treatment, yet also believed in popular treatments such as home remedies.

Critique of the Health Self-Assessment Literature

There are several limitations in the literature on older adults' self-assessments of health. First, the study samples tend to be highly educated, predominantly White, gender biased (i.e., the majority either female or male), and generally older than 75. Few studies have examined diverse groups of older adults and less advantaged populations with fewer resources. When study samples allow for the examination of gender, George (2001) notes that the association between gender and self-rated health is inconsistent. Second, although researchers acknowledge the relationship between individual variables and self-ratings of health, there is a limited focus on their combined influences on health perceptions and behaviors. Third, the majority of studies that examine health behaviors focus on prevention or intervention outcomes (e.g., exercise and diet); very few studies look at how health management behaviors play out in the everyday lives of older adults. Fourth, contextual variables such as social support are used primarily as

descriptive variables to explain availability of resources, thus ignoring this relationship to older adults' self-ratings of health. Finally, although researchers recently have considered the meaning of self-assessed health, it is unclear what factors have influenced meanings of health across the life span.

Study Hypotheses

In order to address my first research question of "Do contextual factors such as gender, age, educational attainment, and marital status influence health perceptions and behaviors?," I propose three hypotheses.

1. Contextual factors will be predictive of self-rated health, specifically,

    a. Females will rate their health higher than males.

    b. Individuals who are older will rate their health higher than individuals who are younger.

    c. Individuals who are more educated will rate their health higher than individuals who are less educated.

    d. Individuals who are married will rate their health higher than individuals who are not married.

2. Contextual factors (i.e., gender, age, educational level, and marital status) will be predictive of older adults' Health Locus of Control (IHLC, PHLC, and CHLC) scores.

3. There will be differences in the frequency in which older adults typically call their doctors according to gender, age, education, and marital status.

CHAPTER III

Methods

The purpose of this study was to explore the meanings older adults attach to health and how past and present experiences influence their health ratings. I combined quantitative and qualitative data to address my research questions. Triangulation of data, using information from the qualitative interviews to enhance the quantitative responses, offered a more precise understanding of how sociodemographic variables, societal processes and opportunities, life course influences and transitions, and individual definitions of health influence self-ratings of health for older adults. Included in this chapter is a discussion of the strengths and weaknesses of using a pre-existing data set, a description of the data set that I used to conduct my analyses, a description of the sample and data collection procedures, and my analysis plan.

Secondary Data Analysis

Secondary data analysis is a research endeavor that uses existing material to provide a new evaluation of the already collected data. It can be used for a variety of research purposes with both advantages and disadvantages (Kiecolt & Nathan, 1985). The opportunity to use an available data set that matches my specific interests is advantageous. Although the focus of the original study is broader than what I propose to study, the information collected will allow me to address my research questions using multiple variables. Another advantage of secondary research is that it is a potential resource saver, in that less money, time, and personnel are required "upfront" to launch the study. A unique advantage of using this data is that I became a part of the research team during the second phase of the study. Even though I was not a part of the project's conceptual development, I was an active participant in the implementation process.

The use of secondary data also has its limitations. For example, original errors in the documentation such as typing in the data cannot be controlled or changed by secondary analysts. In this study, however, I had access to the original data and could make corrections where necessary. In addition, the measurements originally used may not be those precisely desired by secondary analysts; thus, my analysis is bound by data that already is collected (Kiecolt & Nathan, 1985).

The collection of information for the original study provided me the opportunity to combine quantitative and qualitative approaches to analyze the data. Within the past thirty years, the development of mixed methodologies emerged and has taken many forms. In 1978, Denzin used the term triangulation as an argument for the combination of methodologies to examine the same phenomenon and neutralize the particular data sources, investigators, and methods used. In later years, Greene, Caracelli, and Graham (1989), suggested other reasons for the combination of quantitative and qualitative methods. The use of quantitative and qualitative analyses is first justified in the classic sense of seeking convergence of results. Second, they are used in a complimentary sense as overlapping and different facets of a phenomenon may emerge. Third, in a developmental sense in that one method is used sequentially to inform the next. Mixed methods are used to observe contradictions and new perspectives. Finally, the fifth reason to use a combination of quantitative and qualitative methods is to expand the research by adding scope and breadth to the study.

The Data Set

In 1999, a two year study entitled "Health-Care encounters of older adults: Personal, contextual, and family influences" was launched. The study was conducted by Dr. Karen A. Roberto and her research team at Virginia Polytechnic Institute and State University. Funded by

the ASPIRES program at Virginia Tech, the goal of this feasibility study was to establish the methodology and pilot test measures to be used in a larger, more comprehensive study of the health and health care of older adults. Pilot data, focusing on the older adults' beliefs about their health and their interactions with their health care providers, was collected in three phases via self-report questionnaires, telephone interviews, and face-to-face guided interviews. The information that I used for this study comes from the self-report questionnaires and the face-to-face guided interviews.

Sample

The original sample (referred to as the clinic sample) consisted of 111 community dwelling adults who received care at a Veterans Affair medical center in Southwest Virginia in November and December of 1999 (Table 1). They ranged in age from 65 to 94 ($\underline{M}$ age = 74.4; SD = 5.64). Eighty percent of the participants were male, and 84% were White. Fifty-nine percent of the participants were married, 20% were widowed, 12% divorced or separated, and 9% had never been married. Participants reported an average of ten years (SD = 3.90) of education. The majority of the participants (91%) were retired, and most (92%) reported having an annual income of less than $25,000. They had an average of three living children and three living siblings. Most of the older adults (92 %) reported having at least one close friend. The majority of the participants (73%) reported living with someone, most often a spouse.

Approximately one year after completing the clinic surveys, 30 older adults participated in face-to-face interviews that allowed for more in-depth explanation of the study variables. The older adults ranged in age from 65 to 94 ($\underline{M}$ age = 74.4; SD = 5.64); 19 were male and 11 were female. Twenty-seven of the participants were White; three of the men were African American. Thirty-three percent of the participants were married, 27% were widowed, 33% divorced or

separated, and 7% had never been married. Participants reported having an average of eleven

years (SD = 3.90) of education. The majority of the participants (94%) reported being retired,

and 97% of the participants reported having an income of less than $25,000. The characteristics

of these 30 older adults mirror the original population sample except for gender where it was the

intention of the researcher to interview as many women as possible.

Table 1

Background Characteristics of Participants

	N	(%)
Age		
65-74	52	(48)
75+	56	(52)
Gender		
Male	89	(80)
Female	22	(20)
Race		
White	93	(84)
Black	12	(11)
Native American	3	(3)
Hispanic	1	(1)
Other	2	(1)
Education		
< High school	52	(56)
High school	24	(26)
> High school	17	(18)
Income		
< $25, 000	91	(92)
$25, 000 - $50, 000	8	(8)
Marital Status		
Married	62	(59)
Widowed	21	(20)
Divorced/Separated	12	(12)
Never Married	10	(9)

Procedures

Approximately two weeks prior to beginning data collection, letters describing the procedures and purpose of the study were sent to 270 persons 65 years of age and older who had appointments at three clinics (two primary care clinics and the women's clinic) at the Salem Veterans Administration Medical Center (Salem VAMC). Data were collected on all weekdays in November 2000 and one day in December 2000, with the exception of Veteran's Day, Thanksgiving, and the day after Thanksgiving. The extra day in December was added in order to increase the potential number of female participants as several individuals had scheduled appointments at the women's clinic on the first weekday of the month.

Of the 141 persons approached at the clinic, 111 persons completed the questionnaire for a response rate of 80%. Twenty-six of the participants (19%) approached at the clinics refused to participate, and three of the participants (2%) failed to return or did not complete the questionnaire. Of the 130 individuals that were not contacted, 89 (69%) failed to show up or cancelled their appointment; 41 (31%) individuals were not asked to participate in the study because an interviewer was not available at the time of their appointment (i.e., the interviewer was working with another participant or was not at the Salem VAMC during the time of the appointment). The interviewers met the participants in the lobby as they were waiting for their appointments, explained the study, and had them sign an informed consent form.

