

THE PERCEIVED HEALTH NEEDS AND STATED PERFORMANCE OF
HEALTH ACTIVITIES OF OLDER ADULTS AND THEIR
EXPECTATIONS OF ASSISTANCE FROM
HEALTH CARE PROVIDERS

By

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE
IN NURSING

College of Nursing

1982

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ABSTRACT

THE PERCEIVED HEALTH NEEDS AND STATED PERFORMANCE OF HEALTH ACTIVITIES OF OLDER ADULTS AND THEIR EXPECTATIONS OF ASSISTANCE FROM HEALTH CARE PROVIDERS

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A descriptive study was conducted to identify relationships among older adults' perceptions of changing health needs, their stated performance of activities to maintain their health and overcome health needs, and their expectations of assistance with health needs and activities from health care providers.

Data were collected by means of a self-administered instrument from 56 independent older adults aged 65 to 89 who perceived themselves to be in good health and resided in subsidized housing or were volunteers in the community. Frequency distributions and Pearson product-moment correlation coefficients were obtained for all study variables.

There were no relationships between performance of health activities and health needs or expected assistance but were significant relationships between health needs and expected needs assistance ($r=.60$, $p=.001$) and expected activities assistance ($r=.45$, $p=.001$).

In conclusion, nurses must assist older adults to direct health activities toward meeting health needs, thereby maximizing independence in late adulthood.

To Johnny and Jack, with all my love,
and in memory of my mother.

ACKNOWLEDGMENTS

As I complete this segment of my professional education I find there are so very many persons without whom I would not have reached this goal. I surprised myself that age 40 I could complete a Masters thesis and still be as enthusiastic at the end of the road as I was when I took the first step. For the personal and academic support which helped maintain my positive attitude I am especially grateful to:

The Junior League of Lansing and to the 60+ Health Center for fostering my interest in primary care for older adults.

Dr. Barbara Given, my program and committee chairperson, with a very special note of thanks for her continuing encouragement, support, guidance, and counsel throughout my graduate program. As my mentor and role model she assisted me to exceed my own personal and professional expectations.

Brigid Warren, JoAnn Westrick, and Sr. Mary Honora Kroger, my committee members, for their expert guidance and advice regarding the research process and the field of gerontology. They shared my belief that gerontological nursing is exciting and vital.

To LeAnn Slicer for all the extra assistance she gave me throughout my years in graduate school. Without her I would still be far behind in all the paperwork.

The management and residents of Serenity Place, Somerset, Tamarack, and Washington Park for their assistance with data collection and to Kathy Jones from St. Lawrence Hospital's Health Education Department and her senior volunteers for their participation in the research project.

To Rob Hymes for his patience, sense of humor, and encouragement while assisting me to interpret and analyze the data. He explained what I did not understand and made statistics comprehensible.

To my neighbor and friend Pam Buehler for becoming Johnny's second mother when I could not be at home.

Above all, I am especially grateful to my husband Jack, and son John who not only put up with my frustrations, disappointments, short temper, and absences from home during the past three years, but made our home a haven for me to return to through their ever-present love and patience.

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CHAPTER I
THE PROBLEM
Introduction

The elderly population is the fastest growing segment of the population in the United States. As of July 1, 1978, 11% of American citizens (24.1 million persons) were over 65 years of age. Women outnumbered men in 1978 by 4.5 million (U.S. Department of Commerce, 1979). By the year 2020 it is projected that the percentage of older adults could increase to 25%.

In 1977, one of every 10 couples where the head of the household was a husband over age 65 had an annual income less than \$4,000. The median income for all such families was \$9,110. The median income of single older adults living alone or with non-relatives was \$3,829. Persons over age 65 living below the poverty level numbered 3.2 million or 14.1%. Of these persons, 27% were living alone or with non-relatives as compared to only 8% living in families. About 80% of unrelated persons over age 65 reported no income from earnings and were primarily dependent on Social Security income, either exclusively or in combination with sources of income other than earnings (U.S. Department of Commerce, 1979).

In 1977 the older adult accounted for 29% (\$41 billion) of all personal health care expenditures. Their average health bill was \$1,745 compared to \$661 for younger adults. Medicare and Medicaid accounted for two-thirds of the health expenditures. Individuals paid 26% directly (U.S. Department of Health and Human Services, 1979).

The elderly consume 25% of all prescription drugs. While 5% of older adults live in institutions, 95% live in the community and 81% are physically capable of being independent. It is estimated that 86% of persons 65 and older and 72% between ages 45 and 65 have one or more chronic conditions. Acute illnesses are more serious in older persons because they may not have the physical reserve to counteract them. Untreated these acute illnesses may lead to chronic disability or unnecessary death (Butler, 1975).

Society in general places a low social value on being aged as compared to being in other age groups (Butler, 1975; deBeauvoir, 1972; Kalish, 1977). Kalish (1977) reports this is not so much that we have a youth-oriented society but that Americans value productivity, independence and the concept of futurity, all attributes the older adult seems to have in lessening amounts. In 1975 the National Council on the Aging (NCOA) commissioned the Harris organization to poll Americans in an attempt to determine attitudes toward aging. Some of the relevant results of this study were, first, while 25% of older persons felt their life was worse

now than what they had expected, 75% felt it was better. Secondly, while 51% of the public thought "good health" was a problem for the aged person, only 15% of the older adults surveyed found this a personal problem. Of the total public, 67% believed that older persons spent a lot of time watching television but only 36% of older persons reported they did. A fourth finding revealed that the general public felt only 41% of older persons were very physically active but 48% of persons over 65 reported they were. Lastly, 80% of the older persons polled expressed satisfaction with their past life, 75% felt their present life was as interesting as ever, and over 50% were making plans for the future. One of the conclusions made by the NCOA as a result of this study was that most older adults in the United States have the desire and the potential to be productive, contributing members of society (Kalish, 1977). Unfortunately, most health care providers share society's negative attitude toward older persons and do not recognize the potential for growth possessed by the majority of older adults.

Various authors (Butler, 1975; Kalish, 1977; Lenzer, 1977) have cited surveys of health professionals and have concluded that generally, these health care providers feel they have little to learn from the old and that most diseases older persons develop are untreatable. The health care system is oriented toward acute illnesses. Often older

adults have a multiple set of chronic conditions and treatment regimens for one condition may be contra-indicated for another. While there is a shortage of health care agencies in the inner-city, rural areas, and small towns, most communities have a health care system with the potential to aid the older person. In general, few agencies and/or providers assess individual and family needs, determine how best they can be met, and help persons obtain appropriate services. For the older adult, this can hasten loss of independence. Most agencies are independently administered and linkages between them are fragile or non-existent. Individual health care providers are often not aware of the services available to older adults through other community agencies. This results in fragmentation of information and services and inadequate provision of care to many older adults who might retain their independence with additional assistance in one aspect of their lives. Economic programs (such as Medicare) aimed at assisting the older adult to obtain health care assistance are often inadequate. Preventive services are not often covered by third-party payers and therefore older adults only seek services when ill at which time treatment may be lengthy and expensive.

Depending on the older adult's perceptions of health needs and benefits of health activities, he will seek to maximize his capacity to function. Kalish (1977) states however, that gerontologists have observed that negative

attitudes and even a sense of resignation may decrease an individual's willingness to follow prescribed health care regimens. An older adult may ignore medications, not eat properly, become careless, or get insufficient exercise. Mental attitudes may also affect body processes such as digestion, elimination, respiration, and cardiovascular function. Lenzer states that many older persons feel their symptoms are normal results of aging and do not seek assistance (Kalish, 1977). Gerontologists report, however, that much of what has long been called "aging" is now known to be disease and is possibly preventable or able to be retarded but certainly is treatable (Butler, 1975). Other older adults are aware they need help but have no knowledge or energy required to reach health care services. Some older persons lack the skills needed to manipulate the system to their advantage in order to meet their needs.

In addition to the factors mentioned above (economics, complexity of health problems, attitudes, knowledge, and health care system structure and organization) transportation is often difficult. Those individuals with a limited fixed income find it increasingly economically unfeasible to maintain a personal car. Older adults unable to drive often find it difficult to obtain and/or negotiate public transportation.

In the investigator's professional practice with older adults in primary care settings it has been observed

that these clients are usually aware of decreasing functional status, would like to do something about it but frequently do not think anything can be done or do not have the resources to obtain assistance. Maintenance of independence is dependent on the ability to function in all areas of daily activities. Adaptation to changing functional status is necessary as aging progresses.

All of these factors underscore the need to increase and support effective self-care activities of older adults to maintain health and functional ability. From a nursing orientation, Ebersole and Hess (1980) recommend that the first step is to survey the health needs of older adults from their perspective and assess their reactions to the care they are receiving. Moses (1981) proposes since most older persons are eager for knowledge about their health, nurses can be effective in assisting them to assume more responsibility for their health. Therefore, there is a need to study the combined issues of perceptions of older adults regarding their health needs which might affect functional status, their performance of health activities to maximize functional capability, and the extent of assistance older adults expect to receive from health care providers.

Purpose

A review of the literature reveals that much research has been done regarding health needs of the elderly (Belloc

& Breslow, 1972; Mancini & Orthner, 1980; Parkerson, Gelbach, Wagner, James, Clapp, & Muhlbauer, 1981; Haney, Stephens, Cooper, Oser, & Blau, 1981; Moore & Fillenbaum, 1981; Fuller & Larson, 1980; Denniston & Jette, 1980; Jette & Branch, 1981; and Katz, 1970). Aho (1979) studied the ability of older adults to perform the preventive self-care activity of inoculation against influenza. Data exist regarding the use of various health care facilities by older adults (Archer, 1968; Sivertson, 1978; Brody & Kleban, 1981; Snider, 1981; Haug, 1981). Hain and Chen investigated health condition, physical functioning and access to medical care among older adults (Hain & Chen, 1976). In order to understand the capability of older adults to actively participate in their own health care it appears there is a need for a descriptive study exploring the relationships between the three areas perceived health needs (present and future), stated performance of health promoting activities, and expectations of assistance with health needs and activities.

The purpose of this research is to identify and describe the relationships among the perceived health needs and stated performance of health activities of independent older adults, and the extent of health care assistance expected from health care providers.

Statement of the Problem

In this study the researcher will address the following questions:

1. What are the perceived health needs of older adults?
 - 1a. What are the perceived physical health needs of older adults?
 - 1b. What are the perceived socioeconomic health needs of older adults?
 - 1c. What are the perceived psychological health needs of older adults?
2. What health activities do older adults state they perform to maintain their health and overcome health problems?
 - 2a. What health activities do older adults state they perform to maintain physical health?
 - 2b. What health activities do older adults state they perform to maintain socioeconomic health?
 - 2c. What health activities do older adults state they perform to maintain psychological health?
3. What is the extent of assistance older adults expect to receive from health care providers to meet these health needs or perform these health activities?
4. What is the relationship between perceived

health needs of older adults and stated performance of health activities?

4a. What is the relationship between perceived physical health needs of older adults and stated performance of health activities to maintain physical health?

4b. What is the relationship between perceived socioeconomic health needs of older adults and stated performance of health activities to maintain socioeconomic health?

4c. What is the relationship between perceived psychological health needs of older adults and stated performance of health activities to maintain psychological health?

5. What is the relationship between perceived health needs of older adults and the extent of assistance expected from health care providers?

5a. What is the relationship between physical health needs of older adults and the extent of assistance expected from health care providers?

5b. What is the relationship between socioeconomic health needs of older adults and the extent of assistance expected from health care providers?

5c. What is the relationship between

psychological health needs of older adults and the extent of assistance expected from health care providers?

6. What is the relationship between stated performance of health activities of older adults and the extent of assistance expected from health care providers?

6a. What is the relationship between stated performance of activities of older adults to maintain physical health and the extent of assistance expected from health care providers?

6b. What is the relationship between stated performance of activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers?

6c. What is the relationship between stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected from health care providers?

The answers to these questions will provide a basis for further studies and interventions directed toward improving the health status of older adults. From these questions hypotheses are generated depicting the concepts in the study.

Conceptual Hypotheses

1. There is a positive relationship between perceived total health needs and stated performance of health activities of older adults.
 - 1a. There is a positive relationship between perceived physical health needs of older adults and stated performance of health activities to maintain physical health.
 - 1b. There is a positive relationship between perceived socioeconomic health needs of older adults and stated performance of health activities to maintain socioeconomic health.
 - 1c. There is a positive relationship between perceived psychological health needs of older adults and stated performance of health activities to maintain psychological health.
2. There is a positive relationship between perceived health needs of older adults and the extent of assistance expected from health care providers.
 - 2a. There is a positive relationship between perceived physical health needs of older adults and the extent of assistance expected from health care providers.

- 2b. There is a relationship between perceived socioeconomic health needs and the extent of assistance expected from health care providers.
- 2c. There is a relationship between perceived psychological health needs and the extent of assistance expected from health care providers.
- 3. There is a negative relationship between the stated performance of health activities of older adults and the extent of assistance expected from health care providers.
 - 3a. There is a negative relationship between the stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers.
 - 3b. There is a negative relationship between the stated performance of health activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers.
 - 3c. There is a negative relationship between the stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected

from health care providers.

Conceptual Definitions

1. Older adult is defined in many different ways in the literature. For purposes of this study an older adult is defined by age and includes all persons who have attained the age of 65 years or older, are ambulatory, reside in independent living quarters, are oriented to time, place and person, can communicate either verbally or by writing in the English language, and consider themselves healthy in response to a question relative to health.

2. Health needs (Total) are defined as those specific requirements of the individual older adult which might be experienced as aging progresses and must be met if he is to function at his maximum physical, socioeconomic, and psychological potential.

- a. Physical health needs are defined as past or expected future changes in locomotion; nutrition; aeration; elimination; circulation; sensation; and rest.
- b. Socioeconomic health needs are defined as past or future changes in ability to afford food, housing, clothing, utilities, health care, and social activities.
- c. Psychological health needs are defined as past or expected future changes in roles,

intimacy, family relationships, self-esteem, memory, desire to reminisce, ability to learn and problem-solving ability.

3. Health activities (Total) are defined as any self-care activity practiced by the older adult and directed toward maintaining physical, socioeconomic, and psychological health.

- a. Activities to maintain physical health are defined as exercise; nutrition; use of tobacco, alcohol, and caffeine; dental care; preventive health screening; adequate rest; use of health care services for illness; and knowledge of medication action and regimens.
- b. Activities to maintain socioeconomic health are defined as utilization of Medicare, Medicaid, nutrition programs, and free health screening programs.
- c. Activities to maintain psychological health are defined as participation in hobbies, social activities, reminiscing, family relationships; and educational programs; attention to personal appearance; management of stress; and finding ways to be useful to others.

4. Health assistance is defined as performing, guiding, supporting, providing a developmental environment, and teaching of self-care activities necessary for an individual to reach and maintain maximum physical, socioeconomic and psychological health. For purposes of this study, expected health assistance is indicated by agreement that the individual older adult expects to receive assistance from a health care provider with a specific health need or health activity.

5. Health care provider is defined as that professional person who provides health assistance with health needs and health activities of older adults directed toward maximizing physical, socioeconomic, and psychological health. For purposes of this study health care providers will be divided into the categories physician, nurse and social worker. Additional categories (relative or friend, myself, other, and no one) are provided to clarify if the older adult expects assistance but from persons outside the formal health care system.

Delimitation of the Problem Area

The problem area is delimited to the following extent: the population researched are all English speaking, ambulatory, self-perceived "healthy" older adults. No attempt was made to obtain access to medical records to validate these perceptions. There was no attempt to assess

functional status other than self-report. There was no attempt to assess performance of health activities other than self-report. In this study the researcher did not identify barriers to receipt of health assistance or actual services received.

Limitations of the Study

The limitations of the study are:

1. Self-perceptions of health needs may not be accurate.
2. Reporting of health activities may not be an accurate account of performance of these activities.
3. Expectations of health assistance from health care providers are affected by economic status, accessibility, availability of providers, past experience, and knowledge of resources. There was no control in this study for these variables nor was there validation that these services had or had not been received.
4. The subjects who agreed to participate in this study may have been different from those who chose not to participate. Therefore, it is possible that the research findings are not representative of the total older adult population.

5. The subjects were all ambulatory, independent older adults. Therefore it is possible the research findings may not apply to older adults who are not ambulatory or who are in dependent living situations.
6. The subjects were all English speaking and literate. Therefore, the research findings may not apply to other ethnic groups or those who cannot read, write, or speak the English language.
7. The sample was drawn from a limited geographic area.
8. The sample was a voluntary rather than a random sample. All persons from each site who wished to participate and met the criteria were allowed to do so.
9. The instrument was administered in a group setting. Persons who participate in groups may have different characteristics than those who do not.

Assumptions

In this study the researcher is making the following assumptions:

1. It is assumed that all older adults experience some functional disability as they grow older.

2. It is assumed that most ambulatory, independent older adults wish to maintain or improve their present health status.
3. It is assumed that most older adults have had some contact with health care providers from which they have formulated present expectations of how providers can assist them to meet their personal health needs.
4. It is assumed that answers to the questions on the instrument reflect honestly and accurately the individual's perceptions of their perceived health needs and expectations of assistance at a point in time.
5. It is assumed that perceived health needs of older adults relating to functional capabilities can be identified.
6. It is assumed that health activities performed by older adults to meet these health needs can be identified.
7. It is assumed that the extent of assistance expected from health care providers to meet these health needs or perform these health activities can be identified.

Overview of the Chapters

The description of the study has been organized into six chapters. In Chapter I is provided an introduction,

statement of the problem, hypotheses, limitations, conceptual definitions, and the assumptions underlying this study.

In Chapter II the conceptual framework is presented drawing on related gerontological, health, and nursing concepts and theories.

In Chapter III the pertinent literature and research in the problem area are reviewed.

In Chapter IV methodology and procedures of the research are described.

In Chapter V data are presented and analysis of the results of the research are given and discussed.

In Chapter VI the research findings are summarized and conclusions and recommendations are presented.

CHAPTER II
CONCEPTUAL FRAMEWORK

Introduction

In this chapter, a research framework is presented based on Rosenstock's Preventive Health Belief Model integrating the concepts of aging, health, and self-care. The framework presentation includes a brief overview of selected aging theories, an explanation of the preventive Health Belief Model followed by a description of health and wellness as applied to older adults, a description of the concept of health beliefs in relation to perceived health needs and performance of health activities by older adults, a discussion of the concept of expected assistance; and, though nursing interventions are not a part of the present study, an explanation of the manner in which nurses could intervene as self-care agents to enhance performance of preventive health activities.

This conceptual framework provides the basis for examining the problem addressed by the researcher in this study: are there relationships among perceived health needs and health activities of older adults and their expectations of assistance from health care providers?