Approximately one year after the older adults completed the clinic survey, in-depth interviews were conducted with 30 older adults from the original sample. I became involved as a member of the research team at this stage of the study and assisted with the interview process. Eighty-five participants from the first phase of the study agreed to be contacted for a future interview. Thirty of these participants were eliminated from the potential sample for one or more

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of the following reasons: geographic location (not in the same state or beyond the 70 mile radius set as the driving distance for the study), the interviewer noted that the participant appeared cognitively incapable of answering questions or reluctant, their membership in a racial/ethnic group was too small too make meaningful comparisons with others in the sample (3 Native Americans), they had already participated in an in-depth interview in a previous study, and, in one case, we were unable to contact one of the participants because they did not have a phone in their home. Two participants provided phone numbers that had been disconnected or were not in service. In one case, the number we had for the person was a wrong number. We were not able to reach three individuals whose phone was either never answered or continually picked up by an answering machine. Finally, four participants had died since the first phase of the study. Of the remaining 45 potential sample members, 15 refused to be interviewed, for a follow-up response rate of 67%. Reasons for refusing included being too busy and no longer interested in participating in the study.

The project manager divided the participant list among three interviewers. Each interviewer sent the participant a letter describing the procedures and purpose of the study before they attempted to contact the participant. The interviewer called the participant 2 to 5 days after mailing the letter in order to set up an interview. If the participant was not home the first time, the interviewer made four more attempts to contact them, for a total of five attempts.

Before beginning the face-to-face interview, the interviewer further explained the study to the older adult by verbally covering the content of the consent form, asked if they had any questions, and had them sign the consent form. The guided interviews were audio-taped, and lasted between 30 and 120 minutes. At the end of the guided interview, the participants were asked to respond to a set of standard questions. The length of time for completing this section

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varied, depending upon whether or not they completed this section on their own or had it read to them, both of which were options. The audio tapes were transcribed verbatim. The interviewers reviewed each of the transcripts and made any necessary corrections to the transcript (i.e., clarified misspellings).

Measures

The nine-page clinic questionnaire consisted of 123 questions organized into three main sections: health care interactions, health and physical functioning, and demographic information. Responses were of the forced-choice variety, and were generally a mixture of categorical and dichotomous scales, with the exception of one open-ended question that asked the participant to briefly explain why they needed to see their health care provider. It took approximately 15 minutes for participants to complete the questionnaire. From the original questionnaire I will use approximately 59 items and 2 scales focusing on self-assessment of health (Appendix A).

General health demographics were gathered using ten items designed to elicit background information from the participants (e.g., gender, age, race, marital status, education, and income). In addition, the older adults were asked who lived with them, and how many living children, siblings, and friends they had. A list of 14 illnesses or conditions such as arthritis, heart problems, diabetes, and osteoporosis were included in order to gain descriptive information about the current health status of the older adults.

Six questions provided support information about whom the older adult is likely to talk with (e.g., spouse, child, sibling, and friend) about issues such as 'specific health problems,' 'seeing a doctor,' and 'taking medications.' Four general items pertaining to the participants' appointment for that day, such as how they arrived at the Salem VAMC, who made their

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appointment for them, and if they were accompanied by anyone are questions regarding the older adults' reliance on social networks in support of their health practices.

Five items addressing health behaviors included questions about when the participant might typically called their doctor such as 'at the first sign of a new physical problem,' 'when you believe the condition is serious, 'and 'when you are feeling sad or blue.' Issues that might potentially influence the participants' decision to seek medical care, such as transportation, cost, the length of time the problem has been bothering them, and inability to resolve the health problem by themselves were identified by twelve "yes/no" items in the questionnaire.

Health perceptions were defined by the older adults' self-ratings of health and health locus of control. The single item global health self-assessment scale allowed older adults to rate their health from excellent (4), very good (3), good (2), fair (1), or poor (0). Health perceptions were also measured using the eighteen item Multidimensional Health Locus of Control scale (MHLC) scale (Wallston, Wallston, & DeVellis, 1978) (MHLC; Form A). The scale consists of three 6-item subscales addressing internal health locus of control (IHLC) or the extent to which a person believes health is a function of one's own behavior; powerful others health locus of control (PHLC) or the extent to which a person believes their health status is due to the action of powerful people; and, chance health locus of control (CHLC), the extent to which a person believes chance influences their health. Items on each subscale were scored independently from strongly disagree (1) to strongly agree (6). Scores on one subscale are not predicated on the scores of another subscale. Participants can score high on all three subscales, high on one subscale and low on the other two, or low on one subscale and high on the other two. Wallston and colleagues (1978) report reliability estimates for the sub scales that range from .67 to .77 and

test-retest stability coefficients ranging from .60 to .70. In this study, reliability coefficients for the sub scales ranged from .64 to .75.

Guided Interview Questions

The guided interview was divided into six main sections: background, health and family history, current health, family and friend involvement, health care encounters, and future care. I used three of these areas to address my research questions (Appendix B). The first section, 'Health and Family History,' contained questions relating to family health discussions, reactions to family illnesses and other health events, and the kinds of actions taken by family members during sickness and health. The third section, 'Current Health,' included questions relevant to the participants' present health and how they take care of their health. The fourth section, 'Family and Friend Involvement,' contained general questions about participants' health discussions with family and friends. The last section, 'Future Care,' contained two questions: 'if, in the future, your health declines and you could not manage on your own, who would you look to for help and why?' and 'have you discussed your plans with anyone yet? If so, how did they react?'

Coding of Guided Interview

All interviews were coded using an open coding process. The coding scheme was developed by the principal investigator and two graduate research students, including myself. Based on multiple readings of the transcripts, we used an open coding process to generate a comprehensive list of themes and patterns in the interviews. After one independent and complete reading of the 11 women's transcripts, we came together as a team to brainstorm and create a coding scheme. Working individually, we used the first draft of the coding scheme to code a single interview. We then met as a group and discussed revisions we wanted to make to the coding scheme. This process continued until we felt we had a coding scheme that represented

the emerging themes (See Appendix C). As a team, we verified and refined five drafts of the coding scheme to include five primary coding categories: informal network structure, informal network connections, health history, current health problems and practices, and future care. After coding all 30 of the interviews, we compared and discussed our codes until we reached 100% agreement.

Analysis Plan

In order to address my first research question of "Do contextual factors such as gender, age, educational attainment, and marital status influence health perceptions and behaviors?," I propose three hypotheses.

1. Contextual factors will be predictive of self-rated health, specifically,

    a. Females will rate their health higher than males.

    b. Individuals who are older will rate their health higher than individuals who are younger.

    c. Individuals who are more educated will rate their health higher than individuals who are less educated.

    d. Individuals who are married will rate their health higher than individuals who are not married.

2. Contextual factors (i.e., gender, age, educational level, and marital status) will be predictive of older adults' health locus of control (IHLC, PHLC, and CHLC) scores.

3. There will be differences in the frequency in which older adults typically call their doctors according to gender, age, education, and marital status.

Multiple regression analysis was used to examine the first hypothesis. This procedure allowed me to determine the magnitude of the relationship between the criterion or dependent

variable and a combination of two or more predictor or independent variables (Gall, Borg, & Gall, 1996). Four contextual variables (i.e., gender, age, education, and marital status) were simultaneously entered into the equation to predict health ratings. Age and education were defined as continuous variables; gender (1 = female, 2 = male) and marital status (0 = not married, 1 = married) were defined as categorical variables.

For the qualitative analysis, I used a grounded theory method of open coding, axial coding, and selective coding to examine the identifiable definitions that the older adults used to describe their health ratings (Strauss, 1987; Strauss & Corbin, 1990). To understand how older adults formed their self-assessments of health, I reread all 30 transcripts and used the open coding process to conceptualize the basic sentence or phrase that the older adults used to define their health rating. I explored how the older adults came to their self-ratings of health, by analyzing the narrative coded as "Definition of health" under the main theme of "Current health problems and practices" from the original coding scheme (Appendix C). The thematic codes emerged as I employed axial coding. I used the constant comparison method to work back and forth between the raw data and the open codes and then the responses of the men and women and then the contextual influences on their self-assessment (Banks, Louie, & Einerson, 2000). Through this process I was able to refine my codes and form preliminary themes.