AGING

Neugarten (1981) maintains that age is a poor predictor of physical, intellectual, or social competence in the second half of life and, because of this, is becoming a less relevant characteristic than previously thought. This author proposes distinguishing between the young-old and the old-old based on social and health characteristics and not chronological age and describes the old-old as those older persons who suffer major physical or mental impairments. This group of older adults only comprise a minority of the present and future population of older persons. The young-old are the large majority of men and women over age 65 and are vigorous, competent, relatively healthy, and relatively comfortable financially. In general, they may not spend as much time working or doing household tasks but remain integrated members of their families and communities. Most persons 65 years old and older live in their own households and play active roles in their churches, clubs, and organization. It is this population of older adults the researcher will address in the present study.

Adults choose and follow courses of action which they believe will be beneficial to their own functioning (Orem, 1971, p. 13). Age and health generally determine the scope of activities a person can perform. The older adult has a lifetime of experiences from which have evolved

perceptions about health and established response patterns to both external and internal stimuli. Health needs and the performance of health activities of older adults may differ from those of younger persons because of changes in physical functioning, socioeconomic status, and psychological stressors.

Age may be described in three ways: biological age, psychological age, and chronological age. Chronological age is the method most often used to describe the age of an individual. Kalish (1977) states that the practice of utilizing the age of 65 as a boundary for "old age" had its origins when Chancellor Bismark was trying to develop a pension plan for railroad workers. Realizing that few workers survived to the age of 65 at that time he decided age 65 would be a good age at which to initiate the pension benefits. Policies of many employers at the present time fix that age of mandatory retirement at age 65. Because retirement presents the individual adult with many new life-changes, in this study the older adult will be defined as any individual who has attained the age of 65 or older.

Many theories have been postulated to explain the aging process but it is still difficult to distinguish between age-related changes and trauma, stress, or sub-clinical disease processes. Furthermore, aging theories proposed by one discipline view the process of aging from a different perspective than does another discipline.

Ebersole and Hess (1981) summarize the most popular theories at this time. Biologic and physiologic aging theories are concerned with cellular changes that result in metabolic error as the result of slowed repair processes, chromosomal aberrations, or accumulation of waste products. Though these theories leave many questions unanswered, especially in the psychological and sociological realms, some interrelationships between the biologic theories do seem to exist.

The two most prevalent sociologic theories are disengagement and activity theory. Disengagement theory postulates a mutual beneficial withdrawal between the older person and others in their social system (Murray & Zentner, 1979; Archbold, 1981; Ebersole & Hess, 1981; Vander Zyl, 1979). Disengagement theory does not consider individual variation in the need for withdrawal or past life style of older persons in their social roles. It also avoids such socioeconomic issues as decreased finances or altered mobility. Activity theory is in direct opposition to disengagement theory and postulates that successful aging is characterized by active social interaction. Again, this theory does not consider individual variations in life style and past patterns of interaction as well as physical or socioeconomic capability.

Various authors (Vander Zyl, 1979; Murray & Zentner, 1979; Archbold, 1981; Butler, 1981; Covey, 1981;

Murray, Huelskoetters, & O'Driscoll, 1980) discuss the psychological theory of continuity which has been formulated from developmental concepts to address some of the gaps in the other aging theories. Proponents of continuity theory conceptualize that in the process of becoming an adult, an individual develops habits, preferences and perceptions which become a part of his personality (Vander Zyl, 1979). Adaptation to aging can proceed in several directions depending on the individual's past life (Murray & Zentner, 1979). Continuity of personality and one's ability to adjust to stress and the social environment is maintained over the life span. Barring serious illness or the biological decline of the old-old, it has been postulated that patterns of aging are predictable based on the individual's behavioral patterns in the earlier years. From this viewpoint old age is an integral part of the life cycle and not a terminal period apart from foregoing years. Vander Zyl (1979) cites several studies which support the continuity theory.

Butler (1975) states the way one experiences old age is contingent upon physical health, personality, earlier life experiences, the actual circumstances of late life events (in what order, how and when they occur) and the social supports one receives (adequate finances, shelter, medical care, social rules, religious support, and recreation). More longitudinal studies are necessary to test these concepts. Butler (1981) states such studies will

yield much in the way of understanding the process of aging.

None of the other theories of aging explain why each aging individual is so personally unique in the way he interacts within his environment. Continuity theory may explain the vast amount of individual variability among the older adult population and the need to consult with individual older adults prior to planning for them about their preferences, beliefs and life-style. The goal of continuity theory is to facilitate growth toward a higher level of development. From a health care standpoint, continuity theory would allow a provider to build upon older adults' past and present strengths to meet health needs, thereby promoting wellness through adaptation to the continuing process of growing old.

The purpose of the present study was not to test the Health Belief Model among an older adult population, however, the HBM is an appropriate framework for the present study because researchers testing the model have identified that relationships do exist among the variables in the model (perceived susceptibility, motivational and modifying factors, and benefits and barriers of preventive health behaviors). Rosenstock (Becker, 1974), in formulating the preventive HBM, has provided a model by which to assess the potential of older persons to achieve and maintain a state of wellness throughout the process of growing older by identifying health beliefs about possible problems which

might influence practice of preventive health activities, and areas of need or activity in which assistance is expected from health care providers. A brief overview of the constructs of the preventive Health Belief Model has been presented in the beginning of the next section of this chapter under the topic "Health."

HEALTH

Preventive Health Belief Model

The health belief model (HBM) is a conceptual psychosocial formulation developed to explain and predict health-related behavior at the level of individual decision-making (Mikhail, 1981; Haefner & Kirscht, 1970). The model variables were drawn from the social psychological theories of Kurt Lewin who hypothesized that behavior depends on two variables: the value of an outcome to an individual and the individual's perception of the probability that a particular action will produce the desirable outcome (Mikhail, 1981). Proponents of the model assume that "good health" is a goal more or less common to all and that differences in preventive health behaviors are the result of differing perceptions, motivations to take action, and decision-making regarding selection of alternatives (Langlie, 1977).

Rosenstock (Becker, 1974) proposes that five variables affect health behavior (perceived susceptibility, perceived seriousness, perceived benefits of preventive

activity, modifying factors, and motivational factors) and that preventive health behavior has a phenomenological orientation whereby a person's perceptions determine his behavior. Health behavior is motivated by health beliefs which, in turn, are defined as a person's perception of his personal susceptibility to a disease, the seriousness of the effects of that disease upon his life, and the benefits of a particular activity toward reducing his susceptibility or decreasing the seriousness (Figure 1). Cognition, dependent to some extent on knowledge, is a component of health beliefs.

The health activity may be perceived as beneficial but the presence of barriers may result in avoidance of the activity. If the positive aspects of the activity are strong and the negative aspects weak, the activity will probably occur. If the negative aspects are strong and positive aspects weak the activity will probably not occur (Figure 1). When both positive and negative aspects are strong, alternative activities will be sought which will be equally beneficial.

When no alternative activities are recognized or available, escape from the situation may be attempted by engaging in activity which does not really reduce the threat but which does temporarily alleviate the pressure of the conflict between the perceived benefits and the barriers. A second reaction when alternative activity is not found

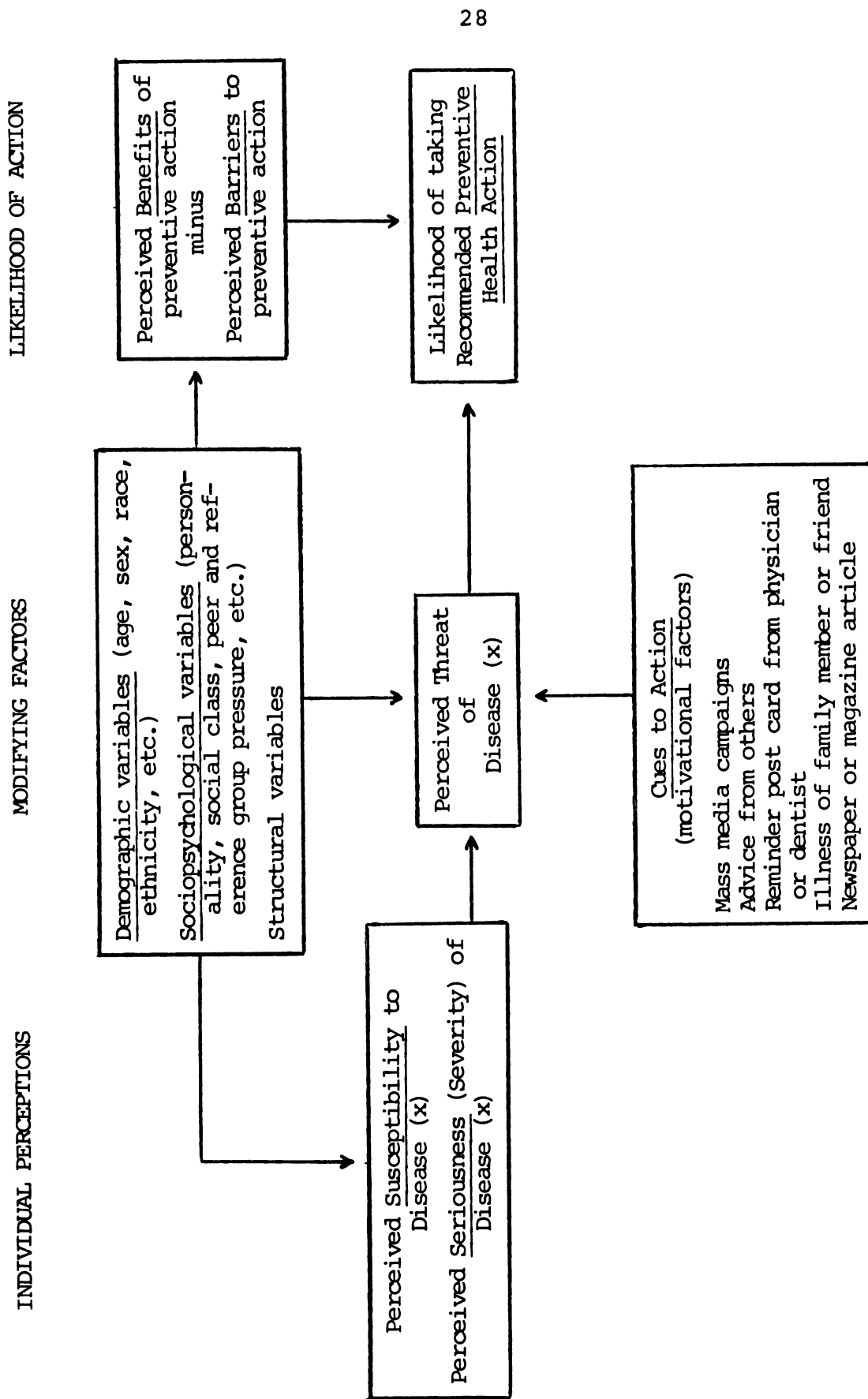


Figure 1. The Preventive Health Belief Model (Becker, 1974)

might be a marked increase in fear or anxiety which, if strong enough, could reduce the capacity for objective thinking and rational activity.

Several modifying factors have been proposed that might influence individual perceptions of susceptibility, seriousness, and benefits of taking action (Mikhail, 1981; Becker, 1974; Haefner & Kirscht, 1970; Langlie, 1977; Williams & Wechsler, 1973; Mechanic & Cleary, 1980). These modifying factors may be categorized as demographic variables (age, sex, race, ethnicity, etc.), sociopsychological variables (personality, social status, peer and reference group pressure, income) and structural variables such as prior knowledge about problems, prior experience with the problem and perceived health (Figure 1).

The last variable or construct of the HBM hypothesized by Rosenstock is a factor which serves as an event or cue which may be necessary to motivate the performance of the preventive health activity. This (or these) cues may be internal (perception of bodily states) or external (environmental). The intensity of the cue needed to trigger behavior is inversely related to the level of perceived susceptibility and seriousness present. The higher the degree of acceptance of susceptibility and seriousness is in an individual the lower the intensity of the stimulus needed to initiate action (Becker, 1974). The stimuli or "cues to action" are labeled motivational factors (Figure 1) by Becker (1974). Mikhail,

(1981) states that motivational factors and how they influence preventive health behavior are still in need of intensive study but cites some studies which have demonstrated that the use of mass media, exposure to health information from health care providers, postcard reminders, and the presence of symptoms have stimulated action and acted as a cue to seeking care or assistance.

In the present study the preventive Health Belief Model was utilized as a framework for examination of the relationships among perceived health needs of older adults and their stated performance of health activities. In the remainder of this section of Chapter II the concept of "health" as it pertains to older adults is presented including the sub-concepts of health needs and health activities. Finally, the concept of "Expected Assistance" will be presented as an addition to the preventive HBM to adapt the framework to the special needs of the older adult population.

HEALTH AND WELLNESS

The meaning of the word "health" often differs depending on the background or orientation of the person defining the word. In medicine, health occurs in the absence of illness or disease. The World Health Organization defines "health" as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. Using this definition it appears an individual would

rarely be in perfect health as these three aspects of one's person are not often in a state of complete well-being at the same time. Selzer, Corbett, and Atchley (1978) state that the meaning of the word "health" was originally defined as "to function well physically and mentally and to express the full range of one's potentialities" (Ebersole & Hess, 1981, p. 59). Dunn uses the term "high-level wellness" to describe well-being and defines this as an integrated method of functioning oriented toward maximizing the potential of which he is capable (Becker, 1974). Mallick (1979) states that health is relative to the ability to function despite the presence of disease. Ebersole and Hess (1981) define "wellness" as a balance between one's environment and one's emotional, social, cultural, and physical processes. These authors state that even in chronic illness and dying there is an optimum level of wellness and well-being attainable for each individual. Schraff (1981) quotes President John Q. Adams on his own state of health and well-being at 80 years of age and concludes "being well has nothing to do with the presence or absence of pathology."

Bruhn, Cordova, Williams, and Fuentes (1977) propose that good health is only a part of "wellness" and that wellness is a continually changing process in which individuals may participate (Figure 2). These authors argue that health care today puts the emphasis on what not to do in order to prevent illness instead of focusing on what to do to remain

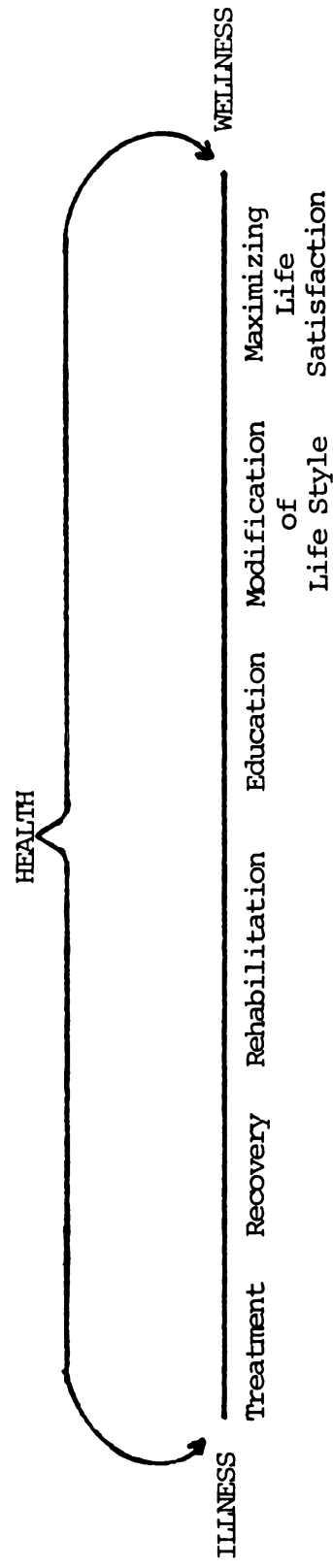


Figure 2. The Health Continuum

From Bruhn, Cordova, Williams, & Fuentes. The Wellness Process. Journal of Community Health, Vol 2-3, Spring 1977, p. 210.

healthy or become more healthy and propose that good health is on a continuum between illness and wellness. There are several differences between good health and wellness (Bruhn, et al., 1977). Wellness is a continuing process whereas good health is a state of being at any one point in time. Wellness is active requiring effort on the individual's part while good health may exist despite one's actions or inactions. Wellness is related to the processes of learning and development while good health is a description of an individual state.

The wellness process is made up of several components (personal growth, internal control, and knowledgeability about health related activities and habits), all aspects of an individual's personality and an indication of one's potential for growth and change. Bruhn, et al. (1977) refer to personality as the patterned ways one experiences and acts in life situations which are learned during the developmental process. The behaviors which are most satisfying are retained and reinforced and thus determine the individual's potential for experiencing wellness. At each level of development certain behaviors increase and this establishes a pattern for wellness appropriate to that stage. At each stage of development the level of wellness is dependent on completion of certain wellness tasks which are, in turn, influenced by interactions between many factors (environmental, physical, behavioral, and social).

Failure to complete all of the wellness tasks at any developmental stage would indicate that an individual is not functioning at his/her maximum potential for wellness (Bruhn, et al., 1977).

Each individual has a different potential for wellness because of factors such as genetic structure and life circumstances. Individuals who develop an acute or chronic illness still have a wellness potential but that potential might be different from a person who is not experiencing a disease condition.

For an individual to move from being in good health to a process of wellness one must take an active part through education, modification of life-style and maximizing life satisfaction (Figure 2). Utilization of the wellness model would allow the conceptualization that a person may experience wellness while exhibiting clinical symptoms of illness in some aspect of his life. Bruhn et al. (1977) lists five examples of minimal wellness tasks for the older adult. These are:

- becoming aware of risks to health and adjusting life style and habits to cope with risks
- adjusting to loss of job, income, and family and friends through death
- redefining self-concept
- adjusting to changes in personal time and new physical environments
- adjusting of previous health habits to current physical and mental capabilities

Based on the above definitions and concepts, health may be considered a point from which older adults may progress in the process of achieving wellness.

Rosenstock (1974) did not define the term "health" in his model and states it is difficult to give the term "positive health" any operational meaning. Health in this study will be defined as a state of physical, socioeconomic and psychological well-being in which an individual functions at the maximum potential of which he is capable. All older adults who participated in the present study perceived themselves to be in good health. To be in a state of health, basic health needs must be satisfied. The sub-concept health needs has been presented in the next section of this chapter.

Health Needs

The dictionary (Webster, 1979) defines the noun "need" as: necessary duty (obligation); a lack of something requisite, desirable, or useful; a physiological or psychological requirement for the well-being of an organism; and a condition requiring supply or relief. Maslow (1970) proposed a hierarchy of needs and theorizes that needs at one level must be satisfied before one becomes aware of needs at the next level. As awareness of needs increases, motivation toward meeting these needs increases. Levels of need fluctuate but ranked in order of priority are;

physiologic needs, safety and security, love and belonging, self-esteem, and self-actualization (Ebersole & Hess, 1981). Perceptions are determined through interrelationships between psychological, physiological and socio-cultural-economic factors. The continuity theory of aging allows for consideration of individual perceptions in order to understand behavior as aging progresses.

Rosenstock (Becker, 1974) states it is not known whether the improvement of health in a person who perceives himself as already healthy has a motivational force in influencing action or if the action is motivated by the desire to avoid a deleterious situation. If avoidance of a negative situation is the motivator it may be a result of the aforementioned (Bruhn et al., 1977) focus of health care on prevention of illness rather than promotion of wellness. In the preventive Health Belief Model perceived susceptibility refers to the subjective risks of contracting a condition. If an individual believes there is a possibility a particular event will occur, a "need" might be perceived to prevent or minimize that possibility.

In this study health needs will be defined as those specific perceived requirements of an individual which must be met if he is to function at his maximum physical, socioeconomic and psychological potential and are represented as perceived expectations of health needs in the conceptual model (Figure 3).

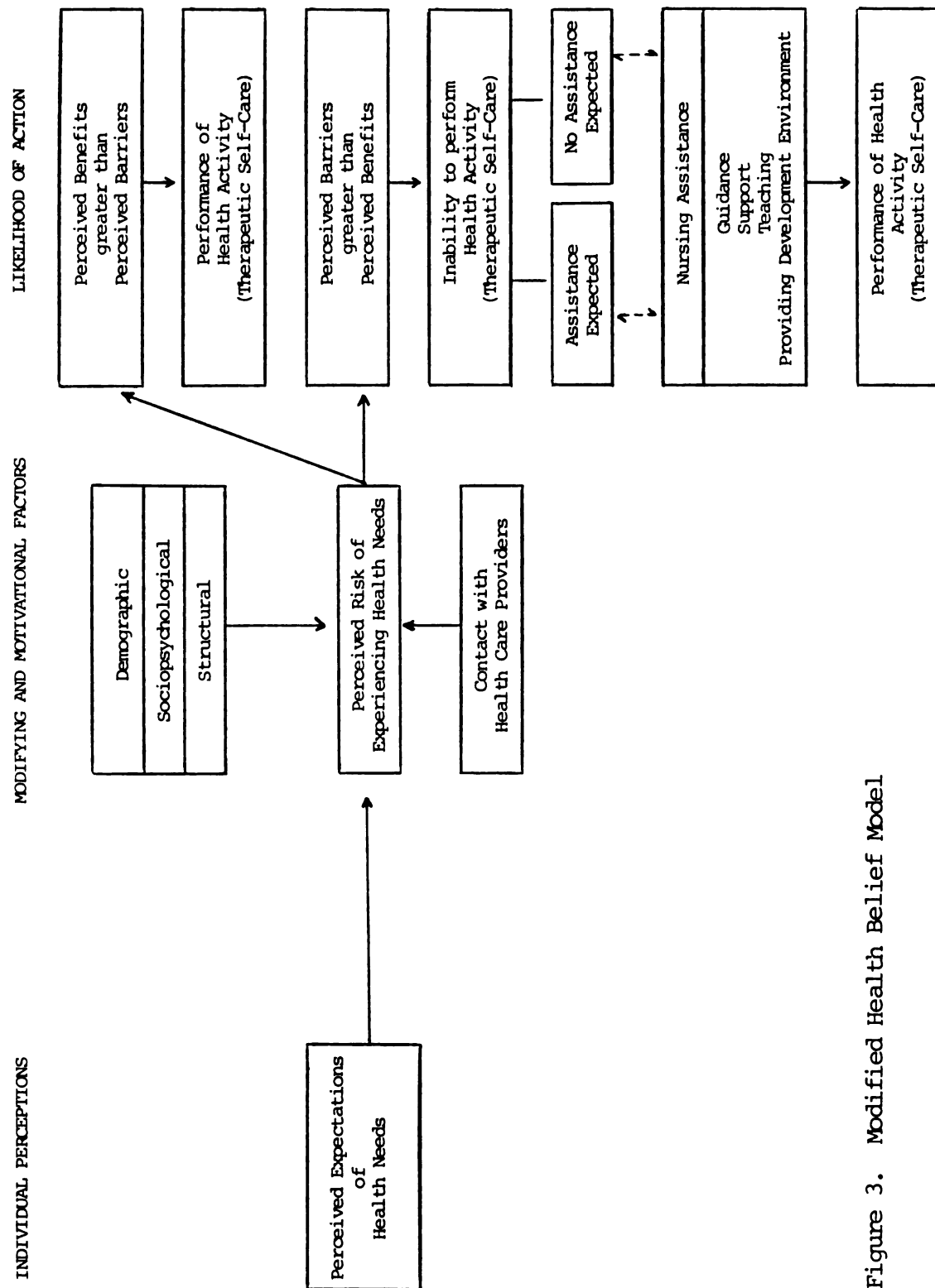


Figure 3. Modified Health Belief Model

Health Activity

To meet a need requires activity. The need becomes the motivational force directing the activity. Kasl and Cobb (1966) use the term "health behavior" to depict any activity undertaken by an individual who believes himself to be healthy for the purpose of preventing a disease or detecting disease in an asymptomatic stage. Behavior is learned throughout life and is related to the beliefs, habits, and practices of the group(s) to which an individual belongs.

In the present study, the preventive Health Belief Model was utilized to determine the individual older adults stated performance of specific health activities to maintain their health in the physical, socioeconomic and psychological areas of function (Figure 3).

Modifying Factors

Becker (1974) proposed that a variety of modifying factors might influence individual perceptions of the threat of a problem or disease. For the purpose of this study demographic, sociopsychological and structural variables relevant to the older adult population were selected (Figure 3).

The demographic variables of age and sex were determined for each subject in order to identify whether there were age or sex-related differences in individual

perceptions of health needs or performance of health activities. The sociopsychological variables of marital status, occupational status, years of retirement, type of dwelling, household members, and income were determined for each participant as each of these factors might affect an older adult's perceptions of health needs and/or performance of health activities. Perceived good health and the ability to read and/or understand the English language were criteria for participation in the study and therefore included as structural variables. In summary, the modifying factors investigated in this study were age, sex, marital status, occupational status, years of retirement, type of dwelling, household members, income, native language and perceived health.

Motivational Factors

Health care providers may provide the motivation for the older adult to perform preventive health activities, therefore utilization of health care providers was determined for each subject to identify if increased contact with a health care provider was related to differences in individual perceptions of health needs or stated performance of health activities (Figure 3).

Expected Assistance

Expected assistance is not a component of the preventive HBM, yet assistance-seeking behavior may be a

preventive health activity. As an individual grows older certain changes may occur in the physical, socioeconomic, and psychological areas of function. These changes are discussed in Chapter III. To adapt to these naturally occurring changes, an older adult may require assistance. In addition, pathological conditions are common among the older adult population. Though most older adults cope with chronic disease conditions when present, the impact of those diseases on the individual's life could be minimized if appropriate assistance is forthcoming at the proper time.

Depending on individual perceptions about the perceived threat of a disease or aging change as well as the balance between the benefits and barriers of assistance-seeking health activity, the older adult may or may not expect to receive assistance with a health need or health activity. Several barriers to preventive health care exist for the older adult population (high cost of health care, lack of third-party payment for preventive health services, unavailability of transportation, the negative attitude of health care providers toward aging, the focus of the health care system on "cure" rather than prevention) as discussed in Chapter I. While all of these barriers may be affected by individual health beliefs, motivational and modifying factors, the "healthy" older adult may choose not to seek assistance from a health care provider. Instead, depending on individual perceptions, the older person expect to handle

the problem alone or seek assistance from someone outside the formal health care system. Some individuals may not expect to receive assistance from anyone or even help themselves.

Because the receipt of assistance might theoretically prevent loss of independence the concept of "Expected Assistance" has been added to the preventive HBM (Figure 3) to adapt Rosenstock's framework for use with the independent older adult.

In summary, though chronic disease is prevalent among the older adult population, wellness is still attainable. The potential for wellness may be assessed using the preventive Health Belief Model (Becker, 1974) to identify the older adult's perceived health needs, performance of health activities, the modifying and motivational factors which influence the individual's perceptions and decisions to take action (Figure 3), and the extent of assistance expected from health care providers.

Proponents of the continuity theory of aging, the preventive Health Belief Model, and the concepts of the wellness process all recognize that health behaviors can be modified or changed. They also all agree that to change a life-long pattern of behavior may require assistance from someone specifically trained and educated to do so. Though this study was not designed to test specific interventions, the same framework can be utilized to assess the need for

intervention among the older adult population. That intervention may be to provide assistance as expected and/or requested by individual older adults themselves or by altering their perceptions of health needs and/or benefits of health activities, providing the motivation for the health activity, or by reducing barriers which might prevent an activity from being performed.

In the next section of this chapter the concepts of self-care and self-care assistance will be explored with emphasis on the profession of nursing as the discipline whose members are uniquely educated to provide the needed interventions among the older adult population.

SELF-CARE--NURSING HEALTH ASSISTANCE

Variables in the Health Belief Model may be modified through specific interventions. Since use of the continuity theory of aging allows for individual variation among older adults, Rosenstock's model can be utilized as a framework for describing individual perceptions of health needs (susceptibility), identifying perceived beneficial health activities (benefits), including areas in which older adults expect to receive assistance from health care providers and ultimately, assessing the need for intervention (see Figure 3).

Rosenstock's "preventive health action" is a similar concept to that of "self-care." Self-care is a term used

to describe what an individual does to stay healthy. Butler (1979-80) defines self-care as an individual's deliberate action on behalf of his own, his family's or his neighbor's well-being. The end-point of self-care is the individual. It encompasses formal consumer health education programs and patient education efforts designed to teach self-care knowledge and skills. Butler differentiates between self-care and self-help in that self-help refers to clusters of individuals with common concerns who share experiences and offer each other mutual support and aid and states further that self-care programs and self-help groups are particularly appropriate for the needs of the elderly, although few exist specifically for this population. Self-care measures help reduce costly professional health services. Self-help groups can provide social outlets for those whose social lives are restricted. Butler's concept of self-care consists of a series of three concentric circles. The inner circle includes regular activities of daily living. Levin (Butler, 1979-80) reports that self-care practices account for 85% of all health care in the world.

The second ring of self-care encompasses consciously acquired health knowledge and awareness and appropriately altered follow-up behaviors (Butler, 1974) which correspond to the activities of education and modification of lifestyle on the Health Continuum (Figure 2). Butler includes

in this category most preventive health care and lists some of the same "cues to action" or motivational factors as in Rosenstock's Health Belief Model (Figure 1).

In the outermost ring of self-care are persons who assume tasks formerly in the realm of the professional health care provider. This third ring involves a formal educational component in which individuals learn health care skills such as taking blood pressure or monitoring a pulse. Performance of all three types of self-care is schematically represented by "performance of health activity (therapeutic self-care)" in the last column of Figure 3. In addition, the older adult may (or may not) expect assistance with self-care as represented by "Assistance Expected" and "No Assistance Expected" in the last column of Figure 3. Nurses can assist older adults with all three types of self-care activities (Figures 3 and 4).

Traditionally, nursing as a profession has been concerned with health and patient education. The revised Michigan State Public Health Code defines nursing as:

The systematic application of substantial specialized knowledge and skill, derived from the biological, physical, and behavioral sciences, to the care, treatment, counsel, and health teaching of individuals who are experiencing changes in the normal health processes or who require assistance in the maintenance of health and the prevention or management of illness, injury, or disability. (1978)

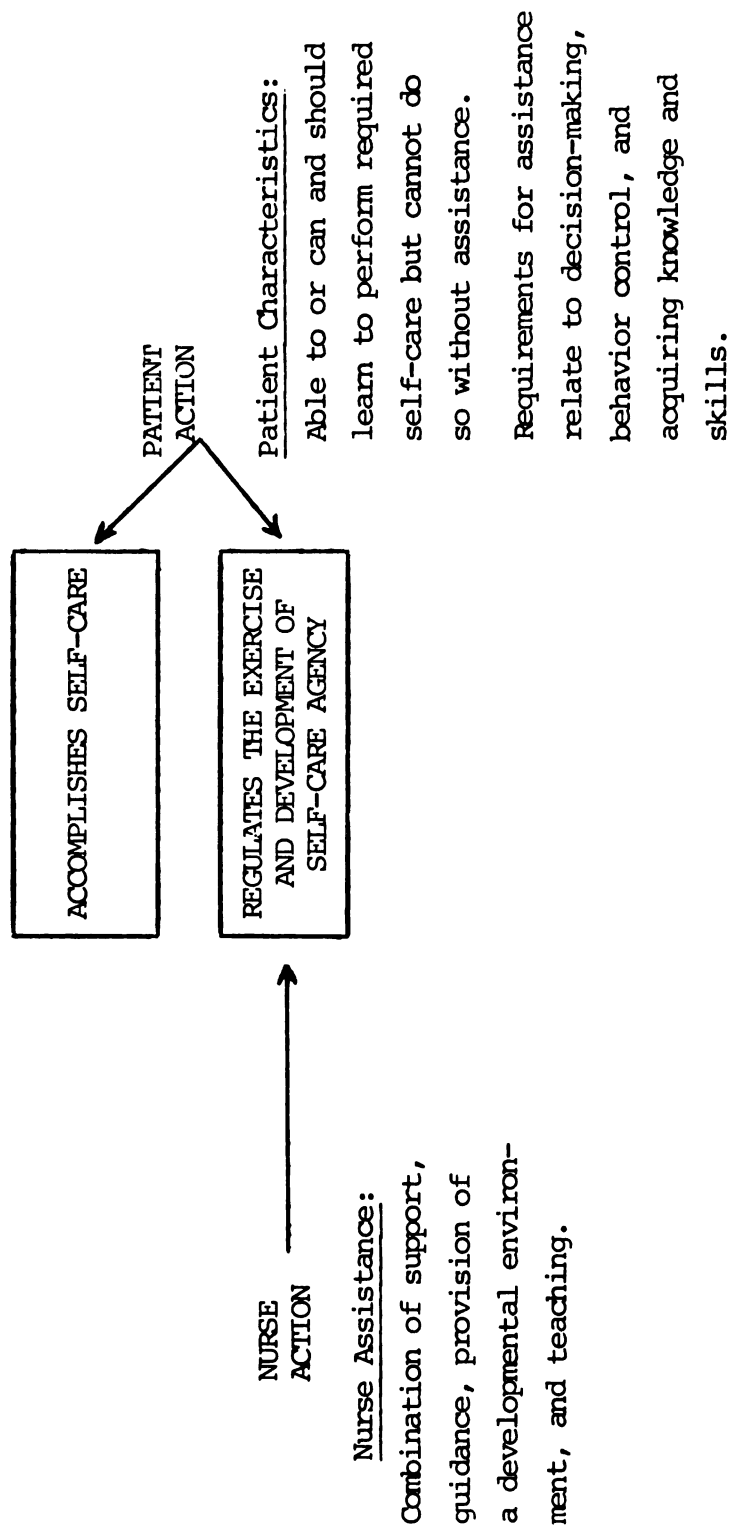


Figure 4. Orem's Model of Supportive-Educative Nursing System (1980)

Orem (1980) states that "self-care is the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well being" (Orem, 1980, p. 35). The provider of self-care is the self-care agent. Nurses may act as a self-care agent for another individual. Self-care as conceptualized by Orem (1980) is purposeful and consists of three types of actions which are termed self-care requisites. Universal self-care requisites are associated with life processes and with the maintenance of the structural and functional integrity of the human being and are common to all persons throughout the life cycle adjusted to age, developmental state, and environmental factors. Developmental self-care requisites are associated with developmental processes and life cycle events (i.e., pregnancy). Health deviation self-care requisites are concerned with genetic, constitutional, structural and functional deficits and with their effects, medical diagnosis and treatment.

For purposes of the present study, self-care is defined as deliberate health behavior requiring valid perceptions of health needs and benefits of performing the health activity (Figure 3). Nursing assistance will be defined as performing, guiding, supporting, providing a developmental environment for, and teaching of self-care activities necessary for an individual to reach and maintain physical, socioeconomic, and psychological function

(Figure 4--Nursing Assistance).

Within Orem's framework, self-care requires learning, use of knowledge, and enduring motivation and skill. These same requisites are necessary (according to Bruhn et al. 1977) to move from health toward wellness. The self-care agent performs actions which are either internally or externally oriented. Internally oriented actions include those to control internal factors using available resources and those actions to control one's thoughts, feelings, and/or orientation, thereby regulating internal factors or external orientations. The four types of externally oriented self-care actions include knowledge-seeking actions, assistance and resource seeking actions, expressive interpersonal actions and actions to control external factors. There are five ways in which a self-care agent may assist someone. These are by acting for or doing for, guiding, or physically or psychologically supporting another, providing a developmental environment, and/or teaching another (Figure 4). Nurses may act as self-care agents only after assessing the abilities of an individual to engage in self-care demand. Then nurses may make judgments about actual or potential self-care deficits and their cause, select valid and reliable methods of helping, and prescribe and design appropriate nursing systems. Individuals who may not think of themselves as self-care agents may need assistance to do so in order to understand the values their habits are based on

and to appraise the adequacy of their self-care practices.

Orem's concepts are based on the principle that either nurses or patients or both can act as self-care agents to meet self-care requisites. On this basis she has designed three various nursing systems. The wholly compensatory nursing system requires the nurse to act for and do for the patient. The partly compensatory system is used in situations where both nurse and patient perform care or health activities. The supportive-educative system is for situations where the patient is able to perform required therapeutic self-care but cannot do so without assistance (Figure 4). Assisting techniques used in this system are support, guidance, provision of a developmental environment, and teaching. This system is used when a person's "requirements for assistance relate to decision making, behavior control, and acquiring knowledge and skills" (Orem, 1981, p. 101).

In summary, the continuity theory of aging allows consideration of older adults' individual differences to assist them to achieve wellness. Using the framework provided by the preventive Health Belief Model, perceptions of health needs, stated performance of specific health activities, and expectations of assistance may be identified. Using the supportive-educative nursing system, professional nurses as self-care agents could intervene by manipulating appropriate variables within the Health Belief Model to

assist the older adult to regulate the exercise and development of his own self-care agency. This would include assisting the young-old person to work from health toward wellness by achieving the minimal wellness tasks as well as meeting all self-care requisites (see Figure 3).

CHAPTER III

LITERATURE REVIEW

The literature review discussed in this chapter was focused on the three major constructs of the study: perceived health needs of older adults; performance of health activities (self-care) by older adults; and assistance expected by older adults from health care providers.

As with all of the other stages of human growth and development (infancy, early childhood, adolescence, middle-age, etc.) the period of old age is accompanied by changes in biologic, socioeconomic and psychological function. Since the major concepts of the present study were health and wellness of older persons an additional section of the literature review is presented at the beginning of the chapter in which the investigator explored research identifying non-pathological changes which might be expected universally among the older adult population as aging progresses. The instrument utilized in this study was primarily developed from this review of the literature.

Common Changes with Aging

Biological Changes

Research in the area of physiological and biological changes as opposed to pathological changes that occur with

the aging process is relatively recent. Experts in the area agree that only by means of longitudinal studies of large samples of the population can a definitive body of scientific knowledge be established. To date there have been few such studies. What research has been done seems to be very specific to organ systems and will be reviewed here organized into the functional changes: locomotion, nutrition, aeration, elimination, circulation, sensation, and rest and relaxation.