As I examined the basic ideas and themes that emerged from the first two coding steps, I identified core themes that characterized the older adults' narratives and finalized the coding process through selective coding. The construction of theory from the narrative evolved as I developed central descriptive themes to create a big picture of how the older adults defined their health. Through each of the three coding steps, I created a matrix to help identify themes and build interpretations of how the older adults defined their health ratings (Appendix E, F, G).

To examine the collective effect of the contextual factors on health locus of control, three separate regressions were run. The type of health locus of control (i.e., IHLC, PHLC, and CHLC) served as the dependent variable for each of the equations. Four contextual variables (i.e., gender, age, education, and marital status) were simultaneously entered into the equations to predict the type of health locus of control. All variables were defined and coded the same as in the first hypothesis.

I used t-tests and an ANOVA to examine the third hypothesis. T-tests were used to examine the differences in calling the doctor by gender, age, and marital status. For this analysis age was coded as a categorical variable. Responses of the young-old (individuals age 65-74) were compared to the responses of the old-old (individuals age 75 +). An ANOVA was used to examine the differences in levels of education (1 = less than high school, 2 = high school, and 3 = more than high school) and frequency of calling doctor. Frequency of calling the doctor was treated as a continuous variable (0 = never, 1 = sometimes, 2 = always).

In order to address my second research question of "How do individual experiences and societal expectations influence the meanings older adults attach to health?," I analyzed the relationship between the responses given in the clinic surveys in comparison to the information that the older adults provided in their face-to-face interviews. I examined the health-related past experiences, societal expectations, and influences on health that contribute to the meanings that older adults form about their health. To expose the life course influences on meanings of health, I examined the narrative coded under the primary theme of "Health history." Similar to the approach used for analyzing the narrative responses addressing hypothesis one, I used grounded theory methods to examine this research question (Banks, Louie, & Einerson, 2000; Strauss, 1987; Strauss & Corbin, 1990). I specifically looked for the open codes that emerged from the

question asked in the in-depth interview regarding past health experiences: "Did your family discuss health issues much? This question examined the meanings the older adults attached to their health ratings and originally was coded as "Definition of health" under the main theme of "Current health problems and practices" from the original coding scheme (Appendix C). Through the process of constant comparison I formulated axial coding categories. By comparing the original narrative to initial themes I examined how the contextual differences in the men and women's responses were influenced by life course experiences. Selective codes, a theoretical explanation based on the narrative, were then formed to represent the three primary themes that identified the meanings older adults attached to their health (Appendix H, I, J).

CHAPTER IV

Results

Introduction

Results for this study are based upon the clinic surveys with 111 individuals, 89 men and 22 women who received care from a Veterans Administration Hospital in Southwest Virginia and in-depth interviews with 30 of the older adults, 19 men and 11 women. In this chapter, I have organized the results around the three hypotheses. I examine contextual factors that serve as predictors of older adults' self-ratings of health and health locus of control and consider the relationship between contextual factors and calling the doctor as a result of various situations. The qualitative findings, describing the emergent meanings that older adults' attach to health and the individual experiences and societal expectations that influence the meaning of health supplement and enhance these quantitative results.

Contextual Influences on Health Perceptions and Behaviors

Hypothesis 1: Self-Rated Health

The correlations between the study variables are presented in Table 2. Among the independent variables, there was a moderate correlation between education and age, and marital status and age. Being male was associated with having more years of formal education ($r = -.416, p < .01$) and being married ($r = .310, p < .01$). Low to moderate correlations were found between several of the independent and dependent variables. Gender, more specifically being female, was associated with higher ratings of health, and a stronger internal health locus of control (IHLC) whereas being male was associated with a stronger powerful others health locus of control (PHLC). Age was associated with having stronger beliefs in chance health locus of control (CHLC); the older the individual, the greater reliance on chance in determining health

outcomes. Individuals with more years of formal education reported higher health ratings and a

stronger internal health locus of control, whereas individuals with fewer years of education

reported a stronger external health locus of control (i.e., PHLC and CHLC).

Table 2

Correlation Matrix

	1	2	3	4	5	6	7
1. Gender	__						
2. Age	-.070	__					
3. Education	-.416**	-.063	__				
4. MS	.310**	-.048	-.175	__			
5. SRH	-.368**	.055	.333**	-.125	__		
6. IHLC	-.214*	.004	.223*	.004	.475**	__	
7. PHLC	.257*	.061	-.299**	.119	-.184	.247*	__
8. CHLC	.177	.217*	-.262*	-.071	.049	.295**	.363**

Note: MS = marital status; SRH = self-rated health; IHLC = Internal Health Locus of Control;
PHLC = Powerful Others Health Locus of Control; CHLC = Chance Health Locus of Control.
* $p < .05$.
** $p < .01$.

Using multiple regression, self-rated health was regressed on the linear combination of

gender, age, education, and marital status. The regression equation accounted for 14% of the

variance in self-rated health (SRH), $F(4, 85) = 4.51$, $p < .01$. Beta weights (standardized

multiple regression coefficients) were assessed to determine the relative importance of the four

variables in predicting self-rated health (Table 3). Gender displayed a significant negative beta

weight ($\beta = 0.29$, $p < .05$); women rate their health better than men. Education level approached

significance ($\beta = 0.21$, $p = .06$), suggesting that older adults with more years of formal education rated their health better than older individuals with fewer years of formal education.

Table 3

Summary of Multiple Regression Analyses for Hypothesis 1

	Mean	S.D.	*b*	β
SRH (N=90)	1.49	1.01		
Gender	1.79	0.41	-0.71	-0.29*
Age	74.49	5.86	0.00	0.02
Education	10.04	3.93	0.01	0.21^{+}
Marital Status	0.58	0.50	0.00	0.01

Note: SRH = self-rated health
*$p < .05$; $^{+}p = .06$.

Justification of Health Rating

Three themes emerged from the older adults' responses to the question, "How did you come to that [health] rating." Based on my open codes, physical status, activity level, and social comparisons were the primary standards used by the older adults to assess their health. Thirteen of the older adults (10 men and 3 women) used more than one of these themes to define their health rating. As I examined these themes through a life course lens, areas where experiences differed by gender and age emerged. I did not observe that education and marital status influenced the ways that the men and women defined their health. The remaining qualitative results reflect the selective coding that explains how older adults justified their health ratings (Appendix E).

Physical Status

Evaluating their physical status was the most common way that both men and women arrived at their health rating. Seventeen out the 19 men said that their health rating was determined by their physical status; six out of the nine women rated their health according to

physical status. Regardless of how the older men and women perceived their health (e.g., good or poor), they based their rating on physical representations or events that contributed to concrete health problems. For example, Betty, a 66-year-old divorced woman, rated her health as good and said, "Well, I had a spell and they claimed, one specialist said it was heart angina and the other one said it was a muscle spasm….I think it is angina." Frank, a 71-year-old divorced man rated his health as fair because he said, "I get seizures."

Differences in age and gender were found among the participants who used physical status to rate their health. Four out of the six women who used a physical description to explain their health rating were 74 years of age or older; only four out of the 17 men were classified in this old-old age category. The consistent use of physical status despite age difference among the men and women is displayed in the comparison of George, a 66-year-old widowed man, and Charlotte, an 86-year-old widowed woman. George, who considered his health to be fair, said "I had my leg amputated, they found my heart was out of sequence,…and apparently I had also suffered a couple of minor heart attacks." Likewise, Charlotte also described her health-rating by her physical status and said, "I haven't had any pain or anything."

Activity Level

Living an active lifestyle and having the ability to function was of extreme importance to the older adults. Six of the men and four of the women defined their rating by what they could or could not do. From attending social engagements to using basic physical movements, men and women considered their activity level to be a significant marker of their health. Being active, having energy or the lack thereof, and taking part in physical activities such as walking or washing windows constitutes how the older adults described their activity level. Characteristics

among the men and women who used activity level to come to their health rating were similar regardless of their age.

Individuals who rated their health as good or fair used activity level as an indicator of health. For example, Oscar, a 73-year-old widowed man, said "I get out and walk. I can probably out walk you." Betty, a 66-year-old divorced woman, expressed her good health rating by recounting how she managed her lawn and said, "I can go and mow." Conversely, Paul, a 78-year-old married man, rated his health as poor because his health limits his ability to be active. He said, "I am unable to do any labor, I can't do anything other than sit around the house and do real light work."