Locomotion. The bulk of the skeleton atrophies but hypertrophy of bone at sites of attachments of tendons, ligaments and muscles has been demonstrated radiologically in asymptomatic older adults. Most of these hypertrophic changes are not pathological (Rossman, 1971). Finch and Hayflick (1977) report, however, that not enough clinical experimentation has been done to identify specifically which conditions of the skeletal system represent normal aging and which are widely occurring diseases. Kale and Jones (1981) state that osteoarthritis affects 90% of the elderly though all but 70% are asymptomatic. Grob (Reichel, 1978) agrees with these percentages but differentiates between sexes; he reports 15% of men and 25% of women are symptomatic after age 60. All sources list the common symptoms of joint pain on motion and weight-bearing which is relieved by rest.

Nutrition. There is erosion of chewing surfaces, recession of gum tissue, atrophy of alveolar bone (Ebersole &

Hess, 1980) and loss of muscle strength (Carnevali & Patrick, 1979) which make chewing more difficult. Gift (1979) cited studies conducted in 1975 for the American Dental Association in which researchers found that 44% of persons over 60 years old had full dentures, 16% had all their natural teeth and 38% had partial dentures or some missing teeth. Because, in part, of the atrophy of alveolar bone, excellent dentures properly fitted may become loose and inefficient over time (Gift, 1979). Feldman, Kapur, Alman, and Chauncey (1980) studied age-related changes in masticatory performance in healthy adult males ages 25-75. All participants had at least ten teeth on each side of their mouth or a fixed (non-removable) replacement for their missing teeth and the conclusion was that masticatory function does not alter with aging in persons with complete or partially compromised dentition. There was an increase with aging in the number of strokes used to prepare the food for swallowing but the significance of this finding was not determined.

Both Finch and Hayflick (1977) and Rossman (1971) discuss the widespread belief that absorption of vitamins and minerals may be hampered in old age but conclude no concrete evidence exists demonstrating this fact. Ebersole and Hess (1980) state minimal nutritional requirements remain the same in later years but total caloric intake should decline to compensate for changes in metabolic rate and a decrease in physical activity. Gambert & Guansing (1980)

discuss the prevalence of protein-caloric malnutrition in elderly persons and consider socioeconomic factors of prime importance as a cause but concur that despite the decrease in caloric requirements, the dietary protein requirement is not altered by age.

Aeration. With increased age there is a change in the shape of the thorax due to calcification of costal cartilage, a decrease in the elasticity of lung tissue, and a decrease in vital capacity with a resulting increase in residual volume since total lung capacity remains constant. There is a decrease in maximal breathing capacity but seems to be adequate alveolar ventilation (Rossman, 1971; Finch & Hayflick, 1977; Reichel, 1978). All sources agree with Ebersole and Hess (1980) that it is hard to measure pulmonary function in older adults and that the major functional problem is decreased adaptation to stress, a decreased ability to cough, and decreased efficiency of ciliary activity in the bronchial tree (Rossman, 1971; Finch & Hayflick, 1977; Reichel, 1978; Bowles, Portnoi, & Kenney, 1981).

Elimination. After extensive review of research in the area both Rossman (1971) and Finch and Hayflick (1977) conclude that there are minimal functional changes in gastrointestinal organs. Though both sources admit constipation in the elderly is a common problem, no research was found that adequately demonstrated decreased mobility of the lower

intestine. Brocklehurst (1980) includes constipation in a discussion of diseases of the lower bowel. Bowles, et al. (1981) state constipation may result from poor hydration, decreased activity, depression, and/or poor eating habits.

Several studies have been conducted using aging men and women to determine bladder changes with age (Finch & Hayflick, 1977; Ebersole & Hess, 1980; Rossman, 1971; Reichel, 1978). It is unclear to this researcher if the subjects were asymptomatic at the time of the investigations but all sources conclude there are some bladder changes as a result of the aging process. These changes are nocturnal frequency, decrease in bladder capacity, increase in residual urine, increased precipitancy, and an increased incidence of urinary tract infections with age. Whitmore (1981) describes benign prostatic hyperplasia as a nearly universal consequence of the aging process in men but states only a small proportion of aging men will develop clinical symptoms.

Circulation. With age there is a decrease in the acceleration of heart rate in response to stress, a decrease in cardiac output and a prolonged contraction and relaxation time. Elasticity of vessels decreases and the vessels become stiff which results in increased peripheral resistance. Perfusion of organs generally decreases (Rossman, 1971; Bowles, et al., 1981; Rockstein & Sussman, 1979; Ebersole & Hess, 1980). Both Rossman and Finch and Hayflick cite

studies purporting to demonstrate differences in perfusion decreases to various organs and conclude this may be an adaptive response.

Sensation. Taste buds atrophy (Ebersole & Hess, 1980) and decrease in number as aging progresses (Rossman, 1971) and there is an impaired response threshold to stimuli (Ebersole & Hess, 1980; Rossman, 1971). Though wide variability exists, three-fourths of the olfactory fibers are gone by the eighth and ninth decades (Rossman, 1971).

Presbyopia, the decrease in the ability of the eyes to accommodate to distance, begins in the fourth decade (Ebersole & Hess, 1980) but only 15-18% of the elderly have poor vision, 20/100 or below (Rossman, 1971). There is a decrease in the visual field resulting in impaired peripheral vision and poor accommodation to dark due to moderate impairment of cone function resulting in a need for more illumination for reading (Bowels, et al., 1981). Older persons have altered perception of blue, green, and violet colors due to yellow pigment accumulation in the aqueous humour (Bowles, et al., 1981; Ebersole & Hess, 1980).

Though wide variability exists, presbycusis, resulting in a decrease in hearing acuity, speech intelligibility, level of auditory threshold, and pitch discrimination does occur as a result of the aging process (Ebersole & Hess, 1980; Rossman, 1971), especially in the high frequencies (Rossman, 1971). By the age of 70 loss of hearing above

12,000 cycles per second affects nearly everyone (Bowles, et al., 1981). Ventura (1978) reports impaired hearing significantly restricts 30-50% of persons over the age of 65 but Norris and Cunningham (1981) found that hearing loss due to presbycusis does not affect the social involvement of the affected older person.

There is decreased speed responsiveness and altered proprioception with aging (Ebersole & Hess, 1980). The posture of older persons becomes more stooped and the gait broader based (Bowles, et al., 1981; Carnevalli & Patrick, 1979) and this change, along with the decrease in visual field, makes it hard for the older person to prevent him-her-self from falling when loss of balance occurs. There is a decrease in muscle mass of the lower extremity which results in decreased vascular tone and an increased venous pooling in the lower extremities. Quick rising can result in an orthostatic drop in blood pressure and fainting (Chipman, 1981).

Rest, Relaxation and Sleep. The total amount of sleep time is not usually reduced as aging progresses but older persons spend more waking time in bed. Stage IV sleep decreases steadily throughout life and occurs earlier in a given sleep period in later adulthood with over 50% occurring before the first REM cycle. There is less Stage IV sleep and an earlier REM cycle among older persons. The significance of this finding is not known but it may

increase daytime tiredness resulting in the need for 30-60 minute rest periods during the day (Ebersole & Hess, 1980; Gambert & Duthie, 1981; Reynolds, Coble, Black, Holzer, Carroll, & Kupfer, 1980). Coleman, Miles, Guilleminault, Zarcone, van den Hoed and Dement (1981) studied insomniacs aged 60 and older and found a much higher proportion of male subjects presented at their clinic than did females and found a high prevalence of clinically significant sleep apnea and periodic movements in sleep among the elderly subjects. Coleman, et al. (1981) concluded decreases in Stage IV sleep were so pervasive in all the elderly subjects it was probably not due to pathologic changes. There was no data comparing this group of older adults to "normal" subjects available yet but reportedly will be published soon.

Research in the area of sleep and aging was found to be deficient by one group of researchers (Dement, Miles & Carskadon, 1982) who strongly recommended six sleep research areas for immediate investigation: breathing during sleep; 24 hour sleep studies; sleeping pill studies; biologic rhythms; chronopathology in the elderly; diagnosis and treatment of sleep disorders in elderly patients; and sleep in the nursing home environment.

In summary, physical health needs may arise in the older adult population as a result of these common biologic changes of aging: hypertrophy of bone at joints; decreased sensory perception in each of the five senses; increased

frequency and precipitancy of urination; and less restful sleep.

Socioeconomic Changes

Kalish (1975) lists the decrease in direct income with retirement as the prime reason for limited financial resources of older adults. In preparation for the 1971 White House Conference on Aging questionnaires were distributed to all older persons attending regional and state meetings. Results indicated that over 50% of the polled older persons received and spent less than \$200.00 a month; over one-third had trouble paying housing costs and over 50% stated they did not always have enough money to make ends meet. While Medicare has helped decrease the older adult's health care costs, inflation has counteracted those cost reductions. Kalish states decreased self-esteem results from living in poverty but concludes, that the majority of older persons have the ability to live with their difficulties and enjoy life as much or more than younger persons. Kalish hypothesizes further that older persons can be free at last to be themselves and do what is important to them. This hypothesis was corroborated by Helen Hayes as she became 80 years old (1980).

Ebersole and Hess (1980) examined the economic status of older persons and found that in 1977, 3,177,000 persons over age 65 (14.1%) lived below the poverty level. Of these persons, 1,176,000 lived in families. Other pertinent

statistics cited in this source are the rising costs since 1975: an increase in food costs of 60%; an increase in cost of utilities so rapid no figures were available; a rise of 35% in home furnishing prices; an increase of 55% in physicians' fees; and an increase in hospital costs of 75%. Chen (Kalish, 1977) poses the question "What is adequate income?" and postulates there is substantial variation. This author states sex, marital status, race, and years of retirement all affect income adequacy. With advancing years Chen lists several factors which cause expenditures to decrease: no more dependent children to support; a decrease in space needs; eligibility to receive Medicare to help defray health care costs; decreased car, transportation and clothing expenses after leaving the job market; added income tax deductions; eligibility for subsidized housing; and a decrease in property taxes. Kalish (1975) states however, that expenses may diminish somewhat but not as much as most older persons anticipate.

In summary, from the broad literature review of socioeconomic changes with the aging process, it appears that socioeconomic needs may vary widely and depend to a great extent on past financial status and expenditures.

Psychological Changes

Butler and Lewis (1977) reviewed studies on intellectual changes with aging and conclude there is no decline in intellectual ability with age providing the older adult

is in good physical and mental health, has an adequate educational level, and is provided intellectual stimulation. Butler and Lewis (1977) discuss the many role changes which may occur in later life. Among these are the social roles lost as a result of mandatory retirement. This may result in a loss of meaning in life for the former worker and may result in depression. Women lose the role of wife and mother with the onset of widowhood and egress of dependent children from the household. When the male spouse retires he may wish to assume some of the household tasks previously performed by the woman. This may result in marital conflict and onset of depression within the wife. On the more positive side, Butler and Lewis have found that older persons can develop new roles, one important one being that of grandparent.

Butler and Lewis (1977) propose that older adults need to leave a legacy and, in conjunction with this need, must share their knowledge and experience with younger persons.

Butler and Lewis (1977), Kalish (1977), and Ebersole and Hess (1980) all discuss the current trend in the mass media to blame adult children for "abandoning" their older parents. Butler and Lewis admit mobility of nuclear families may lead to geographic isolation of older adults but all sources cite recent research demonstrating though older adults may live in separate homes there remains a complex

pattern of family relationships which is very functional and supportive (Butler & Lewis, 1977; Kalish, 1975; Kalish, 1977; Ebersole & Hess, 1980). Various authors (deBeauvoir, 1972; Butler & Lewis, 1977) discuss the ability of older adults to become creative with the addition of more leisure time in their lives. All sources accept Butler's research demonstrating the universal need for reminiscence as part of the normal life review process. Life review is necessary for one to age successfully (Kalish, 1977; Burnside, 1981; Ebersole & Hess, 1980; Butler & Lewis, 1977).

All authors support the research done by Masters and Johnson in the area of sexuality in late adulthood and conclude there remains a universal need for sexual expression and intimacy throughout life (Butler & Lewis, 1977; Ebersole & Hess, 1980; Masters & Johnson, 1981).

Because developmental tasks are widely discussed in the literature as one way to assess psychological adaptation it is relevant to include a review in this chapter.

Ebersole and Hess (1980) have consolidated developmental tasks as perceived by several authors (Peck, 1968; Havighurst, 1972; Ebersole, 1976; Butler & Lewis, 1977) and labeled them Intrinsic (requiring intrapersonal activity) or Extrinsic (requiring interpersonal activity) tasks as follows:

Intrinsic

- Continue to develop curiosity
- Transcend ego
- Achieve inner peace and self-acceptance
- Separate identity from work role
- Cultivate feminine and masculine identity
- Accept one's share of responsibility for the past
- Accept death of spouse
- Identify a legacy and a plan of dispersal
- Learn to tolerate losses and depressive episodes
- Accept help when needed
- Monitor body function
- Adapt to physical limitations
- Transcend body

Extrinsic

- Share wisdom
- Teach others to live and die uniquely
- Develop latent abilities that may be dormant
- Develop flexible social roles
- Serve as a historian for younger persons
- Maintain significant relationships
- Relate to age peers
- Develop new, less intense relationships, particularly with younger persons
- Plan for death
- Budget income and energy to meet important needs
- Find a suitable living situation allowing maximum independence
- Seek adequate health maintenance services

Accomplishment of appropriate developmental tasks is associated with life-satisfaction (Kurtz & Wolk, 1975) which is necessary if an older person is to progress toward a state of wellness (Bruhn, et al., 1977).

In summary, psychologically, older persons may expect to retain intellectual ability, may experience role changes, a need to leave a personal legacy, continuing supportive family relationships, a need for sexual expression and intimacy, and a need to accomplish appropriate developmental tasks as they grow older.

In the next section of the literature review the perceived health needs of older adults will be presented.

Perceived Health Needs of Older Adults

Accuracy of Self-Reports of Health

Self-reports of health status by older adults are a reliable indicator of health. Deniston and Jette (1980) found that arthritic subjects' self-assessments of their joint conditions were valid when compared to the objective assessments of health care professionals. LaRue, Bank, Jarvik, and Hetland (1979) examined the relationships between self-reports of health and physicians' ratings in an aged sample and attempted to determine how both of these measures of health related to longevity. The health status measures were obtained from a medical history form between 1966 and 1968 which asked subjects to rate their own health as "excellent," "fair," or "poor." A physician conducted a physical exam at that time but did not rate the subject's health in those same three terms. Prior to the 1979 study another physician examined the medical records of 69 survivors from the original group (ages 77-90) and, without meeting the subjects, subsequently rated their health as one of those three adjectives. The researchers found a significant correlation between the subjects' original ratings and that of the subsequent physician but did find the subjects' ratings were more positive. LaRue, et al. (1979) concluded that among persons below the age of 85 both self-reports and physician ratings were predictive of survival time. This conclusion supports the early findings of Maddox

(1964). Shanas (1968) found an old person's self assessment of health correlates highly with self-reported incapacity.

Graney and Zimmerman (1980-81) examined the causes and consequences of health self-report variations among older people. Literature review indicated that older persons tend to overrate their health or adjust their health expectations downward relative to medical standards as aging progresses. The sample included 2,794 subjects 65 years old and older obtained from data collected by Harris for the National Council on Aging (1975). Analysis of the data revealed that social status, social participation-activity, and personal attitudes were significantly related to older persons' health self-reports and were as important to the subjects' health self-conception as were those factors (physiological-medical) generally used by physicians in assessing health status. Financial adequacy, education, and self-concept were sufficient to explain 28% of the variance in health self-reports. No effort was made to compare subjects' self-reports to objective medical evaluations.

Variables Affecting Perceived Health Needs

Plawecki and Plawecki (1981) studied perceptions of physical and mental age among a small sample (N=54) of older adults (ages 61-100) from three settings (well-adults, hospitalized patients, and nursing home residents) and found that among all three groups older adults perceived themselves to be both physically and mentally younger than their

chronological age. No attempt was made to relate the findings to health status. These findings were congruent with those reported by Linn and Hunter (1979) who compared perceptions of age with psychological function in a sample of 150 older adults over age 65 (mean age = 74 years). Data revealed that 64% of the sample felt younger than their chronological age and scored high on the psychological function (health) scale. The researchers concluded better psychological functioning is associated with younger age perceptions in older adults.

Larson (1978) reviewed the literature over the last thirty years on the relationship of well-being to the life situations of older adults and concluded level of education, occupational status, marital status, availability of transportation, housing, and nonamorous forms of social interaction are related to subjective well-being. Isolated studies were also found indicating physical disability and lack of a confidant to be associated with greater vulnerability to negative emotional effects of life situations in later life. Evidence was also found that persons in higher socioeconomic levels have greater resources which enable them to avoid negative life situations.

Phaneuf (1981) cites data from a study of noninstitutionalized persons 60 years and older (N=514) in which the researchers classified the respondents as "enjoyers," who had coped more or less successfully with the

difficulties of aging, and "casualties," who had been hard hit with the difficulties of aging. Enjoyers tended to report good to excellent health, had comparatively high assets with incomes exceeding \$8,000 a year, had spouses of equal physical capability, and were relatively well-educated. Survivors were less apt to report good health, could not rely on economic security or the companionship of a spouse with equal physical capacity, and had less than a high school education. Casualties reported fair to poor health, had a high degree of economic stress, lacked a marital companion of equal physical capacity, were predominantly women and had less than a high school education.

Fuller and Larson (1980) found that life events as measured by the Geriatric Schedule of Recent Experience (adapted from Holmes and Rahe's Social Readjustment Scale) affect functional health and that emotional support does not moderate that effect. There was no relationship between life events and low morale among subjects who scored low on the emotional support scale (N=24). The higher scores on the life events scales were associated with lower morale only under higher levels of emotional support. The results of this study, while not conclusive, indicate that both life events and emotional support may affect perceptions of physical and mental health by the older adult.

Costello and Meacham (1980-81) assessed sex differences in relation to perceptions of the impact of specific

events of aging among 15 males and 15 females (mean age = 77) and found that change in appearance, departure of children, and decrease in time spent with children were perceived as more difficult for other women than for the subjects themselves and increase in leisure time, decreased strength and retirement are more difficult for other men. In general the subjects perceived that life events caused more difficulty for their peers than they did for themselves.

Perceived Health Needs of Older Adults

Moore (1978) measured functional impairments in social, economic, mental, and physical health, and activities of daily living among 130 subjects aged 60 and older who were patients utilizing a Family Medicine clinic. Results indicated that 32% were socially impaired, 33% were economically impaired, 58% had some physical impairment, 48% had mental impairment, and 28% had difficulty performing routine activities of daily living.

Researchers at Duke University developed the Duke-UNC Health Profile (DUHP) for use in primary care to assess adult health status and evaluate the effect of health care interventions on patient outcomes (Parkerson, Gehlbach, Wagner, James, Clapp, & Muhlbaier, 1981). Out of a total sample of 395 subjects only 7 persons were over 65 years old. The researchers still concluded that, with their instrument, the younger the age the higher the health status score. Physical function had the highest (0.49) correlation,

followed by symptom status. Age was not found to be significantly correlated with social and emotional function.

In 1977 Leon, Kamp, Gillum and Gillum (1981) studied the current life adjustment and social and physical activity patterns of a group (N=96) of elderly men (70-85 years old) who had been initially studied in 1947 and every year since then as part of the Cardiovascular Disease Project. The recent findings indicated that these men on the whole were satisfied with their opportunities to pursue interests, had a talent or hobby that gave them a feeling of success, and felt others were interested in their ideas. Few men in the study (6%) indicated they currently had emotional difficulties. Most of the older men were physically active (walking, gardening, doing home repairs) and socially active (went shopping, dined out, visited friends and relatives, and attended religious services). Chronic physical illness was reported by 46% of the group. The 1977 MMPI group profile was within normal limits. The researchers concluded the surviving members of the CVP group were successful at adapting to the stressors of aging. These findings may have limited applicability to other groups of older adults since at the time of the initial assessment the socioeconomic status of the group was in the upper middle to upper class and similar findings might not be obtained in a sample with a lower socioeconomic profile.

A comparison was made between older adults seen in an ambulatory clinic in urban New York City and older adults interviewed at a senior center in the same neighborhood (Auerbach, Gordon, Ullmann, & Weisel, 1977). Persons seen at the senior center considered themselves to be in better health than did those at the clinic. On a disability index only 11% of the senior center subjects reported moderate or severe disability as compared to 43% of the clinic group. Income seemed to be related to health since 18% of those in the clinic group felt their income was not enough to meet expenses as compared to 10% from the senior center. The majority (74%) of the subjects from the senior center received their income from Social Security while among the clinic subjects 49.7% received Social Security but 32.5% received additional SSI.

Archer, Flesman, Carver, and Adelman (1979) surveyed 679 older adults in community settings to determine the needs, wants, and life-styles of healthy older adults in order to plan health promotion and education programs. Less than 2% of the respondents felt they were worse off than others and 21% reported they were much better off than others their age. "Health" was reported most frequently as the best thing about their lives. Other best aspects listed were family, leisure time, retirement, friends, and social and senior clubs and activities. The worst aspects listed were health problems and loneliness. The researchers

point out that since health leads the list of both the best and worst factors in the lives of these older adults, this population does perceive the importance of their health to their life satisfaction.

The day-to-day symptoms of older persons were identified retrospectively by means of interviews with 132 subjects (Brody & Kleban, 1981). The most frequent symptoms reported to have been experienced in the one month prior to the interview, in descending order of frequency, were periods of feeling blue, tiredness, forgetfulness, difficulty sleeping, nervousness, and tenseness. Though fourteen of the twenty symptoms on the instrument were physical complaints none appeared in the top five symptoms listed by the "healthy" participants.

In 1972 a group of nurses measured the needs of older adults (N=466) in an effort to determine the extent of health care problems experienced by an elderly population and the adequacy of nursing services in meeting those needs (Managan, Wood, Heinichen, Hoffman, Hess, & Gillings, 1974). They selected five problem areas to assess: health condition, as indicated by reported illness in the previous month; physical functioning in activities of daily living; accessibility of medical care; social isolation; and service needs, as indicated by the respondents ability to obtain meals or transportation. The greatest percentage of problems were in the area of physical functioning. There was

little variation among social class but an increase in problems as educational level decreased. Females identified more problems than did males. Problems in physical function showed a consistent increase by age in females whereas, for males, the increase was not apparent until age 85. Less than half of this group indicated a health condition. Frank (1979) replicated this study in 1975 with similar results.

Researchers with the Heart Disease Epidemiological Study in Framingham, Massachusetts have collected data on a group of persons for almost thirty years. The Framingham Disability Study (Jette & Branch, 1981) is a recent component of this longitudinal study and was designed to identify the nature and extent of disability among non-institutionalized older adults. Physical disability was measured using adaptations of three instruments (Katz' ADL scale, Rosow & Breslau's Functional Health scale, and Nagi's work) among 2,654 subjects ranging in age from 55 to 84 years old. Almost all respondents were able to perform all six activities of daily living without assistance including 90% of the subjects in the 75-84 year old group. A significantly larger proportion of women than of men used help with grooming. A smaller proportion of persons were able to perform three gross mobility activities as compared to the ADL and the ability to perform them was related to age. Yet over 75% of those subjects between ages 75 and 84 reported they could climb stairs and walk one-half mile. There were substantial differences in

perceived difficulty in performing nine physical activities and the proportion performing them without difficulty decreased with advancing age. Women had more difficulty with the physical activities than men.

Social disability, the limitation in or inability to perform social roles or obligations, was also investigated among this same Framingham sample (Branch & Jette, 1981). The researchers assessed older adults' needs for help in performing five social tasks necessary to maintain independent living: housekeeping, transportation, social interaction, food preparation, and grocery shopping. Analysis of the data revealed the proportion of subjects with unmet or at risk of developing housekeeping needs significantly increased with advancing age and affected women across all three age groups more than men. Prevalence of unmet transportation needs also increased with age and affected women more often than men but only 10% of the oldest members of the sample had unmet transportation needs. Only 3% of the total sample had, or were at risk of developing, unmet social interaction needs and this factor was also related to increasing age. Social interaction needs were not sex specific. Food preparation needs were being met by all but one member of the group. A significantly smaller proportion of men than women were at risk for developing a food preparation need but only among the 65-74 year old group. A larger number of persons in the 55-64 year old group were at risk (11%) for

developing food preparation needs as compared to only 5% of those between the ages of 75 and 84. Grocery shopping needs followed the same pattern with risk of developing the need increasing with age but there was no relationship to sex.

Conclusions drawn by the researchers in the Framingham Disability Study are that the later years of life are characterized by substantial physical ability and the vast majority of older adults are self-sufficient in performing their social roles. The highest prevalence of unmet social needs were in the areas of housekeeping and transportation. Women appear to have more physical disability and more unmet housekeeping and transportation needs than men. One of the limitations in generalizing to other populations of older adults is the relatively high socioeconomic status and predominance of white adults in the sample

In summary of the perceived health needs of older adults, though chronic disease was common in the non-institutionalized older adult populations studied, the majority of subjects in each study were able to cope with the stressors of aging and accurately perceive their health needs and/or status. Physical function appears to be the most troublesome area of limitation as aging progresses and socioeconomic status may affect adaptive capacity. In most of the research, women reported more difficulties than did men.

In the next section of this chapter, the literature will be reviewed demonstrating effectiveness of relevant

health activities in maintaining maximum functional capability among older adults.

Performance of Health Activities

Ford (1981) examined the issues surrounding health promotion among the elderly population and found in the literature the proposal that more healthful life-styles and the exercise of greater personal responsibility for health by older adults will be less expensive than the present system of episodic care. While it will take some creative ideation and much hard work, the elderly may become more productive, provide services for their peers, and become more actively engaged in maintaining their own health in order to live a more interesting life. In this section of the literature review recent research relevant to performance of health (self care) activities by older adults and the benefits to be obtained from the same has been examined.

Tager (1981) discusses the process of achieving progressively higher levels of health and states the first step is the assumption of personal responsibility for health, including the making of personal choices at decision points which, in turn, requires a significant amount of learning. A condition of wellness can at least be approached by progressively limiting risk factors and increasing positive health-related behaviors. This puts a person in control of his own life in regard to his health and removes him from a state of dependence. Help is desirable in the form of

counseling, education, and workshop experience but the individual is responsible for selecting such programs from the alternatives available, and for following through with the recommendations, and for the eventual outcome. Individual knowledge must be increased and, in many cases, attitudes must be changed.

Pierce (1980) examined intelligence and learning in the aging adult and, after reviewing the literature, concluded that while there is no one method that will change or modify behavior, there are some strategies that can be utilized with older adults to facilitate learning. Use of common language, structuring content, providing opportunity to use content shortly after learning has occurred, pacing the learning, and use of cues to facilitate recall all are useful techniques in working with older adults. The conclusion was that elderly persons can continue to learn throughout life.

Whitbourne and Sperbeck (1981) state that memory is an essential part of learning and, based on research on memory, initial acquisition of material is less efficient in the elderly. Once information is acquired by older persons, their memory for that material can be as accurate as that of younger persons.

Shamansky and Hamilton (1979) list criteria for adult learning and stress that learning must be meaningful, problem centered, experience centered, and that the learner must have feedback about progress toward goals.

In the only study found testing the preventive Health Belief Model among older adult subjects Aho (1979) analyzed the preventive health behavior of a group of predominantly Black and Portugese-American older adults in participating in the Swine Flu Inoculation program of 1977. Results indicated that the behavior of senior citizens relative to obtaining preventive shots can be changed if health care providers provide them with accurate information concerning the safety of the immunizations for persons their age, the risks of side effects, and the risks of the illness for which the shot is designed to prevent.

Palmore (Neugarten, 1973) used data from the Duke Longitudinal Study of Aging to determine if the health care practices of exercise, weight control, and avoidance of smoking do lower rates of illness and mortality of the aged individual enough to justify lower health and life insurance premiums for persons who practice these activities. The data were collected from a group of 268 community volunteers (ages 60-94) between 1955 and 1959. Of the three health practices, the amount of exercise was most closely related to illness and mortality than were the other two health practices (weight control and avoidance of smoking). The subjects who reported more frequent exercise had less incidence of illness and survived longer. Persons reporting performance of all three health practices spent less time ill in bed than those engaging in none or only one of the

activities. Palmore concluded that all three health practices have an additive effect and each additional health practice tends to reduce the possibility of illness and early death.

In a large sample of randomly selected adults (N= 6,928) Belloc and Breslow (1972) examined the relationships between physical health status and practice of health activities. Physical health status was ascertained from answers to questions about disability, chronic conditions, impairments, symptoms, and energy level and subjects were placed into one of seven categories. Health activities included cigarette smoking, use of alcoholic beverages, sleeping habits, physical recreational activities, and nutrition as measured by regularity of meals and subject weight in relation to height. Most respondents reported usually sleeping 7-8 hours a night and had the highest physical health rating.

Results indicated that erratic eaters have poorer health and that eating only regular meals is associated with good health. Men with the best physical health were those less than 5% under weight or no more than 19.9% overweight. Women who were underweight or less than 10% overweight were slightly more healthy than the average.

Respondents who participated often in recreational activities of any type (active sports, swimming, walking, gardening, physical exercises, weekend auto trips) had better physical health status than those who did not

participate.

Only those subjects who reported partaking of five or more alcoholic drinks at one sitting departed significantly from the average in respect to physical health and the researchers concluded frequency of drinking was not associated with physical health.

Subjects who had never smoked reported better physical health than did present or past smokers.

In every age group those who reported all seven health activities also reported better physical health. The average physical health status of those over age 75 who practiced all seven health activities was about the same as respondents aged 35-44 who practiced less than three. These results seem to indicate that certain health habits are positively related to physical health status and the relationship of these habits was cumulative. These relationships were independent of economic status.

The same population sample and data were used to examine the relationship between physical health status, health practices, and the mortality experience of the subjects in the five and one-half years following the initial survey (Belloc, 1973). The researcher found a marked and consistent relationship between mortality and number of health practices, especially among male subjects and this relationship was independent of income. A larger proportion of older persons reported good health practices than

did the younger age groups. He concluded that mortality was more strongly associated with poor health practices than it was with physical health status or income and that among the older age groups there was a marked inverse correlation between the number of activities practiced and the mortality level.

Another study was conducted among a randomly selected population of Finnish 70 year old adults in 1973 (Stenback, Kumpulainen, & Vauhkonen, 1978). Among the 103 subjects, 31 reported no chronic illness and declared they functioned physically and socially as well as in their earlier lives. They reported the only change over the last 50 years was a mild to moderate decrease in physical strength. Only infrequently was diet-keeping a matter of great significance. There were 49 subjects who had had a life-long interest in exercise and the proportion of subjects with good subjective health was greater in the group reporting high physical exercise. The researchers concluded there was less illness among those with an active interest in physical exercise and with a restrictive attitude toward smoking and drinking.

McGlone and Kick (1978) studied 52 randomly selected persons over 80 years old to try to evaluate their state of health in relation to various factors, including health habits. Health habits examined were those identified by Belloc. Almost all the subjects slept 6-10 hours a night and few used any sedation. Most of the subjects were of

normal weight or slightly underweight. There were no obese individuals in the study. Of the 52 subjects, 47 were non-smokers. Most (40) subjects were active both physically and mentally. There were no heavy consumers of alcohol. The parents of all but one of the subjects had survived past the age of 70. Only five of the subjects had significant hypertension. Almost all the subjects were cheerful, optimistic, and had a good sense of humor.

Whitbourne and Sperbeck (1981) discuss coping strategies which can be used to compensate for age-related changes in function and propose that the elderly do not need to be taught what to do to maintain their health but need to be given the opportunity to use and refine what they already are doing and what they already know in restructuring their health activities as aging progresses.

Archer et al. (1979) found that among 679 noninstitutionalized older adults (mean age 69.5) 87% participated in social recreation (playing cards, visiting, dancing) because it involved being with other persons. Less than 50% of the respondents reported participating in active physical recreation (sports, walking) and only 3% reported no recreational activities at all. Performance of light exercise (gardening, housework, yoga) was reported by 98% of the study sample, 23% participated in strenuous exercise (jogging, swimming, tennis, calisthenics) and 15% reported moderate exercise (bicycling, health club, climbing stairs).

Only five participants reported no exercise activity.

In summary, performance of the health activities of exercise, weight control, avoidance of smoking and limitation of alcohol intake, good nutrition, adequate sleep, and engaging in recreational activities cumulatively contribute to a decreased incidence of illness and mortality and an increase in psychological health. With one exception (Aho) there were no studies which identified the relationship of health beliefs (perceived future health needs) to the incidence of practice of health activities by older adults.

The efficacy of specific health behaviors or activities in maximizing function of older adults has been explored in the next portion of the literature review.

Exercise

Specific studies have been done on the efficacy of physical exercise for older adults. Price and Luther (1980) stress that often, sedentary persons begin an exercise program without any idea what their goals are or how to reach them. Specifically designed, slowly building exercise of moderate intensity should be used by older adults to prevent them from overstressing themselves in the beginning and discontinuing the program. Price and Luther describe negative attitudes held by some older adults about exercising which include fear that activity would be too strenuous or embarrassment and list enabling factors for exercising. Among these are cost, distance to travel, and availability

of transportation as well as the availability of facilities at which to exercise.

DeVries (Lesnoff-Caravaglia, 1980) conducted a major study in which he used an experiemntal design to determine how trainable the older person is in relation to exercise. The 112 male subjects (mean age 70) were grouped and placed on an exercise regimen after undergoing a thorough medical examination and an extensive battery of physiological tests. The exercise program was designed to accomplish mainly cardiovascular conditioning. Subjects in the experimental group demonstrated an improvement of 29% in oxygen consumption per heartbeat as compared to those in the control group. The researchers did not expect more improvement than that observed among younger persons. Vital capacity improved 19-20% and ventilation at maximum exercise improved by 35%. Again the controls did not change. The study was repeated with women resulting in similar data with one dramatic exception: there was no improvement in respiratory functions. The significance of this finding is not known. DeVries concluded after several years of refining the research that brisk walking for fifteen minutes is very good exercise for the older adult and that regular exercise has a relaxing effect.

Bortz (1980) reviewed the literature in search of evidence that exercise can affect longevity and found none but did conclude as a result of his literature search that

a vigorous physical activity pattern has many advantages for the mind, body, and spirit.

Aloia (1981) examined the literature for evidence of the benefit of physical exercise in the maintenance of skeletal health. He concluded there is support for the concept that increased physical activity can prevent the loss of bone and muscle and the increase in fat that is usually observed with aging. He states further that this type of exercise may differ from that used to increase maximal oxygen uptake.

Researchers in Sweden investigated to what extent physical training might influence age-related changes in muscle strength, muscle mass, and muscle composition and act as a preventive measure against disability (Aniansson, Grimby, Rundgren, Svanborg, & Orlander, 1980). Both an experiemntal and a control group consisted of 12 men (ages 69-74) and those in the experiemntal group trained for 45 minutes three times a week for 12 weeks with exercises using only body weight. The subjects had no locomotor or cardiovascular symptoms nor had they taken part in any physical training during the previous ten years. Results demonstrated both aerobic capacity and muscle strength could be increased in 70 year-old men and the reduction in function seen with age seems to be a combined effect of inactivity and aging.

Exercise has been found to be beneficial in arthritis therapy. Kale and Jones (1981) recommend muscle strengthening exercises as physical therapy for persons with arthritis along with hot or cold applications to decrease pain.

Chapman, in a separate component of DeVries' exercise study examined joint mobility in older adults (Lesnoff-Caravaglia, 1980). Electronic instruments were used to objectively measure the torque required to passively rotate finger joints and data revealed that older adults did have much stiffer finger joints than did younger persons. An exercise program for the hands was initiated using the principles of progressive weight training and subsequent significant improvement resulted both among the older subjects and the young.

From the research reviewed, it is apparent that a regular, planned program of exercise can increase aerobic capacity, retard muscle and bone loss, and improve joint mobility of older adults, all desirable outcomes of health promotion.

Nutrition

Price (1979) states that visits to dentists are strongly correlated with the ability to pay. In 1975, 93% of the costs for dental care to the elderly were paid with private funds (\$502 million). The average dental expense of the elderly is higher than that of younger persons. Medicare does not cover expenses for repair of teeth or dentures.

Dentures lead to changes in preferred types of food. Since meats require more chewing and are expensive some older adults substitute carbohydrates for meats. This can increase dental caries as well as contribute to malnutrition and obesity.

Research was conducted to assess the dietary fiber intake of older women and to examine food behavior, health, and laxation factors associated with dietary fiber intake (Johnson, Kolasa, Chenoweth, & Bennink, 1980). The women (N=59) were selected from Nutrition Program meal sites in Michigan in 1977 and ranged in age from 58 to 89 years. Assessments were made of dietary intake, functional health, and laxation. The study was limited in that researchers had to estimate dietary fiber content in some foods consumed by subjects. The results suggest that generous amounts of any fruits, vegetables (including legumes), nuts, and whole grains will provide adequate dietary fiber for most persons. Intakes of dietary fiber ranged from 3 to 33 gm. per day (mean=14gm.). For most of the women dietary fiber intake was adequate to maintain normal laxation although the women who used laxatives regularly generally had fiber intakes below 12 gm. per day. Poor health and individual food preferences were related to low fiber intakes. There was no description of factors (perceptions;beliefs) which influenced choice of foods among this population.

Hull, Greco, and Brooks (1980) examined the effect of a fiber-supplemented dietary regimen on constipation among 270 residents of a long term care facility. Most of the subjects (mean age = 79.6 years) had limited physical activity, suffered from poor dentition and had relied on regular use of multiple laxatives prior to admission to the facility to control bowel activity. An analysis was made of the diet at the facility and it was determined that it contained 20-25 gm. of total dietary fiber daily, depending on what type of bread was chosen by the resident. To minimize the use of laxatives and prevent constipation the researchers increased the fiber content of the diet over time by the addition of bran to the cereal. One year after implementation "the use of laxatives was virtually eliminated" at the facility. The regimen was reportedly effective in preventing constipation in previously laxative-dependent residents as well as in those who did not use laxatives. For 40% of the subjects the bran-supplemented cereal was not totally effective until prune juice was added to the diet at which time bowel habits approached normal for these 40 residents. The researchers concluded that a fiber-supplemented diet can be effective in preventing constipation in an elderly, institutionalized population. Though this population sample was different from those adults residing in independent living quarters, similar results might be observed if the study were replicated elsewhere under more

rigid controls. Discomfort was experienced by most of the residents for the first two weeks of the program in the form of abdominal fullness and "gas" which might be a barrier to this form of therapeutic self-care for some older adults.