Social Comparison

Social comparison, or the perception held by the older adults' of other individuals' well being, also was used by six men and one woman to describe their health rating. Five of the older adults made their comparison on the bases of age. For example, Anna, an 81-year-old divorced woman, said, "I am a whole lot better off than a lot people in my age group." The men were more implicit in the use of age as a means of comparison. Ken, an 82-year-old married man, who rated his health as fair, indirectly mentioned age as he explained his illness prevention strategy.

> Yeah, I figured that I look back and see people younger than I am and what kind of health they are in and I try to visualize what kind of life they had and if I thought they did something that would harm [their health], well I want to avoid it.

Ed, a 67-year-old married man who rated his health as very good, also came to his health rating as he compared his health to his peers and their physical status, he said, "Well hey, I look at

other people and see what kind of shape they are in, and then look at myself and I think I am real fortunate."

Hypothesis 2: Health Locus of Control

I used multiple regression analysis to examine if variables representing contextual factors were predictors of internal and external health locus of control (i.e., IHLC, PHLC, and CHLC). The four independent variables, gender, age, education, and marital status were simultaneously entered into the regression equation. Health locus of control (HLC) served as the dependent variable. Three separate regressions were run for each of the three subscales of HLC (See Table 4). The regression equation for internal health locus of control (IHLC) was not significant, $F(4,81) = 1.47$, $p > .05$. A significant regression equation $F(4,80) = 2.58$, p< .05 was produced for powerful others health locus of control (PHLC); however, none of the individual predictor variables were significant. Education level approached significance ($\beta = -0.22$, $p = .06$), suggesting that older adults with fewer years of formal education rely more on an external health locus of control from powerful others than older individuals with more years of formal education. For chance health locus of control (CHLC), the regression equation was also significant $F(4,80) = 3.31$, $p< .05$. The equation accounted for 14 percent of the variance in CHLC. Age was a significant predictor of CHLC ($\beta = 0.22$, $p < .05$). Individuals aged 75 to 84 held stronger beliefs in an external chance health locus of control than persons aged 65 to 74. Education level approached significance ($\beta = -0.22$, $p = .06$), suggesting that older adults with fewer years of formal education rely more on a chance health locus of control than older individuals with more years of formal education.

Table 4

Summary of Multiple Regression Analyses for Hypothesis 2

	Mean	S.D.	*b*	β
IHLC (N=86)	23.63	6.34		
Gender	1.77	0.42	-2.38	-0.16
Age	74.58	5.90	0.00	-0.02
Education	10.12	3.80	0.28	0.17
Marital Status	0.58	0.50	0.99	0.08
PHLC (N=85)	22.72	6.20		
Gender	1.78	0.42	2.35	0.16
Age	74.71	5.85	0.01	0.07
Education	10.00	3.75	-0.36	-0.22[+]
Marital Status	0.58	0.50	0.37	0.03
CHLC (N=85)	17.71	6.88		
Gender	1.76	0.43	1.67	0.10
Age	74.76	5.88	0.26	0.22*
Education	10.05	3.86	-0.40	-0.22[+]
Marital Status	0.59	0.50	-2.26	-0.16

Note: IHLC = Internal Health Locus of Control; PHLC = Powerful Others Health Locus of Control; CHLC = Chance Health Locus of Control.
*$p < .05$; [+]$p = .06$.

Hypothesis 3: Calling the Doctor

The third hypothesis predicted differences in the frequency in which older adults typically call their doctors. Means, standard deviations, and significance values are presented in Table 5. T-tests were preformed to examine the differences in calling the doctor by gender, age, and marital status, and an ANOVA was used to examine the differences in levels of education and the frequency in calling the doctor. No significance was found for differences in any of the variables. A comparison of the mean responses suggested that regardless of gender, age, education, and marital status, people tended to call the doctor more often if they felt their condition was serious than for new physical problems and for recurring physical problems.

Comparatively, they called the doctor less often if they felt sad or blue, or as a result of encouragement from another person.

Table 5

Means, Standard Deviations, Degrees of Freedom, and Significance Values

	Condition is serious	New physical problem	Recurring physical problem	Feel sad or blue	Another person suggests
Gender					
Males	1.52 (.73)	0.80 (.70)	1.01 (.74)	0.13 (.41)	0.67 (.65)
Females	1.60 (.68)	1.05 (.67)	1.14 (.65)	0.35 (.67)	0.70 (.47)
	$t(99)=0.50$	$t(102)=1.50$	$t(102)=0.74$	$t(100)=1.84$	$t(101)=0.17$
Age					
65-74	1.48 (.81)	0.76 (.72)	0.98 (.75)	0.23 (.56)	0.72 (.65)
75+	1.60 (.63)	0.88 (.65)	1.08 (.71)	0.14 (.40)	0.64 (.59)
	$t(96)=-0.81$	$t(99)=-0.95$	$t(99)=-0.67$	$t(97)=0.95$	$t(98)=0.66$
Education					
< High School	1.57 (.71)	0.82 (.71)	1.0 (.70)	0.01 (.34)	0.66 (.66)
= High School	1.52 (.68)	0.87 (.63)	0.91 (.75)	0.23 (.53)	0.74 (.62)
> High School	1.67 (.62)	0.80 (.68)	1.19 (.66)	0.34 (.48)	0.71 (.47)
	$F(2,82)=0.19$	$F(2,86)=0.06$	$F(2,86)=0.75$	$F(2,83)=1.87$	$F(2,84)=0.14$
Marital Status					
Married	1.56 (.68)	0.92 (.65)	1.05 (.68)	0.17 (.50)	0.78 (.61)
Not married	1.53 (.76)	0.76 (.73)	1.02 (.76)	0.21 (.47)	0.59 (.59)
	$t(95)=-0.22$	$t(99)=-1.11$	$t(98)=-0.18$	$t(96)=0.36$	$t(97)=-1.55$

Note: No significance was found for any of the variables

Life Course Influences on the Meanings Attached to Health

To address my second research question, I examined responses to the "Health and Family History" section of the in-depth interview to expose life course influences on health. I specifically looked for themes that emerged from three questions regarding past health experiences: "Did your family discuss health issues much?," "What types of things did your

parents do for themselves to stay healthy?," and "As a young and middle-aged adult yourself, how did you manage your health and any health problems?"

As I examined the meanings that the older adults attached to their health, I observed how life course experiences influenced the older adults' responses. The men predominantly used activity level to describe what their health rating meant to them, while the women predominantly used independence to relate meaning to their health rating. Both men and women identified age prescriptions or beliefs as they explained the meaning of health in their every day lives. The majority of women who used one or more of these themes to describe the meaning of their health were over the age of 74, not married, and had an education of at least high school. The men shared mixed characteristics that were almost evenly split in regards to age, marital status, and education.

Health Issues

From the in-depth interviews with the 30 older adults, it became evident that formal health discussions were not an a common practice for most families in the 1910's, 20's, and 30's. Twenty-eight of the 30 older adults said that health issues were not discussed in their families. They perceived that during the time they were growing up, families lived a different lifestyle and consequently were healthier than they are today. The majority of participants mentioned being a farm family, and contributed good health to an active lifestyle, good food, and warm clothes. Activity was a routine part of their life and occurred while working on the farm. Although not explicitly associating activity with something their parents did to try to keep them healthy, 23 of the 30 participants shared that their parents promoted exercise at home and in school and often made exercising a family event as parents actively played with their children. None of the older adults attributed their good health to diet, but instead used the term "good food." They referred

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to always having a bountiful supply of fresh fruits, vegetables, and meat to eat yearlong.   The men and women also explained that their parents kept them healthy by dressing them warm and making sure that they wore plenty of clothes in the wintertime.

Social expectations surrounding health emerged as the older adults contrasted their statement of being healthy with evidence of disease and illness. Although the men and women said that their families were healthy, they often reported having common childhood illnesses and watching parents and siblings die from diseases or lack of medical care. The older adults explained that when they were children there was a general acceptance that people got sick, there was limited formal medical care, and a person's recovery was often questionable. The response of Ingrid, a 77-year-old widowed woman, illustrates this finding.

Well, this was not something when I was growing up, that was, there were certain things expected because there was not shots to keep them from happening, you got inoculations against some things, but you expected to get measles and mumps and chicken pox and these kind of things and sometimes Diptheria was going around and you just fought these things with good food and home remedies, and hoped and prayed you didn't get it and if you did you lived through it. It was so different than it is today, and I had all that stuff. I didn't have Diptheria, but I did have measles and mumps and chicken pox and pneumonia a couple of times, which was not out of the ordinary when I was young.

Ingrid's description characterizes the experiences of all of the study participants. During this time period, people suffered from a variety of common illness, and if the illness was severe enough, death was often expected because there was no other alternative.

All of the participants mentioned that home remedies were used to cure every kind of problem, big or small. VICKS vapor rub, mustard plasters, external and internal liniments were

used to clear congestion and to cure the common cold or pneumonia. Kerosene was used to get rid of headaches, a mixture of turpentine and lemon juice, or moonshine and rock candy were used as cough medicine, and one man related how smoking rabbit tobacco cured his brother's Tuberculosis. Families relied on home remedies because doctors were rare, medical attention was expensive, and preventative measures such as chemotherapy or vaccines were not available. Doctors made home visits and only treated patients in serious conditions or near death situations. Other social influences mentioned by the older adults related to state of mind and age. Both men and women shared that everyone was expected to keep a positive frame of thought and hope for the best, but to be realistic as well and expect for old people to die.

Activity Level

Living an active lifestyle and being physically active was very important to the older adults and was illustrated through the meanings they associated with their health. Nine of the men, primarily between the age range of 67 and 73, explicitly described what their health meant in their everyday lives by providing examples of physical activities. Bert, a 71-year-old divorced man shared that his health meant that he could go square dancing and added that "Good health means you can get out here and walk for two miles or get out and play my guitar and banjo for three or four hours or if somebody needs some help doing something on their house, I might still do that." The four women who used activity level to explain what their health meant to them were predominantly all over the age of 74, had an education of high school or greater, were not married, and rated their health as good. These women gave more general answers to describe activity level such as being able to get up, move around, and walk. Gertrude, a widowed 75-year-old woman, was more specific in her response and said "Good health means I can still do my own housework and wash windows and dig in the garden and walk."

Independence

Independence emerged as an important theme as both the men and women depicted the meaning of their health. The older adults were proud that they could still manage on their own and were adamant about sharing the fact they could fully or minimally function independently. "Not having to depend on anybody else," being able to do things for yourself and others, or wanting to be able to do things for yourself but not being able were descriptions the older adults gave as they described their health. Although both men and women used the notion of independence to make meaning of their health, the women relied more heavily on this description than the men. Having the capability to do whatever they wanted, whenever they wanted was of extreme importance to the six women in very good and good health who associated their meaning of health with independence. The two women in fair and poor health expressed that their view of health came from their loss of independence and knowing that they could not completely care for themselves any longer. Elizabeth, an 81-year-old widowed woman, said that her poor health meant a having to depend on someone else, "I can hardly do things for myself or anyone else." Doris, a 94-year-old widowed woman, described her fair health as meaning she could not independently make the decision to live on her own, "Well, they wanted to put me in a home when I got out of the hospital. They tried to get me, I told them I wasn't going to no home, I was going back to my home."

Age Prescriptions

The men and women made meaning of their health through societal age stereotypes. An age belief that older people are expected to be in worse health was exhibited by Charlotte, an 86-year-old widowed woman, who emphasized the meaning of her good health by comparing it to her older sister's poor health.

It means a lot if you have got your health. My sister she is 90 years old, and she has had

pneumonia twice and she just can't seem to get her strength back. She gets up in the

morning and she is sick on her stomach.

The men who relied on age prescriptions were in fair or poor health, whereas the women

were in very good or good health. Two of these men held rather pessimistic beliefs about the

meaning of their health, equating growing old with poor health and death. Frank, a 71-year-old

divorced man, explained the meaning of his fair health rating by saying, "One foot in the grave

and the other foot on the banana peel." Similarly, Roy a 75-year-old divorced man, with poor

health said, "It means I ain't got much longer to live around here." Kate, a 67-year-old divorced

woman, provided a more positive outlook about her very good health while acknowledging the

loss of health that occurs with aging, she said "It's important you know as an older person, I

think you are just able to do a lot more if you have a positive attitude about yourself and your

health."

Summary of Results

The findings of the quantitative analyses, suggest that women and individuals with more

years of formal education rated their health better than men and individuals with fewer years of

formal education. Of the contextual variables examined, only age was a significant predictor of

external health locus of control. Individuals in the old-old age category (75 to 84 years old) held

stronger beliefs in an external chance health locus of control than persons in the young-old age

category (65-74 years old). There were no contextual differences found in the frequency in

which older adults typically call their doctors.

The qualitative findings support the older adults' self-assessments of health by exposing

the ways in which the men and women came to their health ratings. The three themes of

physical status, activity level, and social comparisons emerged based on the definitions the older

adults used to assess their health. Life course influences emerged through the older adults'

accounts of individual experiences and societal expectations regarding health. Differences

between age and gender were found within the themes of activity level, independence, and age

prescriptions, as the men and women described what their health meant to them.

CHAPTER V

Discussion

Introduction

In this chapter I summarize the findings of this research study. I point out the extent to which the results and findings support my hypotheses and are consistent with the research literature. An interpretation and explanation of the results and findings are also offered. Strengths and limitations of the research are addressed and implications for future research provided.

Summary of Findings

As the longevity of life increases, health and well-being have become an important concern for the majority of individuals. Self-assessments can provide physicians and practitioners as well as health and gerontological researchers useful information about how older adults perceive their health. However, to fully understand these health ratings, how individuals come to their health ratings must be exposed. In this study, I explored the underlying influences on health ratings and the meanings older adults attach to health by examining the contextual factors that influence health perceptions and behaviors, and identifying individual experiences and societal expectations of health throughout the life course.

There was partial support for the hypothesis that contextual factors predict self-rated health. Consistent with the research literature, gender, more specifically being female, was associated with higher ratings of health (Idler & Benyamini, 1997). Education approached significance suggesting that older adults with more years of formal education rated their health better than older individuals with fewer years of formal education. This finding supports the research literature that consistently states that high health ratings are associated with high levels

of education (Bosworth, et al., 1999). Education influences the overall knowledge base individuals have about health issues and traditional medical practices.

Qualitative findings enhanced the single item self-rating of health and provided insight as to how the older adults decided on their rating. Physical status, activity level, and social comparisons were the three indicators that the men and women used to define their health. Illustrative of the life-span perspective, the men and women defined and rated their health according to their life stage (Baltes, 1987; Erickson, 1982; Spiro, 2001). Progression through individual life stages molded the personal and social contexts from which the older adult developed their current health perceptions. The qualitative findings revealed that gender and age played an influential role in the determination of the older adults' definition of health. Regardless of their single item health rating, both men and women from the young-old and old-old age groups, relied most heavily on physical status to define their health. This finding reflects the continuum of health behaviors and beliefs throughout the life-span. The importance placed on physical status in the older adults' definitions of health was also placed on physical status in the older adults' descriptions of how they maintained healthy lifestyles as children.

There was little support for the hypothesis that stated that contextual factors would predict older adults' health locus of control (IHLC, PHLC, and CHLC) scores. Age was a significant predictor of CHLC, with individuals aged 75 to 84 reporting stronger beliefs in an external chance health locus of control than persons aged 65 to 74. Education approached significance as a predictor of PHLC and CHLC, suggesting that older adults with fewer years of formal education rely more on an external health locus of control from powerful others and chance health locus of control than older individuals with more years of formal education. This finding supports previous research that suggests internal health locus of control is associated

with higher education (Cicirelli, 1980). Education increases knowledge about health processes and outcomes giving older adults more control over their own health. Having fewer years of formal education may limit knowledge about health, and lead to a decrease in perceived control over health, thus increasing reliance on external sources (Wallhagen, et al., 1994).