Though an intake of fiber in the diet has been demonstrated to prevent or allieviate constipation only one study was found which described the activity of independent older adults in relation to dietary fiber intake patterns and that was among a very specific population.

Health Screening

Morrison (1980) discussed a preventive approach to geriatric health care and proposed certain screening tests should be performed on older adults. Rectal-prostate examinations, regular testing of the feces for occult blood, breast examination, papanicolaou smear, pelvic-rectal exam for women, screening for hypertension, diptheria-tetanus inoculation at ten-year intervals, pneumococcal vaccine at three year intervals, and influenza vaccine yearly are recommended. Morrison warned that obesity may indicate nutritional deficiency if carbohydrates have taken the place of protein in the diet and advised regularly scheduled health monitoring of medication regimes, diet, social activity, neuro-sensory status, motor function and the feet. Breslow and Somers (1977) added annual dental prophylaxis to Morrison's recommendations.

Though health screening may be effective in early detection of disease no research was found which demonstrated this to be a fact through prospective study nor were any studies identified which described the older adults' willingness and/or activity (behavior) in regards to participation in preventive health screening except for Aho's analysis of participation in the Swine Flu inoculation program.

Socialization Activity

Evans (1979) discusses the need for older adults to maintain social activity in order to promote health. Maintaining social interaction is one aspect of self-care but among the elderly population previous support systems may not remain viable. This author cites studies demonstrating that the presence of an intimate relationship serves as a buffer against social losses and that there is a close association between the lack of relatedness and mental illness in old age. Evans concludes little research has been done which describes how the elderly perceive their need for social interaction and how they adapt their behavior to meet this need.

Relationships between morale, leisure satisfaction, leisure behavior, health, and income were examined in a sample (N=104) of noninstitutionalized older adults with a mean age of 72.5 years (Mancini & Orthner, 1980). Results indicated a significant relationship between morale and

leisure satisfaction. Older adults who reported more satisfaction with their leisure time tended to feel positive, emotionally stable, and content with their life in general. Health and health status were related to morale but not to leisure satisfaction. Leisure satisfaction was independent of socioeconomic status and dependent upon leisure behavior (activities) but not necessarily bound to a particular activity pattern among older adults. Results did not indicate that health was a primary determinant of morale. The researchers concluded that leisure issues are important for well-being of noninstitutionalized older adults and it is not necessary that the older adult select any particular activity or activity pattern. Leisure satisfaction was significantly related to morale as was socioeconomic status, followed by leisure behavior or activity. Self-rated health, the illness index and age were much less important.

Robinson (1981) states certain factors related to retirement influence the leisure time of older adults. First of all, the time they have for leisure activity is continuous time and may require goal-directed activity and planning. Because of socioeconomic constraints, leisure opportunities may need to be close to home and inexpensive. Leisure activity must help older adults retain a sense of self-worth and realign social relationships as well as to form new identity groups to replace the losses that may have occurred with retirement. Changing satisfactorily

from the work role to the leisure role is a major task. Robinson proposes if older adults are to achieve a high state of wellness they must recognize the value of leisure as an opportunity to develop and grow to a potential never before possible, a challenge requiring self-discipline since leisure can lead to boredom and apathy as well as creativity and satisfaction.

Medication Usage

Conrad and Bressler (1981) cite surveys demonstrating that 71% of persons over 75 years old receive regular medication that they administer themselves and 46% take three or more drugs each day. Ebersole and Hess (1980) devote a chapter in their textbook to drug use and misuse among the elderly and cite use of over-the-counter drugs (analgesics, antihistamines, laxatives), hoarding and using old medications, using discontinued medications, sharing medications with friends, making medication errors and omission of medications as common problems among this population. Krupka and Vener (1979) arrived at the same conclusion.

From review of these sources it is clear that older persons must understand the benefits of all medications they ingest, the possible side effects, possible interaction effects, the risks of omitting medication, and how to evaluate if the medication they take is producing the desired effect.

In summary, performance of specific health activities (exercise, nutrition, rest, avoidance of harmful substances, early detection of disease, social activity and creative use of leisure time, and knowledge of medications) can serve to maintain and promote function and contribute to the subjective well-being and longevity of older adults. The individual older adult must assume responsibility for making personal decisions about self-care. Assistance may be necessary to enable the older adult to identify health needs, risk factors, and appropriate health activities. The next section of the literature review will address the assistance available and assistance-seeking activity of older adults.

Expectations of Assistance by Older Adults

Blenkner (Kalish, 1975) identifies four normal dependencies of aging (economic dependency, physical dependency, mental dependency, and social dependency) and three types of help utilized by older adults (self-solution, in which the individual modifies his behavior or circumstances; kinship solution; societal solution such as social insurance, public housing and rent supplementation; and home health care).

Among both male and female older adults, functional ability to maintain self-care is the area that is the most likely to fail to the point of creating a dependency situation (Silberstein, Kassowsky, & Libers, 1977). The aged

seek assistance from their kin first (Ebersole & Hess, 1980). Ebersole and Hess rank type of assistance provided by kin as taking parent places, help with personal finances, help with household chores, errands, emotional support, and inclusion in family rituals.

Archer (1968) found in planning for health maintenance programs for older adults that there is a strong tendency for persons in the lower economic group to visit a physician only when ill. She found that health is important to many older adults only as it becomes poor health and interferes with daily functioning and maintenance of independence. This finding seems to be contradictory to more recent health activity research. Archer also found that many elderly persons eligible for clinic care do not take advantage of the agencies where they might receive health supervision. A last observation Archer made was that older adults with private physicians do not have regularly scheduled health maintenance examinations.

Sivertson (1978) collected data on geriatric patients seen by office-based family physicians in Wisconsin (109 practices). Geriatric patients constituted 11.3% of all patients seen by these physicians. The average number of problems or diagnoses was 2.2 for each patient. The highest percentage of problems involved the circulatory system (33%) followed by endocrine, nutritional, and metabolic problems (9.1%). The researcher stated that socioeconomic needs,

preventive medicine and rehabilitation were conspicuously absent from the problem lists obtained in the study but argues that these problems are often beneath the presenting complaint of older persons.

Moore and Fillenbaum (1981) measured change in functional disability of geriatric patients seen in a family medicine program over a time span of 13 to 27 months. The patients had been initially evaluated by Moore (1978) and 48 of those initial 130 clients were re-assessed for the follow-up study using a stratified random sampling procedure supplemented by random sampling. The researchers found more improvement in physical health than deterioration, that social and ADL status remained the same, but that there was deterioration in functioning in the economic and mental health areas. Visits to a physician because of physical health problems was found to be reported more frequently in the follow-up evaluation than initially but the researchers did not conclude this was because they were more ill. In the initial assessment 13% of the subjects felt no help from family or friends would be available to them should they become sick or disabled while in the follow-up study 19% so reported. Utilization of nineteen generically defined services was measured (transportation, nursing care, physical therapy, meal preparation, homemaker service, etc.) both times and found to have increased or remained stable on follow-up evaluation. While the extent of use of services

changed there was little change in expressed need for services. The researchers concluded that there was a need in this practice for evaluation and intervention in the areas of social, economic and mental health as well as physical health and for use of a multi-disciplinary team approach to care.

Brody and Kleban (1981) studied the reporting and non-reporting of symptoms among 132 subjects aged 62 to over 80 (age range not given) and their collaterals (129 responsible relatives) by means of detailed interviews. A small majority of the subjects told someone (either a health professional, family member or friend) about their symptoms. Between 40 and 50 percent of the subjects did not tell anyone when they experienced dizziness, feeling blue, headaches, leg cramps and shortness of breath. The older adult subjects were as likely to report most symptoms to a family member or to a friend as to a health professional. Three types of symptoms were more likely to be reported to a health professional by older adults: shortness of breath, chest pain on activity, and unsteadiness on feet. Only one symptom of 20, forgetfulness, was more likely to be reported to the older adult's family.

Reasons given for not reporting their symptoms to anyone fell into six categories which were, in order of descending frequency, "no big deal," "nobody cares," "no one to tell," "normal aging," "don't want to bother people,"

"will tell the doctor at next appointment," and "others know." The researchers caution that data do not include the frequency or severity of the symptoms, their relationships to pre-existing diagnoses, or information about whether the older adults were receiving treatment. The researchers conclude there is a need for health education for the elderly about normal changes that occur with aging and the importance of reporting symptoms and that this education should also be extended to significant others and family members as they are in a position to make appropriate referrals and provide much of the care needed by this population.

Bloom and Soper (1980) reviewed journal publications concerning the evaluation of geriatric services and attempted to identify those studies that were well-designed and executed according to an established set of criteria with the goal of examining the evidence regarding the special health and medical services for the elderly and determining their validity and reliability. From nearly 1,000 articles published between 1967 and 1979 only seven met the original criteria. None of these published studies addressed the population of ambulatory, noninstitutionalized, healthy older adults.

Snider (1981) examined the relationship between age cohorts and the use of community-based health services in comparison with other enabling, predisposing, and health

status factors using a sample of 428 white, retired, non-institutionalized family heads 65 years of age or older. The researcher found that age differences among the elderly are unrelated to the use of health services and concluded that delivery of health services depends on the older adult's knowledge of health services, education, and monthly family income, even among a population who received, for the most part, fully subsidized health care (as is the case in Western Canada where this study was conducted).

In a national random sampling of 1509 persons aged 18 and above, Haug (1981) found that in a period of time dating from the previous Christmas persons over age 60 were less likely than younger persons to have experienced complaints classified as "less serious" by a panel of physicians but more likely to have experienced the more serious problems. Other findings were that older persons in general were more likely to get physical check-ups and over-utilize the health care system for minor complaints than younger persons but little difference existed between age groups in under-utilization of the health care system for conditions which should have received medical attention. The conclusion reached was that there is a need to educate the aging public on the "common complaints" in order to help them determine which symptoms require attention and which do not.

Age preferences for professional helpers was investigated through interviews of 621 persons aged 16 to 91.

"Professional helpers" were defined as physician, nurse, policeman, lawyer, clergyman, and teacher (Furchtgott & Busemeyer, 1981). The researchers found older persons preferred professional helpers that were older than those preferred by younger persons.

Wright, Berg, and Creecy (1979-80) investigated the influence of social factors on the use of physician's services by the elderly with special emphasis on race. Variables examined were demographic and sociopsychological predisposing factors, enabling factors (community health resources and insurance coverage) and need factors involved in illness level which relate to the individual's perception of symptoms (N=414). The mean age was 73.2 years, 83% were females, 24% were Black, and the mean income was \$2,600 per year. Analysis by partial regression coefficients revealed age, education, sex, and marital status were unrelated to utilization of physician services. Race (Black) was negatively correlated and income and presence of a regular source of medical care were positively correlated to physician utilization. Insurance coverage was not significantly related to use of medical services, a finding which the researchers attribute to universal use of Medicare and Medicaid among the study population. The most important variables affecting use of health care providers were current health problems, the impact of those problems on the subjects' functioning, and self-reported health status.

Wright et al. conclude that much more emphasis should be given to preventive health care among the elderly including early screening and diagnostic services although it is not clear to this researcher how the design of the study and the results would lead to this conclusion.

Auerbach et al. (1977) reported that among 100 non-institutionalized older adults (mean age = 72.1 years) 47% reported seeing a physician up to four times in the previous year, 24% had five to nine visits, and 29% saw a physician more than ten times. Only 12% of the sample had been hospitalized during that same period of time. Private physicians were the source of medical care for 47% of the subjects while 43% utilized local hospitals and 10% reported no usual source of care. Among the respondents not receiving Medicaid 70% reported difficulty meeting the costs of health care. No data were reported on the subjects' reasons for seeking medical care or the relationship between self-perceived health status and utilization of health care, though 11% of the respondents reported that physical impairment interfered with their access to medical care.

Archer et al. (1979) asked older adult subjects (N=679) what health activities they would like assistance with in future health promotion programs and found that weight control had the highest priority followed by exercise, cooking for one or two persons, blood pressure checks, shopping for sound nutrition, getting along with people, posture

improvement, how to live with and/or help others live with a disability, and smoking control. The last priority was sex counseling (5%).

Berkanovic, Telesky, and Reeder (1981) investigated the decision to seek medical care for symptoms (N=769). Variables examined were indicators of need (perceived health status, self-reported number of chronic health problems, amount of disability associated with the symptom), socio-demographic characteristics (sex, age [M=42.6], income, occupation, education, marital status, race), organization of care (access), utilization of social networks (relatives, friends), and health beliefs as defined by the Health Belief Model. Results indicated that the three major predictor variables in the decision to seek medical care were all symptom related. There were high correlations between specific health belief items but the researchers caution that since it was a retrospective study the subjects may have developed specific beliefs about susceptibility, seriousness, and benefits of assistance-seeking activity after obtaining physician services. There was no data reported on age range or numbers of persons in various sociodemographic groups.

In summary, researchers who examined the assistance available to older adults in all areas of need (physical, socioeconomic, and psychological functioning) point out that few services exist for older adults experiencing difficulty except in acute illness situations. No data was found

describing utilization of preventive health care. Older adults appear to utilize the health care delivery system for episodic illness care and attempt to cope with other health problems by themselves, through personal support systems, or not at all. Lack of knowledge, income, and educational level may affect their use of the health care system. Researchers in one study demonstrated the desire of older adults to receive assistance with preventive health activities.

In the next section of this chapter a brief review of the literature relevant to utilization of the preventive Health Belief Model has been presented.

The Preventive Health Belief Model and the Older Adult

The preventive Health Belief Model (HBM) has been formulated to enable health care providers to predict the likelihood of an individual to perform a specific health activity (behavior) by identifying the individual's perceptions of susceptibility to a disease or event, the perceived severity or impact of the disease or event on personal life, the benefits and costs of the preventive health activity, and the presence of various modifying and motivational factors which have been found to interact with all of the HBM variables (Becker, Drachman & Kirscht, 1972).

In the general population, the individual's perception of personal susceptibility to a disease or event has

been found to be positively related to the performance of a variety of preventive health activities (Mikhail, 1981; Williams & Wechsler, 1973; Jette, Cummings, Brock, Phelps, & Naessen, 1981). Perceived susceptibility has a strong cognitive component whereby knowledge can influence health activities. Researchers have demonstrated that biologic changes (hypertrophy of bone at joints, decreased pulmonary and cardiac function during stress, decreased sensory perception, increased frequency and precipitancy of urination, and less restful sleep), socioeconomic changes, and psychological changes (alterations in roles and intimacy patterns, need for reminiscence, new developmental tasks) do occur as aging progresses. The individual older adult's knowledge of these probable changes theoretically should positively influence their decisions to perform therapeutic self-care health activities directed toward preventing, delaying, or minimizing problems created by these aging changes. People, however, can only act on what they believe to exist even though their beliefs may not be congruent with those of health care professionals (Mikhail, 1981). Tager (1981) states that attitudes and beliefs have a greater effect on behavior than does the increasing of basic knowledge. Studies have been conducted to identify perceived health needs of older adults and the results indicate that while most older adults are able to cope well with the changes that occur as aging progresses, declining physical function

was perceived to be of greatest concern. Utilizing the HBM then, the researcher might predict that if perceived susceptibility to physical problems was present among an older adult population there would also be a high percentage of the same population who performed specific health activities to maintain physical function and prevent disability. There should also be less evidence of health activities in psychological or socioeconomic areas if perceived susceptibility to difficulties in these areas is not present. Several modifying and motivational factors have been identified in the research literature, however, that may affect the individual perceptions of older adults.

An individual's perceived health status has been demonstrated to be positively correlated with various health behaviors (Jette, et al., 1981). Researchers have found that older adults' self-reports of health status are reliable and valid. Age, educational level, occupational and marital status, availability of transportation, housing and social interaction, physical disability, presence of significant others, income, and life events have been identified as factors which affect perception of health among older adults. Researchers testing the HBM have also found that age has a modifying effect on health beliefs among the general population. In an experimental study (N=166) Haefner and Kirscht (1970) found that age was positively related to perceived susceptibility to and seriousness of

cancer and perceived seriousness of tuberculosis but the only age-related association to past health behavior was a positive relationship between age and restriction of caloric intake (age range 18-68 years). Jette, et al (1981) found that while there was a clear separation of condition-specific and general measures of perceived susceptibility among younger subjects there was little discrimination between general and specific indicators among respondents over the median age (38 years). Mechanic and Cleary (1970) found that sex and education were related to positive health behavior and that persons who perceived their health status less favorably also reported lower positive health behaviors or activities. Socioeconomic status, frequent interaction between non-kin, positive attitudes toward health care providers, internal locus-of-control, perceived benefits of preventive health activity, age, and gender were all found to be associated with preventive health behavior among the general population (Langlie, 1977).

Mikhail (1981) cites several studies testing the variables of the HBM in relation to performance of health activities. Though various motivational and modifying factors have been identified that affect self-perceptions of health by older adults and preventive health behaviors in the general population, no studies were found that identify the relationships among perceptions of health needs, motivational and modifying factors, and performance of health

activities specifically among the older adult population. Persons are more likely to undertake health activities when they believe the activity is effective in preventing or detecting the disease and therefore reduce its threat to them (Mikhail, 1981). Researchers have found that good health practices in general contribute to the longevity and life satisfaction of older adults. Performance of specific health activities (exercise, nutrition, rest, avoidance of harmful substances, early detection of disease, social activity and creative use of leisure time, and proper use and knowledge of medications) have been demonstrated to be effective in maintaining and promoting function in the older adult population.

Knowledge and the same motivational and modifying factors can also affect the individual's perceptions of the benefits and costs of health activities. The individual must believe the health activity is effective in promoting their personal health if they are to be likely to perform the activity. For older adults, there may be many barriers to the activity including monetary costs, pain (as with exercise or changing fiber intake), inaccessibility, inconvenience, and lack of peer support. Mikhail (1981) cites one study in which the researchers found a negative relationship between perceived susceptibility and barriers but were unable to draw any firm conclusions from the data. Mechanic and Cleary (1980) examined various factors associated with

positive health behavior and concluded that poor health behavior is part of a life-style reflecting inadequate anticipation of problems, inability to mobilize to meet problems, and ineffective coping techniques. A finding common to most research conducted among the noninstitutionalized older adult population was the ability of individuals to cope with most problems adequately. It would appear that positive health practices would be common among noninstitutionalized older adults.