The third hypothesis, that there will be differences in the frequency in which older adults typically call their doctors according to gender, age, education, and marital status, was not supported. Reasons for the lack of significant findings may be due to the homogeneous nature of the study sample. The participants were predominantly White, male, and veterans of the military. This shared background may have limited variation among participants' responses. In addition, I selected question items to test this hypothesis that were previously alluded to in the research literature, but not verified. These items may not have been sensitive enough to differentiate everyday influences on health behaviors.

The second research question provided a more in-depth understanding of the meaning of health older adults established throughout their life. As suggested by the life course perspective, the older adults were influenced by their past health experiences (Elder, 1978). The descriptions of activity level, independence, and age prescriptions reflected the childhood experiences of the older adults. The older adults developed their meanings of health through multiple social contexts including their families of origin and the larger society. Micro and macro influences on the individuals' perceptions of health emerged as the older adults were growing up and becoming aware of health issues in their own families and society (Bengtson & Allen, 1993). Transitions between childhood and older adulthood proved to maintain similar perspectives on health as the participants relied on health issues discussed in childhood to make meaning of their health in later adulthood (Elder, 1985).

The finding that women rate their health better than men may be a result of women being more involved in health care than men (Pinquart & Sorensen, 2001). Women are typically the caregivers in the family and deal with the illnesses experienced by their children and partners throughout life, perhaps making them more aware with their own health. The finding that individuals who have more years of formal education rate their health better than individuals who have fewer years of formal education reflects the knowledge that schooling brings. Older adults who have an education of at least high school are more aware of health prevention strategies and resources available to maintain their health than older adults who do not have a high school education (Hirdes & Forbes, 1993).

Study Limitations

The limitations of this study are indicative of the small and homogeneous sample. The larger clinic sample of 111 participants consisted of mostly married, White men. Male participants from the in-depth interviews also shared similar characteristics. The vast majority of the 11 older women who participated in the follow-up interviews were over the age of 74, not married, and had an education of at least high school. The use of a larger, more diverse sample would provide the opportunity to further explore the relationship among the study variables.

The limitation of a secondary data set was also apparent in this study as I was not able to enhance the hypotheses predicting contextual influences on multiple health locus of control and differences in calling the doctor because the older adults did not provide sufficient information regarding these issues in their qualitative narrative. Although I was able to gain insight into the health perceptions and practices of the participants over their life course, they did not share much about their health in their middle adulthood years. The men and women focused mostly on their childhood health experiences and then on their health as older adults. Participants were vague in

their responses to health in middle adulthood, and did not focus their attention on health until they were experiencing health problems in late adulthood.

Future Research Implications

The strength of this study is that I was able to ascertain how the older adults developed their health rating and explain the meanings they attached to their health. The findings provide a more inclusive picture of the older adults' health status than is presented in previous research studies. Because the study sample were Veterans, they all were eligible for health care through the Veterans Affairs Hospital. Thus, the findings are limited to older adults who had access to health care resources. Researchers committed to this line of inquiry need to collect data from the general population of older adults to ensure a more representative sample. Given the growth of older adults with increasingly diverse backgrounds, contextual issues surrounding race, ethnicity and economic status that could not be addressed in this study should be considered in future examinations of older adults' self-assessments of health (Schoenberg, 1997).

Further inquiry regarding health behaviors, practices, and beliefs that affect when and why older adults visit their physician should also be investigated to improve access and use of formal health care. Replication and repetition of research studies exploring life course influences on health meanings is necessary to increase understanding of how older adults relate to health care professionals and practices. Older adults hold information about their health that is inaccessible from any other source (Idler, 1999). Sensitivity and awareness of this important knowledge base by caretakers, community workers, and health care professionals is crucial in the process of helping older adults to maintain functional health and ultimately productive, independent, and fulfilling lives (Duffy & MacDonald, 1990).

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Clinic Interview Questions

Appendix A

I. <u>Health Demographics</u>

1. Are you:
_(1)_ female
_(2)_ male

2. What is your date of birth?
____/____/____
(month/day/year)

3. Do you consider yourself:
_(1)_ Caucasian/White
_(2)_ African-American/Black
_(3)_ Hispanic
_(4)_ Native American
_(5)_ Asian/Pacific Islander
_(6)_ Other: _____

4. Are you presently:
_(1)_ married
_(2)_ widowed
_(3)_ divorced/separated
_(0)_ never married

5. How many years of school did you complete?
years.

6. What was your overall income (from all sources) last year before taxes?
_(1)_ less than $25,000
_(2)_ between $25,000 and $50,000
_(3)_ over $50,000

7. Who lives with you? **0 = no 1 = yes**
_ no one (a)   _parent(s)
_ spouse (b)   _brother/sister
_ son (c)   _other relative
_ daughter (d)   _friend
_ son-in-law (e)   _other
_ daughter-in-law (f)

8. How many living children do you have?
sons   **#** daughters

9. How many living siblings do you have?

brothers   **#** sisters

10. How many close friends do you have?

#

Do you currently have any of the following illnesses or conditions?	Yes (1)	No (0)
1. Arthritis		
2. High Blood Pressure		
3. Heart Problems		
4. Circulation Problems		
5. Diabetes		
6. Digestive Difficulties		
7. Dizziness		
8. Allergies		
9. Frequent Headaches		
10. Sinus Problems		
11. Osteoporosis		
12. Stomach Ulcer		
13. Chronic Pain		
14. Other: (describe)		

II. Support Information

Whom are you likely to talk with about ('X' all that apply): 0 = no 1 = yes

	No one	Spouse	Child	Grandchild	Sibling	Friend
1. General health issues	a	b	c	d	e	f
2. Specific health problems						
3. Seeing a doctor						
4. Taking medications						

5. Recommendations of doctor						
6. How to carry out recommendations of doctor						

1. How did you arrive at the medical center/hospital today?

      _(1)_ drove self
      _(2)_ driven by other
      _(3)_ public transportation
      _(4)_ transportation provided by hospital, medical center
      _(5)_ other

2. Who made your appointment for today?

      _(1)_ VA staff during last visit
      _(2)_ called for appointment myself
      _(3)_ spouse
      _(4)_ child
      _(5)_ grandchild
      _(6)_ other, **who?** _____

3. Did anyone come with you today?

      _(1)_ yes
      _(0)_ no

4. If someone came with you today, who is this person?

      _(1)_ spouse
      _(2)_ child
      _(3)_ grandchild
      _(4)_ health care worker
      _(5)_ other, **who?** _____
      (8) N/A

III. Health Behaviors

Do you typically call your doctor:	Never (0)	Sometimes (1)	Always (2)
1. At the first sign of a new physical problem			
2. At the first sign of a recurring physical problem			

3. When you believe your condition is serious			
4. When you are feeling sad or blue			
5. When another person, such as a family member or friend, suggests that you do			

Is your decision to seek medical attention influenced by:	None of the time (0)	Some of the time (1)	Most of the time (2)	All of the time (3)
1. Transportation				
2. Cost				
3. Religious beliefs				
4. How long the problem has been bothering you				
5. Inability to resolve the health problem by yourself				
6. Being afraid of what you might find out				
7. Advice from family				
8. Advice from friends				
9. Your past experiences with doctors				
10. Family or friends past experiences with doctors				
11. Events/people in the media				
12. Information from the Internet (Web)				

IV. Health Perceptions

1. In general, would you say your health is:

    _(4)_ excellent
    _(3)_ very good
    _(2)_ good
    _(1)_ fair
    _(0)_ poor

Health Locus of Control Responses:
1 = Strongly Disagree   4 = Slightly Agree
2 = Moderately Disagree   5 = Moderately Agree
3 = Slightly Disagree   6 = Strongly Agree

_____ 1. If I get sick, it is my own behavior which determines how soon I get well again.

_____ 2.. No matter what I do, if I am going to get sick, I will get sick.

_____ 3. Having regular contact with my physician is the best way for me to avoid illness.

_____ 4. Most things that affect my health happen to me by accident.

_____ 5. Whenever I don't feel well, I should consult a medically trained professional.

_____ 6. I am in control of my health.

_____ 7. My family has a lot to do with my becoming sick or staying healthy.

_____ 8. When I get sick, I am to blame.

_____ 9. Luck plays a big part in determining how soon I will recover from an illness.

_____ 10. Health professionals control my health.

_____ 11. My good health is largely a matter of good fortune.

_____ 12. The main thing which affects my health is what I myself do.

_____ 13. If I take care of myself, I can avoid illness.

_____ 14. Whenever I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.

_____ 15. No matter what I do, I'm likely to get sick.

_____ 16. If it's meant to be, I will stay healthy.

_____ 17. If I take the right actions, I can stay healthy.

_____ 18. Regarding my health, I can only do what my doctor tells me to do.

Guided Interview

Appendix B

Background

1.   Who is in your immediate family? (*probe: spouse/partner, children, siblings, parents*)
         Do they live nearby? How often do you see or talk to your family members?