Tager (1981) states that although accepting responsibility for self-care removes an individual from a position of dependency and reliance on others it does not mean that help is not desirable in the form of education, experience and counseling but only that the individual is responsible for seeking such assistance when appropriate. Haefner and Kirscht (1970) found that the nature of the activity was important for many persons in determining actual performance and that some activities, such as seeking health screening for disease prevention, were motivated by cognitive factors. Other activities, such as dietary patterns and long-established habits were not influenced by interventions directed at changing beliefs. The conclusion reached was that habits and well-ingrained behavioral patterns involve many motives that go beyond health care and altering an individual's beliefs about health may change actions largely motivated by health matters but may not alter

behaviors that simultaneously satisfy many different motives.

For the older adult, since they become more individual as they grow older, it may be difficult for health care providers to affect change. The implications of researchers who have tested the HBM are that attempts to influence an individual's health activity should be based on better knowledge of their motives and health beliefs (Mikhail, 1981). This assessment may reveal inappropriate health beliefs as well as actual and potential barriers. Intervenors should consider individual differences for all persons, especially older adults. Researchers have shown that few services exist for older adults at-risk or experiencing difficulty except in acute illness situations and many barriers affect their use of the health care system. There is some evidence, however, that older adults do wish assistance with preventive health activities. Utilization of the preventive HBM as a framework for assessment of the capability of noninstitutionalized older adults to perform therapeutic self-care could identify appropriate intervention points for the education and counseling that would assist them to maintain their health and independence.

Summary of the Literature Review

From the review of the existing literature of perceived health needs of older adults, benefits and performance of health activities, and expected assistance from health care providers, it appears that there is a minuscule

body of scientific knowledge about what might be expected as aging progresses, what benefits may be derived from certain health activities, and what services should be provided for older adults by health care providers. This researcher, however, has found a lack of research identifying the perceived future health needs of persons over age 65 in the area of expected changes as aging progresses, self-perceptions of the benefits of life-style changes and health activities by older adults, and the expectations of assistance from health care providers. In this study, the researcher will attempt to identify the beliefs of a small population of older adults about their future health needs, their stated performance of preventive health activities, and the extent of assistance they expect to receive from health care providers.

In the next chapter the methodology utilized in this study for collection of data has been described.

CHAPTER IV
METHODOLOGY AND PROCEDURE

Overview

This descriptive study was designed to identify individual older adults' perceptions about their changing health needs, their stated performance of health activities, and the assistance they expect to receive from health care providers to meet these needs and perform these activities. It was expected that the results of data analysis could specifically identify (1) the degree and direction of the relationship between perceived health needs and practice of health activities; (2) the degree and direction of the relationship between perceived health needs and expected assistance from health care providers; and (3) the degree and direction of the relationship between the stated performance of health activities and expected assistance from health care providers.

The subjects were fifty-six non-institutionalized adults aged 65 and older residing in independent living quarters in a midwestern community of approximately 200,000 persons. Perceived susceptibility to specific health problems as aging progresses and stated performance of specific health activities were two study variables derived from the

preventive Health Belief Model (Rosenstock, 1974). The third study variable, expected assistance, was derived from Orem's nursing model (Orem, 1980). Modifying variables such as age, sex, marital status, income, household members, type of dwelling, occupational status, years of retirement, perceived health and ability to understand the English language were determined through collection of socio-demographic data. One possible motivational factor, contact with a health care provider, was measured by collection of data concerning the frequency of utilization of health care services during the previous twelve months. The instrument was presented to groups of participants and self-administered. The data was analyzed by means of descriptive and inferential statistical procedures.

The purpose of this chapter is to present the methodology and procedures utilized by the researcher in the present study. The sample, settings, instrument, pre-test procedure, data collection procedure, human rights protection, scoring techniques and procedures utilized for data analysis are described.

Sample

The participants were 56 English-speaking older adults residing in independent living situations who perceived themselves to be in good health, were willing to participate in the study, and who completed the instrument.

The voluntary sample was obtained from older adults residing in a midwestern urban-suburban-rural community of approximately 200,000 persons. The subjects were either residents of subsidized senior citizen housing units or volunteer workers at a local hospital. Results of this study can only be generalized to individuals who possess the same characteristics as the subjects who participated in the study and may not be indicative of the entire non-institutionalized older adult population.

Older Adult

The older adult was defined as any individual who had attained the age of 65 years or older.

English-speaking. The English-speaking older adult was defined as any individual 65 years old or older who utilized English as their primary language.

Independent living situations. All of the subjects owned or rented their own home or apartment and did not require assistance with activities of daily living.

Perceived good health. All subjects who participated in the study responded "Yes" to the question: "Do you feel you are generally in good health?." No attempt was made to obtain data regarding the presence of chronic illness since many older adults function and feel well despite these conditions.

Willingness to participate. The purpose, criteria, and technique of administration of the instrument were

explained to the potential subjects by the researcher and residence manager/volunteer director prior to the date of administration of the instrument so that only persons who were willing to participate were present at the specified time, date, and place.

Completion of the questionnaire. Only subjects who completed the last section of the instrument (socio-demographic data) were included in the study to further insure that participants were able to read and understand the questionnaire.

Settings

Volunteers from five settings participated in the study. Initially, six federally subsidized senior citizen housing units were contacted. The manager of one of the units stated that the residents at that particular site had been surveyed by at least six other investigators for various reasons in the previous two months and felt that they would be reluctant to participate in another study at that particular time. This researcher decided that if that site were used it might introduce an additional bias into the study as those residents might be "test-wise." The manager of a second senior housing unit felt the instrument was too long and too complicated for the residents at that setting and declined the researcher entry. The remaining four

units were utilized for subject selection. Rental fees charged in each of the federally-subsidized housing units were based on 25% of annual income minus annual medical expenses. Residents had to undergo a physical examination prior to acceptance in the unit and had to be capable of independent living without the assistance of care-taking services.

The fifth setting was a local metropolitan hospital which utilized retired older adults as volunteers in various departments. To insure anonymity of respondents there was no means of identification on the individual instruments to connect them with a particular site. Each of the settings will be further described and numbered in order of sequence of data collection (Site #1 = first administration date, Site #5 = last date of administration).

Site #1. The first setting was a privately owned, federally subsidized, low-income housing unit containing 100 apartments. At any one time there were approximately 120 residents. For an older adult to be eligible to rent an apartment in this setting his/her income must not exceed \$14,450 per year. The average income of the residents in Site #1 was about \$7,000 per year. This unit is located in a small town within the greater metropolitan area but in a combination rural-suburban setting to the west of the urban metropolitan area. All residents were members of a governing council which was responsible for setting the policies

of the residence unit. The executive committee of the council was elected by the entire population of residents every year. The average attendance of residents at council meetings was 25. This unit had been open three years. Each apartment had one or two bedrooms, a living room, kitchen, and bathroom. There was a large community room used for various recreational, social, and business activities. The housing corporation employed a residence manager and a custodian. The apartment unit was within walking distance of a small shopping center and within one mile of the business area of the town which contained a library, two banks, two pharmacies, and a theater as well as assorted shops. Limited bus service (two times a day) was available to the larger urban area. At the time of participation in the study, the town had an active senior citizen program funded under the larger adult education umbrella which included a nutritional meal site.

Site #2. The second setting utilized for selection of subjects was also a privately owned, subsidized low-income housing unit containing 100 apartments very similar to Site #1. It was completed in May of 1979. In this unit there were approximately 110 residents at any one time and a waiting list of 300 applicants. Income criteria was the same as in the first site but average income of the residents was only \$4,800 per year. This housing unit was located in a more urban area of the community close to a large shopping

complex and a hospital. Bus service was available two times each hour during the day and evening at the door of the apartment building. There was a resident manager at the site employed by the housing corporation and a secretary. The custodian was an older adult and resided in the unit with his wife, free of charge. This site also served as an educational site for senior social work internes from Michigan State University. There was an active residence council at this site with average monthly attendance of 60 residents.

Site #3. The third setting from which subjects were obtained was a city-owned subsidized housing unit containing 189 apartments and approximately 229 residents. It was the largest and the oldest unit utilized in the study. There was a hierarchy of administrative personnel employed by the city to operate and manage this unit and several other city-owned low-income complexes. The manager for Site #3 was also responsible for managing another senior housing unit. To be eligible to reside in Site #3 individual income must not exceed \$11,070 per year. This unit was located within one-half mile of Site #2 and was also an educational site for social work internes. There was a resident's council but participation was relatively low with an average of 40 residents at each meeting.

Site #4. The fourth site was the Health Education department of a hospital in the urban area. The hospital

had 200 acute-care beds and 49 mental health beds. Over 800 persons volunteered time in various departments of the hospital performing different duties. Subjects for this study were obtained from a group of 75 retired older persons who voluntarily staff the Health Education Department. Hunter and Linn (1980-81) examined the psychosocial differences between older persons (mean age = 73, 75; n=102) who were active volunteers in the community and those who were not and found that elderly volunteer workers were more satisfied with life, had a stronger will to live, and reported fewer somatic, anxious, and depressive symptoms than did those persons in the sample that did not engage in volunteer work. The older adults working in this department were responsible for planning, implementing, and often teaching health education programs such as arthritis, stress management, nutrition, weight loss, and hypertension. These volunteers had been actively recruited from Michigan State University and local businesses and were, for the most part, highly educated, successful professional retired persons. The hours contributed by the Health Education volunteers ranged from one hour a month to twenty hours a week. The Health Education Director was employed by the hospital and was responsible for coordinating and directing volunteer activity.

Site #5. The last site utilized for selection of subjects was another privately owned subsidized housing

unit containing 100 apartments and an average of 120 residents at any one time. It was very similar in physical design to Sites 1 and 2 and located in a rural-suburban community to the south of the metropolitan urban area. There was a large shopping center next to the site and a branch of the Public Library on the housing unit grounds, though not within the physical boundaries of the apartment building. Bus transportation was more readily available at this site than at Site #1 but not as frequent as in the urban settings. Eligibility requirements were the same as for Sites 1 and 2. The residents' council at this setting was very active with a usual attendance rate of 80%. A unique characteristic of the residents of this setting was their involvement as a group in many community programs such as school fairs, church potlucks and bazaars, and fund-raising programs for specific causes such as a cystic fibrosis camp.

In each of the housing sites the community room was utilized for instrument administration. The rooms were identical in accessibility, lighting, and equipment. Tables were arranged in rows with seating at each table for up to twelve persons. Coffee and tea were made available by the residents' council and in each setting some residents brought snacks for all the participants to eat while they were completing the questionnaire.

At the hospital site, the conference room was utilized for administration of the instrument. The room was light, newly redecorated and contained a large table seating twelve with accompanying plush upholstered chairs. Coffee and tea were provided at the hospital site.

Instrument

The instrument was based upon the preventive Health Belief Model (Rosenstock, 1974) and Orem's Self-Care nursing model and combined items drawn from the literature review and from consultation with two gerontological specialists on the faculty at Michigan State University. From these three sources the instrument was developed and specific items selected to address common changes occurring as a result of the aging process, common health needs of older persons as identified by both health care personnel and older adults themselves, and health activities which may be beneficial to older adults in maintaining their health and/or overcoming health problems. For each of the specific health needs or health activities items selected, the respondents were asked to identify if they expected to receive assistance from health care providers. To further clarify the variable, expected assistance, the respondents were asked to identify the person from whom they would be most likely to receive assistance.

The total instrument contained 132 items which measured each of the major perceptual variables of the study: perceived susceptibility to specific health needs (39 items), stated performance of specific health activities (27 items), and assistance expected from health care providers (66 items, Appendix B). Motivational and modifying factors were assessed by means of collection of socio-demographic data (14 items, Appendix B). An additional 66 items identified the type of individual (including self) most likely to help the older adult with a health need or activity (Appendix B).

The instrument was printed in large type using both upper and lower case letters on uncoated paper (to eliminate glare) in an effort to enable it to be more easily read by a population in which decreasing visual acuity might be a problem. It was designed to minimize the amount of reading necessary, to avoid lengthy sentences, and to require a minimum of writing skills. The items in the instrument were not numbered in an effort to eliminate superfluous material which might confuse the participants.

With the exception of the socio-demographic items age, language other than English, and years of retirement, all items were designed to be answered by a check mark.

Operational Definitions of the Study Variables

Perceived Health Needs (Total)

Perceived health needs (Total) corresponded to perceived susceptibility in the Health Belief Model and were defined as those specific perceived requirements of the individual older adult which might be experienced as aging progresses and must be met if s/he is to function at his/her maximum physical, socioeconomic, and psychological potential. The items measuring perceived health needs were drawn from the literature review and the expertise of two gerontological faculty persons were represented by the first thirty-nine items in the instrument (Appendix B, pages 254 through 257). Perceived health needs (total) were further categorized into physical health needs, socioeconomic health needs and psychological health needs.

a. Physical health needs were defined as past or future changes in locomotion (pain and stiffness in joints), nutrition (need to change diet, difficulty chewing, denture problems), aeration (shortness of breath), elimination (constipation, frequency of urination, inability to hold urine) circulation (cold hands and feet, numbness of hands and/or feet, swelling of hands and/or feet), sensation (increasing deafness, a change in ability to smell odors, visual changes, loss of balance), and rest (daytime tiredness, difficulty sleeping) and are represented by items 1 through 17 of the instrument (Appendix B, pages 259 and 260).

b. Socioeconomic health needs were defined as past or expected future possible difficulty paying for food, housing, clothing, health care services, utility bills, and social activities and were represented by items 18 through 23 of the instrument (Appendix B, pages 260 and 261).

c. Psychological health needs were defined as past or expected future changes in roles (increased difficulty doing household tasks, changes in daily routines, changes in social activities, changes in work activities), intimacy (changes in sex and marital relations), family relationships (increased need for family closeness), self-esteem (positive feelings about self, ability to cope, confidence in doing things as well as others, feelings of uselessness), memory (difficulty following medication schedule, forgetfulness), desire to reminisce, ability to learn new things, and problem-solving ability (difficulty making up mind, thinking through problems) and were represented by items 24 through 39 of the questionnaire (Appendix B, pages 261-262).

Performance of Health Activities (Total)

Stated performance of health activities (total) corresponded to preventive health activity in the Health Belief Model and were defined as any self-care activity practiced by the older adult and directed toward maintaining physical, socioeconomic, and psychological health. The items which were designed to measure stated performance of health activities were also drawn from the literature

review and the advice of gerontological experts and were contained in pages 264 through 266 of the instrument (Appendix B). Health activities were further categorized into activities to maintain physical health, socioeconomic health, and psychological health.

a. Health activities to maintain physical health were defined as exercise, nutrition (weight control, intake of fresh fruits and vegetables, intake of 6-8 glasses of fluid a day), use of tobacco, use of alcohol and caffeinated beverages, dental care (see my dentist every year), annual physical examination, adequate rest (schedule rest periods during the day, obtain 6-8 hours of uninterrupted sleep each night), use of health care services for illness, and knowledge of medications (know what each medication is supposed to do, know how to tell if each medicine is working properly). Activities to maintain physical health are represented in the instrument by items 1 through 13 (Appendix B, pages 264 and 265).

b. Health activities to maintain socioeconomic health were defined as utilization of Medicare, Medicaid, nutrition programs and free health screening programs (Appendix B, items 17, 18, 19, and 20, pages 265 and 266).

c. Health activities to maintain psychological health were defined as participation in a hobby, social activities with friends and/or relatives, reminiscing (have someone to share memories with), family relationships (have

someone with whom to share intimate thoughts and activities, keep in close contact with relatives), educational programs, attention to personal appearance (make efforts to always look my best), stress management (have developed ways to reduce stress and tension, seek advice when upset), and finding ways to be useful. Activities to maintain psychological health are represented by items 14, 15, 16, and items 21 through 27 of the instrument on pages 265 and 266 (Appendix B).

Expected Assistance

Expected assistance was adapted from Orem's nursing model and defined as performing, guiding, providing for a developmental environment, and teaching of self-care activities necessary to reach and maintain maximum physical, socioeconomic, and psychological health. Expected assistance from health care providers was measured in the second column of responses in the instrument and indicated by the agreement or disagreement that the individual older adult expects to receive assistance from a health care provider with a specific health need (Appendix B, items 1-39, pages 259-262) or health activity (Appendix B, items 1-27, pages 264-266). Further clarification of expected assistance was measured in the third column of the instrument by the participant's delineation of the persons most likely to help them with a specific health need or health activity.

Health Care Provider

Health care provider was defined as that professional person who may provide health assistance with health needs and health activities of older adults directed toward maximizing physical, socioeconomic, and psychological health. The item health care provider was categorized into physician, nurse, and social worker (Appendix B, column 3, pages 264-266. Additional categories (relative or friend, myself, other, and no one) were provided to identify if the subject expected assistance but from persons other than health care providers.

Older Adult

Older adult was defined in many different ways in the literature. For purposes of this study older adult was defined by age and included all persons who had attained the age of 65 years or older, were ambulatory, resided in independent living quarters, were oriented to time, place, and person, could communicate verbally and by writing in the English language, and considered themselves healthy in response to such a question. Age was designated on the instrument in the socio-demographic section under Age. Because the participant had to be in a certain location outside the home all subjects were considered ambulatory. All study setting groups consisted solely of persons living independently. By virtue of their presence at the designated date, place and time, all participants were considered

oriented to time, place and person. Primary language, English, was designated in the socio-demographic section. Persons had to be able to read the instrument in order to complete it.

Modifying and Motivational Variables--
 Socio-demographic Data
Modifying Factors

Socio-demographic data were collected in order to determine age, sex, marital status, occupational status, years of retirement, type of dwelling, household members, income, perceived health, and native language of the participants.

Age. The age of each participant was determined in an open-ended question and recorded as a continuous variable. For the purposes of analysis, the continuous scores were later categorized into four groups (65-70, 71-75, 76-80, 81-89).

Sex. The males and females who participated in the study were differentiated in order to measure possible variations in perceptions of health needs, stated performance of health activities, and expectations of assistance according to gender.

Marital Status. The marital status of the older adults who participated in the study was categorized into five groups: married; single, never married; separated; divorced; and widowed.

Occupational Status. As identified in Chapters I and III, persons on a limited fixed income may have different perceptions and resources than do persons who are gainfully employed outside the home. To measure the possible differences among the variables which might be related to employment of older adults, occupational status was divided into 4 categories; working at a regular job outside the home for money, housewife, other, and retired.

Years of Retirement. Since perceptions and resources might change over time after retirement, the number of years of retirement was measured in an open-ended question following the category "Retired" in the socio-demographic item which identified occupational status (Appendix B).

Type of Dwelling. Some participants in the present study resided in age-segregated low-income subsidized housing units and some did not. Lawton, Nakemaw and Yeh (1980) examined the relationships among several physical-environmental characteristics (size of community, age composition of housing units, active versus quiet neighborhoods, overall quality of neighborhood, neighborhood shopping facilities, and neighborhood enriching facilities and six measures of well-being using a sample population of tenants residing in housing for the elderly (N=3327, Mean age = 74.9 years). Housing satisfaction, motility, higher morale, a higher level of friendship behavior, and family contact were all found to be greater among persons residing in age-

segregated sites located in small communities in high-quality neighborhoods where the risk of crime was low. To identify the effect of type of residence on the variables in the present study participants were asked to identify where they lived as one- or two-family house (owned or rented), apartment, or rented room.