Health & Family History

As you know, we are interested in the health and well being of older adults. I thought we might start by talking about your recollections of health and illness as a child growing up:

3.   Did your family discuss health issues much?
         - **If no:** why do you think that was the case?
         - **If yes:** what did you talk about?

         - How did your parents respond when you had minor health problems as a child, like a cold or the flu?

         - Did your parents do anything special to try to keep you healthy when you were a child? *[probe: lifestyle? Diet? Exercise? About going to the doctor? Home remedies? Preventative measures?]*

         - Did you or any of your siblings have any major illnesses or health problems as children?
         - **If yes:** how did your parents respond? How did you respond?

4.   What types of things did your parents do for themselves to stay healthy ? *[probe: lifestyle? Diet? Exercise? About going to the doctor? Home remedies? Preventative measures?]*
         - Did your parents or other members of your family (aunts, uncles, grandparents) have any health problems that you remember while you were growing up?
         - **If yes:** what did they do about them? Prior to (problem), were they concerned about their health? What was your response to the illness? Did their health problems impact how you take care of your health?

         - As older adults, did your parents have any health problems?
         - **If yes**: what did they do about them? Prior to (problem), were they concerned about their health? What was your response to the illness? Did their health problems impact how you take care of your health?]

5. As a young and middle-aged adult yourself, how did you manage your health and any health problems? *[probe: about going to the doctor? Home remedies? Preventative measures?]*

Current Health

6. How would you describe your health at the present time - excellent, good, fair, poor? How did you decide on that rating? What does [_____ health] mean to you? *(probe for what influences their decisions.)*

7. When you notice a change in some aspect of your health, do you usually try something on your own first or do you go to a doctor? *(if do something on own, ask for examples of what they do)*

8. When you completed our questionnaire at the VA Clinic in November, you indicated that you experienced chronic conditions, including _____, _____, _____, _____, _____, _____, and _____.

    A. Of these conditions, which one(s) give you the most problems and/or have caused you to make changes in your everyday life? *[if names more than one, ask following questions for each condition]*

    B. When did you first notice symptoms? (Or when did your doctor discover it, or when did it occur [if acute onset])?
   - **If symptoms**: did you go to your doctor right away or did you try taking care of it yourself? If self, what did you do?

    C. Are there things you do *[or don't do]* for your [condition] that your doctor recommend(s/ed)?

    D. Do you have any home remedies or things you do on your own to help you manage your [condition]?

    E. Do family members or friends help you manage your [condition] or help you with things that you can no longer do? How?

    F. What kinds of changes has [condition] caused in your everyday life? *[probe for changes in life-style - ability to function, carry out activities of daily living; feelings about yourself; relationship and interactions with family and friends]*

Family/Friend Involvement

Now, I'd like to ask you some questions about who you discuss health issues with and their reactions:

9.   Do you discuss your *[CONDITON(S) THAT RESPONDENT REPORTED GIVING HIM/HER THE MOST PROBLEMS]* with anyone in your family or maybe a friend?
   - **If yes:**
     a. Who? [get relationship(s)]. Why do you discuss your [condition] with this particular person(s)?

     b. Do you discuss your other conditions or general health concerns with this person(s) as well? Why or why not?

     c. Thinking back to the last time you discussed your health with [person], what did you talk about? What did he/she say or do?

     d. Does [person] typically share information about [his/her] health with you? *If so, what do you say?*

   - **If no**: Do you ever talk with anyone about your [condition]? What about any other health issues and concerns you may have?
   - **If no:** Why not?
   - **If yes:** What do you typically talk about?

10.   Is there anyone you used to talk to about your health, but don't any more?
   - **If yes:** who? And why don't you talk to that person any longer?

11.   Do your health problems or conditions ever cause any conflicts or problems between you and your family members or friends? *(probe: can't cook any more so your family gets mad or does not understand, family/friends just don't understand, don't interact with family/friends in the same way)*

12.   Do any of your family members or friends ever do anything that makes it difficult to manage your health problems? *(probe: for example, has chocolate in the house when you are not supposed to have candy? or is there anything that you like to do but that [person] will not let you do yourself?)*
   - **If yes:** please describe *[probe - who, frequency, resolution]*. Anything else?

13.   Overall, what would be different in your life if you did not have [problematic conditions]?

Future Care

14.   This question has to do with your future health care needs: If, in the future, your health declines and you could not manage on your own, WHO would you look to for help and WHY? *[probe - specific family member, friends, in-home services, institutional care]*. Have you discussed your plans with any one? If yes, how did they react?

Final Coding Scheme

Appendix C

1.0   Informal Network Members (Inference must be clear or must ID members)
        1.1   Spouse/Partner
        1.2   Children/Son & Daughter-In-Laws
        1.3   Siblings/Sister & Brother-In-Laws
        1.4   Parents/Parent-In-Laws
        1.5   Other Relatives
        1.6   Friends/Neighbors
        1.7   Family Members (general)

2.0   Informal Network Connections (Process/Interaction code)
        2.1   Contact (frequency/type)
        2.2   Closeness (words & meanings)
        2.3   Health Communications
        2.4   Health-Related Assistance/Support
        2.5   Health-Related Conflicts (i.e., relationship problems, difficulties, contentions)

3.0   Health History (Past)
        3.1   OA Childhood Conditions/Illnesses
        3.2   OA Adulthood Conditions/Illnesses
        3.3   Health of Other Family Members (Past – not interested in present)
        3.4   Health of Friends/Neighbors
        3.5   Family Remedies (product/ "thing", e.g., aspirin, Vic's)
        3.6   Response to Illness (e.g., practices, emotional response)
        3.7   Preventative Practices
        3.8   Formal Health Care
        3.9   Changes in/Influences on Daily Life

4.0   OA Current Health Problems and Practices
        4.1   Condition/Illness
        4.2   Definition of Health
        4.3   Self Diagnosis
        4.4   Health Beliefs (beliefs/attitudes about own care, e.g., 'just lucky,' can be belief resulting from others' illness)
        4.5   Health Behaviors (some action related to health, e.g., diet, exercise, home remedies, behavioral response to others' illness or illness of self)
        4.6   Continuation of Past Behaviors
        4.7   Prescribed Medical Regimes (clearly or implicitly from HCP)
        4.8   Changes in/Influences on Daily Life (i.e., because of own health)
        4.9   Formal Health Care/Service Use (due to health)

5.0   Future Health Care

Participant Information

Appendix D

	P#	Age	Education	Marital Status
Men				
Very Good	25	71	=hs	Nm
	31	67	<hs	M
	76	83	<hs	Nm
Good	23	71	miss	Nm
	64	71	miss	Nm
	73	73	=hs	M
	77	73	<hs	Nm
	95	77	>hs	M
Fair	5	70	<hs	Nm
	28	67	<hs	Nm
	32	71	=hs	Nm
	34	66	>hs	Nm
	44	71	=hs	M
	54	80	<hs	M
	71	82	>hs	M
	74	80	<hs	M
	87	67	<hs	M
Poor	80	78	>hs	M
	94	75	<hs	Nm
	P#	Age	Education	Marital Status
Women				
Very Good	8	86	=hs	Nm
	26	69	=hs	M
	72	67	>hs	Nm
Good	6	81	>hs	Nm
	7	66	=hs	Nm
	41	75	>hs	Nm
	50	65	>hs	Nm
	57	77	=hs	Nm
Fair	10	94	=hs	Nm
	55	77	=hs	Nm
Poor	18	81	<hs	Nm

Hypothesis 1: Physical Status

Appendix E

	P#	Age	Education	Marital Status
Men				
Very Good (2)	25	71	=hs	Nm
	76	83	<hs	Nm
Good (5)	23	71	miss	Nm
	64	71	miss	Nm
	73	73	=hs	M
	77	73	<hs	Nm
	95	77	>hs	M
Fair (8)	5	70	<hs	Nm
	28	67	<hs	Nm
	32	71	=hs	Nm
	34	66	>hs	Nm
	44	71	=hs	M
	54	80	<hs	M
	71	82	>hs	M
	87	67	<hs	M
Poor (2)	80	78	>hs	M
	94	75	<hs	Nm
	P#	Age	Education	Marital Status
Women				
Very Good (2)	8	86	=hs	Nm
	72	67	>hs	Nm
Good (2)	6	81	>hs	Nm
	7	66	=hs	Nm
Fair (1)	55	77	=hs	Nm
Poor (1)	18	81	<hs	Nm

Hypothesis 1: Activity Level

Appendix F

	P#	Age	Education	Marital Status
Men				
Very Good (0)				
Good (2)	73	73	=hs	M
	77	73	<hs	Nm
Fair (3)	5	70	<hs	Nm
	34	66	>hs	Nm
	71	82	>hs	M
Poor (1)	80	78	>hs	M
	P#	Age	Education	Marital Status
Women				
Very Good (0)				
Good (2)	6	81	>hs	nm
	7	66	=hs	nm
Fair (2)	10	94	=hs	nm
	55	77	=hs	nm
Poor (0)				

Hypothesis 1: Social Comparison

Appendix G

	P#	Age	Education	Marital Status
Men				
Very Good (1)	31	67	<hs	M
Good (2)	64	71	miss	Nm
	95	77	>hs	M
Fair (3)	44	71	=hs	M
	54	80	<hs	M
	71	82	>hs	M
Poor (0)				
	P#	Age	Education	Marital Status
Women				
Very Good (0)				
Good (1)	6	81	>hs	nm
Fair (0)				
Poor (0)				

Research Question 2: Activity Level

Appendix H

	P#	Age	Education	Marital Status
Men				
Very Good (2)	25	71	=hs	Nm
	31	67	<hs	M
Good (4)	23	71	miss	Nm
	73	73	=hs	M
	77	73	<hs	Nm
	95	77	>hs	M
Fair (3)	28	67	<hs	Nm
	71	82	>hs	M
	87	67	<hs	M
Poor (0)				
	P#	Age	Education	Marital Status
Women				
Very Good (0)				
Good (3)	6	81	>hs	nm
	41	75	>hs	nm
	50	65	>hs	nm
Fair (0)				
Poor (1)	18	81	<hs	Nm

Research Question 2: Independence

Appendix I

	P#	Age	Education	Marital Status
Men				
Very Good (0)				
Good (3)	23	71	miss	Nm
	77	73	<hs	Nm
	95	77	>hs	M
Fair (3)	28	67	<hs	Nm
	34	66	>hs	Nm
	74	80	<hs	M
Poor (0)				
	P#	Age	Education	Marital Status
Women				
Very Good (1)	26	69	=hs	M
Good (5)	6	81	>hs	nm
	7	66	=hs	Nm
	41	75	>hs	nm
	50	65	>hs	nm
	57	77	=hs	Nm
Fair (1)	10	94	=hs	nm
Poor (1)	18	81	<hs	Nm

Research Question 2: Age Prescriptions

Appendix J

	P#	Age	Education	Marital Status
Men				
Very Good (0)				
Good (0)				
Fair (1)	32	71	=hs	Nm
Poor (1)	94	75	<hs	Nm
	P#	Age	Education	Marital Status
Women				
Very Good (2)	8	86	=hs	Nm
	72	67	>hs	Nm
Good (1)	6	81	>hs	nm
Fair (0)				
Poor (0)				

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EDUCATION

M.S.   Human Development
Area: Family Studies
Certificate: Gerontology
Virginia Polytechnic Institute and State University**,**
Blacksburg, Virginia
Graduation Date: May, 2002

B.S.   Family Child Development
Area: Human Services
Virginia Polytechnic Institute and State University,
Blacksburg, Virginia
May, 2000

PROFESSIONAL EXPERIENCE

Graduate Position

8/00-12/00   **Co-Instructor**
Department of Human Development
Virginia Polytechnic Institute and State University, Blacksburg, Virginia
- Undergraduate Course, Community Programs in Family Life

8/00-Present   **Graduate Research Assistant**
Center for Gerontology
Virginia Polytechnic Institute and State University, Blacksburg, Virginia
- Conducted face-to-face interviews with 30 older adults
- Managed and analyzed quantitative and qualitative data
- Performed library research
- Assisted with editing and updating <u>Community Resources for Older Adults</u> (1998) Robbyn R. Wacker, Karen A. Roberto, and Linda E. Piper

Administrative Positions

5/00-8/00   **Childcare Provider**
Children ages one to five
Clients: Terry Cyr and Mary Stewart Murphy, Richmond, Virginia
- Provided quality care and activities for children

5/99-8/99   **Summer Intern**
Crisis Pregnancy Center,
Richmond, Virginia
- Counseled women about pregnancy, childbirth, and parenting
- Assessed needs of clients regarding material goods
- Led a child birthing class with certified nurse for 15 couples

7/98-8/98   **Human Resources Secretary**
First Union Bank Headquarters,
Richmond, Virginia
- Answered 10 telephone lines and took messages for executives
- Transferred calls to custumer service representatives
- Promoted work related activities through various media creations

5/97-8/97   **Activity Director**
Hillside Low-Income Family Center,
Richmond, Virginia
- Coordinated and taught programs for pre-school, elementary, and middle school aged children
- Presented creative projects in order to stimulate learning
- Initiated teamwork and respect between colleagues and families

5/94-8/96   **Oral Surgeon Assistant**
Jeffrey E. Cyr, D.D.S., M.D.,
Brandermill, Virginia
- Assisted with medical procedures
- Prepared patients for surgery
- Filed insurance claims for patients

PROFESSIONAL PRESENTATIONS

Conference Proceedings

Kretzer, S. E. & Artale, L. M. (2001). *Understanding the meaning of health and illness in the lives of older women*. Quint State Family, Child Development Conference. Greensboro, NC.

Teaster, P.B., Roberts, J., & Kretzer, S. E. (2001). *The many faces of elder abuse.* Virginia Coalition for the Prevention of Elder Abuse Annual Conference, Virginia Beach, VA.

Kretzer, S.E., Roberto, K.A., & Artale, L.M. (2001). *A life course view of older women's health behaviors.* The Gerontological Society of America's Annual Conference. Chicago, IL.

Fruhauf, C.A., Kretzer, S.E., Gozali, T., & Mehta, S. *Great-gramdparents and great-grandchildren: Factors that contribute to the relationship.* The Gerontological Society of America's Annual Conference. Chicago, IL.

PUBLIC PRESENTATIONS

Artale, L. M. & Kretzer, S. E. (2001). *A life course view of present day health behaviors of older women.* College of Human Resources and Education Graduate Research Presentation Day. Blacksburg, VA.

PROFESSIONAL INVOLVEMENT

Memberships

Gerontological Society of America, 2000-present
- Student Volunteer, 2000 National Conference

National Council on Family Relations, 2000-present

Service

Aging Task Force, Virginia Polytechnic Institute and State University, 2000
- Student Member

Sigma Phi Omega, National Honor Society, Virginia Polytechnic Institute and State University, 2000-present
- Treasurer, 2001-02

Recruiting Student Volunteer Program, Virginia Polytechnic Institute and State University, 1999-2000

Special Olympics, Blacksburg, Virginia, 1999-2000

Volunteer, Heritage Hall Nursing Home, Blacksburg, Virginia, 2000

Awards and Honors

Peggy Lavery Award for Gerontology, 2001
Sigma Phi Omega, National Academic Honor and Professional Society in
Gerontology, 2000
Dean's List, 2000
Dean's List, 1999
Commonwealth Award, 1996