Household Members. Perceptions of older adults might be influenced by persons with whom they share living quarters. To measure the influence of this modifying factor on the variables in the study participants were asked to identify with whom they lived: live alone; spouse (husband or wife); spouse and child (or children); child (or children); relatives (for example: brother, sister, or cousins); or non-relatives (friends).

Income. As identified in the literature review, income could exert a strong influence on perceived health needs, performance of health activities, and assistance-seeking health behavior. Income was divided into four categories:

- I. Less than \$5,000
- II. \$5,000 - \$9,999
- III. \$10,000 - \$14,999
- IV. \$15,000 or more

Native Language. Since the instrument was written in the English language participants were requested to identify the language spoken in their home as a child. If not English, the subjects were asked to identify the language in an open-ended question (Appendix B).

Perceived Health. Since self-perceived good health was a criteria for inclusion in the study, participants were asked to respond "Yes" or "No" to the question: Do you feel you are generally in good health?

Motivational Factors

As documented in Chapters I, II, and III, older adults' perceptions of health needs and performance of health activities may be positively or negatively influenced by contact with health care providers. To measure the possible effect of health care provider contact on the variables in the study three items were designed to identify if the individual participant had a regular doctor s/he tried to see first if s/he became ill; if the participant had had a physical check up within the last year; and how frequently the participant had utilized health care services in the past twelve months.

Reliability of the Instrument

The reliability of the instrument developed for the present study was assessed by means of the internal consistency approach to determine the extent to which all of the sub-parts of the instrument were measuring the same characteristics. Internal consistency best describes the condition in which there is a high degree of interrelatedness among the items of a scale or an instrument (Crano & Brewer, 1973). Internal consistency was computed using the

coefficient alpha method.

Coefficient alpha is a statistical value representing the average inter-item correlation of all of the items constituting a scale and is the best estimate of internal consistency (Crano & Brewer, 1973). Without interrelatedness among the items of a scale any total score would not reflect an accurate measurement of the attribute under investigation.

For the present study, coefficient alpha was computed for each of the ten scales in the total instrument. Factor analysis was conducted to eliminate items from each scale that were not correlated with the other items in the same scale. In this manner, only items with a high degree of interrelatedness were included in the data analysis. Since this instrument was developed specifically for the present study no prior reliability estimates were available. Computation of the alpha coefficient was necessary to determine if the selected items in each scale were, in fact, measuring the same concept.

The reliability coefficient reflects the extent to which an instrument is free of variance due to extraneous factors. The closer a reliability coefficient is to 1.00 the more the instrument is a reflection of the true differences of test subjects on the attributes the instrument is purported to measure (Borg & Gall, 1979). If the coefficient alpha is .80 or higher the instrument or scale may be

considered internally consistent (Crano & Brwer, 1973). A reliability coefficient of .90 would indicate that 81% of the differences in the scores were due to true differences in the study population on the specific attribute under investigation while only 19% of the variance was due to random fluctuations.

In the present study the researcher was interested in comparing groups of participants on the various concepts under investigation. Every attempt was made to attain a reliability coefficient of at least .60 for each of the scales and sub-scales of the instrument. Should this level not be obtained, addition of more items positively correlated with the other items of the scale would increase the reliability coefficient.

Validity of the Instrument

Validity is more difficult to measure than reliability and refers to the degree to which the instrument measures what it was designed to measure. A measuring device which is not reliable cannot be valid but an instrument can be reliable without being valid (Pollit & Hungler, 1978).

Researchers recognize many different types of validity such as content validity, predictive validity, concurrent validity, and construct validity (Borg & Gall, 1978). Content validity was assessed for the instrument utilized in the present study.

Content validity is a reflection of the sampling adequacy of the content to be measured, or, how representative are the questions on the instrument of all the possible questions which could be asked on this topic? Content validity is usually utilized when the researcher is measuring knowledge (Pollit & Hungler, 1978). In the present study the concepts were defined as commonly occurring changes and problems which occur as aging progresses and by health activities which might be beneficial in minimizing the effects of aging changes and problems. Content validity, therefore, was deemed appropriate by the researcher. Content validity was estimated by the judgment of the researcher, review of the literature, and by consultation with two gerontological experts from the Michigan State University faculty.

Pretest of the Study Instrument

The total instrument (Appendix B) was pretested for readability, clarity of directions, and time required for completion by four older adults residing in the greater metropolitan area. The present sample was similar to the study sample in that all four subjects were over age 65, resided in independent living quarters, spoke English as their primary language, considered themselves to be in good health, and represented both sexes (1 male and 3 females). None of the pretest subjects resided in low-income housing units and were probably more characteristic of the study

subjects obtained from the group of hospital volunteers than the subjects recruited from subsidized housing units.

The pretest subjects were requested to provide feedback to the researcher about the readability, both in relation to the print size, style, and instrument format, and to the terminology utilized in the wording of the test items. Feedback was also requested about the clarity of the directions and the length of time it took for completion of the instrument. Pretest subjects were also requested to make any additional suggestions to improve the instrument which would make it easier for their peers to complete.

All of the pretest subjects found the instrument "interesting" and easy to complete. They each reported it took them one-half hour to complete. Two pretest subjects requested additional information about changing health needs and beneficial health activities for older adults. As a result of these requests, the researcher prepared a summary statement describing most of the items on the instrument and identifying some service agencies for older adults in the local area (Appendix C).

Data Collection Procedure

Data were collected from groups of older adults in the months of October, November, and December, 1981 and the first week of January, 1982. Permission to utilize each of the five sites for recruiting volunteer older persons to

participate in the present study was granted by the residence managers responsible for the housing units and the director of the Health Education Department of the hospital. Each of these managers and the hospital department head were first contacted by means of a letter (Appendix A) introducing the researcher, the purpose of the study, the criteria for subject participation, and assuring subject anonymity. The letter was followed within seven to ten days by a telephone call from the researcher to the identified responsible party at each site. During the telephone contact, arrangements were made for the researcher to meet with the contact person so that the instrument might be reviewed, to answer any questions, and to establish protocols for meeting with prospective participant groups. In each of the housing units, once permission was obtained from the residence manager, the researcher was invited to attend a resident's council meeting to explain the study to the prospective volunteer subjects.

At each council meeting the researcher introduced herself, explained the purpose of the study, the criteria necessary for an individual to participate (age, independence, health, English-speaking, willingness to participate), the anonymity and confidentiality of the information collected, and the time expected for completion of the instrument. The researcher also answered questions from prospective participants at that time. In each setting, the council

president asked the residents to decide by a show of hands if they would be willing to allow the researcher to recruit volunteers from their respective residential unit. When that permission was granted the residents decided on the date and the time for the researcher to return to administer the instrument. That date and time, along with the researcher's name, the purpose of the study, and assurance of anonymity was included in the minutes of the council meeting.

At the first site the residents decided that the researcher could collect data immediately following the meeting that same morning. Only a few residents were present at the council meeting and only three participants completed the instrument.

At the other three housing units a different date was requested by the residents and the time was established to coincide with a regularly scheduled social hour. The "social hours" were times set aside for the residents to congregate for coffee, tea, and snacks on a "drop-in" basis.

At the hospital site permission was obtained from the Health Education director to recruit volunteers in the same manner as in the housing unit sites. Since the older adult volunteers met regularly at the hospital the director made the request for participation at a regular meeting when the researcher was not present. Prospective subjects were told the background of the researcher, the purpose of the study, the criteria for participation, the nature of the anonymity

and confidentiality, and the expected length of time for completion of the instrument. Both volunteer committees approached by the director agreed to participate in the study and the date of administration was scheduled for the next regularly scheduled committee meeting. The researcher was asked to arrive at the expected time of adjournment and the director requested that any committee members who did not wish to participate leave immediately after the scheduled committee meeting. All committee members of both committees completed the questionnaire.

At the time of administration of the instrument the researcher again introduced herself and reiterated the information on the purpose, criteria, anonymity and time commitment. The subjects were informed that they could leave at any time whether the instrument was completed or not. The researcher emphasized that there were no "right" or "wrong" answers and that the answers were expected to vary from one individual to another since each participant had different expectations and health practices depending on their own particular life circumstances. Conversation was not restricted by the researcher but the participants were asked to answer the items based on their own opinions rather than the opinions of their neighbor or friends.

The instruments were distributed, the instructions verbally explained, and the researcher informed the participants that individual questions would be answered if

necessary. Participants were provided with pens and/or pencils placed on each table and instructed to place the questionnaire in a cardboard container located on a table by the door when they left. They were also invited to pick up an informational packet describing most of the items addressed in the questionnaire as they left and to discuss any questions they had with the researcher after they turned in the instrument.

At site number three a senior social work student was present to assist the researcher and observe the administration procedure. The student had been placed at the housing unit for three months prior to the data collection date at that site as part of her required community placement internship. Since that administration date was very near Christmas many residents were not able to be present but still wished to participate. The researcher agreed to allow those residents who wished to participate but who could not attend on the scheduled date to complete the instrument the first week in January. At that time the instrument was readministered by the social work student. The researcher was available by telephone on that date to answer any questions which might arise regarding the data collection procedure and/or the instrument itself. The student received one credit for independent study for her assistance in the research project. The researcher requested that if the student observed a participant completing the

instrument for the second time the student was to mark the instrument in some manner so it would not be included in the data analysis: this did not occur.

The length of time required for completion of the instrument varied among both the sites and the individuals and ranged from fifteen minutes (one individual at the hospital setting) to one hour and ten minutes. In general, the hospital volunteers completed the instrument in less time than did the resident volunteers from the housing units. The atmosphere at the hospital setting was business-like whereas in the residential units the mood was more social.

The researcher was asked very few questions about the instrument or procedure by participants. The most frequent question was if more than one person could be listed as most likely to help. The researcher explained that the answer should reflect the one person most likely to help each individual with a particular health need or health activity.

Upon completion of the instrument the participants deposited them in the appropriate repository and availed themselves of the informational packet. The completed instruments were not handled by the researcher at the site and were stored in the researchers home in a metal file. Data from the instruments were recorded with no attempt made to identify the setting site from which the data were obtained.

Human Rights Protection

No personal identification data were obtained from any individual participant in the present study. Participation was voluntary and the contact person at each site did in no manner attempt to influence the individual's decision to or not to participate in the study. The researcher had no contact prior to administration of the instrument with any of the individual subjects other than that which might have occurred at the council meeting. The completed instrument was placed in a common depository with no handling by the researcher until after leaving the premises. The complete procedures involved in Human Rights Protection are detailed in Appendix D.

Scoring

In the following paragraphs the scoring procedures for the instrument are described.

Socio-demographic Data

In the socio-demographic section of the instrument (Appendix B) data were collected to describe age, sex, marital status, native language, occupational status, years of retirement, type of dwelling, ownership or rental of dwelling, household members, income, perceived health, presence of a regular physician, receipt of a physical examination in the last year, and frequency of health care visits.

Information of age and years of retirement were recorded as continuous variables and sex was recorded as male or female. Marital status was indicated as follows:

- (1) Married
- (2) Single, never married
- (3) Separated
- (4) Divorced
- (5) Widowed

Respondents were requested to indicate the first language they learned as a child; the language spoken in their home by their parents. If other than English the participants were asked to name the language (Appendix B).

There were four categories of occupational status which were recorded as: working at a regular job outside the home for money (1), housewife (2), other (3), or retired (4).

Type of dwelling was recorded as: one-family house (1), owned (1) or rented (2); two-family house (2), owned (1) or rented (2); apartment (3); or rented room (4).

Household members were recorded as one of the following six categories: live alone (1), spouse (2), spouse and child (3), child (4), relatives (5), or non-relatives (6).

Income was recorded in four categories: less than \$5,000 (1); \$5,000 to \$9,999 (2); \$10,000 to \$14,999 (3); or \$15,000 or more (4).

Perceived health was indicated by a response of "yes" (1) or "no" (2) to the question "Do you feel you are

generally in good health?"

The motivational factors "presence of a regular physician" and "physical examination in the last year" were recorded as "yes" (1) or "no" (2). Frequency of health care visits were recorded as never (1); one time (2); two or three times (3); four or five times (4); or six or more times (6).

Major Study Variables

The 39 items measuring perceived health needs (including the sub-variables physical health needs, socioeconomic health needs, and psychological health needs) were scored using a modified five-point Likert scale. The stem at the top of the left-hand column of each page (AS I GROW OLDER I EXPECT TO EXPERIENCE:) was followed by the key:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

For each of the 39 health needs listed the respondent was asked to circle the number (1 2 3 4 5) which best described the extent to which they agreed or disagreed that they would expect to experience the problem. Use of the response "Undecided" is controversial among researchers (Polit & Hungler, 1978). Some researchers propose that inclusion of this response makes it easier for the individual who has no strong feelings about an item to complete

the questionnaire. Other researchers feel that inclusion of the neutral term encourages persons to not take sides. "Undecided" was included in the present study as in the researcher's opinion, some older adults might genuinely be undecided whether they would or would not experience a particular health need at some future point in time. Significant frequency of the "undecided" response to any one item or by any one individual or group of individuals might be an indication to health care personnel that a need might exist for health education and/or counseling about that issue or among that individual or group. A five-point scale was utilized to decrease the length of the questionnaire and to avoid possible confusion of the participants. A response indicating agreement (1 or 2) that the individual expected to experience a particular problem was considered evidence of a perceived health need for all but three items. A response indicating disagreement (4 or 5) with the statements "As I grow older I expect to experience positive feelings about myself; confidence in my ability to cope with most situations; and confidence I can do things as well as most others my age" were considered evidence of a perceived health need. Scoring for these three items only was reversed (Strongly Agree = 5; Agree = 4; Disagree = 2; Strongly Disagree = 1).

The 27 items measuring stated performance of health activities (including the sub-variables physical, socio-economic, and psychological activities) and the 66 items

measuring expected assistance from health care providers were scored in the same manner (1 = Strongly Agree; 5 = Strongly Disagree).

The response categories designed to identify the person most likely to help the individual older adult with a particular health need or health activity were physician (P), nurse (N), social worker (S), relative or friend (R), myself (M), other (O), or no one (NO). In the third column of each page of the instrument the participant was instructed to indicate by appropriate letter (P, N, S, R, M, O, NO) the person most likely to help in the blank space provided.

Procedures for Data Analysis

Both descriptive and inferential statistical techniques were utilized in the present study. The descriptive statistics computed included frequencies, percentages, means, modes, ranges, and standard deviations. Descriptive statistics are utilized to describe phenomena occurring naturally in the environment rather than to explain them. The inferential statistical procedures utilized in the present study were correlation and Chi-square.

A correlation is an index of the extent to which the variables are interrelated. Correlation does not prove causation. Correlation can be used to demonstrate functional but not causal relationships among variables. To infer causal relationships the researcher must be able to manipulate the independent variables (Borg & Gall, 1979; Polit &

Hungler, 1978). The present study was designed to identify and describe the degree and direction of the relationships among the perceived health needs and stated performance of health activities of older adults, and their expectations of assistance with specific health needs and health activities from health care providers.

Correlation is the most common method of describing the relationship between two variables. In the present study Pearson Product-Moment correlations and point biserial correlations (a type of product-moment correlation) were computed to determine the relationships between the major variables and among the sub-variables of the study. The modifying factors age, sex, native language, years of retirement, type of language, years of retirement, type of dwelling (owned or rented), household members, income, and perceived health were also correlated with each of the major study variables and each sub-variable. Correlations were also computed between the motivational factors (regular physical examination, and frequency of health care visits) and the study variables.

Correlation coefficients (r) range from -1.00 to 1.00. A minus (-) sign preceding the correlation coefficient indicates that as scores on one variable increase, scores on the other variable decrease (a negative correlation). When a minus sign is not present the relationship is positive indicating that when scores on one variable

increase the scores on the other variable also increase. The magnitude of the relationship is also indicated by the correlation coefficient. Correlations among the variables in the present study were interpreted as:

<u>Value of (r)</u>	<u>Strength of relationship</u>
0.00 to 0.20	No significant relationship
0.20 to 0.35	Very slight
0.35 to 0.65	Moderate to fair
0.65 to 0.85	Marked to fairly high
0.85 to 1.00	High to very high

(Borg & Gall, 1979,
pp. 513-514)

Correlation coefficients are also described as being statistically significant. In the present study the minimum level of significance which was acceptable was the .05 level. Any differences between the study variables that exceeded the significance level of .05 resulted in rejection of the null hypothesis. Utilizing the .05 level of significance the researcher accepted the risk that out of 100 samples a null hypothesis that was true would be rejected five times.

The Chi-square test is utilized to identify relationships when the research data are in the form of frequency counts and can be placed into discrete categories. Chi-square tests were conducted on data in the present study to determine whether there were relationships between marital or occupational status and the major study variables.

Summary

In Chapter IV an overview of the methodology and procedures utilized by the researcher to collect and analyze data in the present study was presented. The sample, the settings utilized for collection of data, the development and pretesting of the instrument, the actual data collection procedure and human rights protection, the scoring and the data analysis techniques were presented. In Chapter V, the data describing the subjects and the analysis of the research questions are presented.

CHAPTER V
DATA PRESENTATION AND ANALYSIS
Overview

The data presented in this chapter describe the study population, the perceived health needs and stated performance of health activities of older adults, and the extent of assistance expected with health needs and/or health activities from health care providers. Additional data are presented describing the type(s) of person(s) most likely to help with specific health needs and health activities. Data describing the relationships among the three major study variables (health needs, health activities, and expected assistance) and their sub-variables (physical, socioeconomic, and psychological scales) are also presented. Finally, data are presented describing the relationships among the study variables and the extraneous variables (modifying and motivational factors). A volunteer sample of 56 independent, English-speaking older adults aged 65 years and older who perceived themselves to be in good health comprised the study population.

In Chapter V a description of the findings of the study and data presentation for the following questions are included:

Research Question 1

What are the perceived health needs of older adults?

- a. What are the perceived physical health needs of older adults?
- b. What are the perceived socioeconomic health needs of older adults?
- c. What are the perceived psychological health needs of older adults?

Research Question 2

What health activities do older adults state they perform to maintain their health and overcome health problems?

- a. What health activities do older adults state they perform to maintain physical health?
- b. What health activities do older adults state they perform to maintain socioeconomic health?
- c. What health activities do older adults state they perform to maintain psychological health?

Research Question 3

What is the extent of assistance older adults expect to receive from health care providers to meet these health needs or perform these health activities?

Research Question 4

What is the relationship between perceived health needs of older adults and stated performance of health activities?

- a. What is the relationship between perceived physical health needs of older adults and stated performance of health activities to maintain physical health?
- b. What is the relationship between perceived socioeconomic health needs of older adults and stated performance of health activities to maintain socioeconomic health?
- c. What is the relationship between perceived psychological health needs of older adults and stated performance of health activities to maintain psychological health?

Research Question 5

What is the relationship between perceived health needs of older adults and the extent of assistance expected from health care providers?

- a. What is the relationship between physical health needs of older adults and the extent of assistance expected from health care providers?
- b. What is the relationship between socioeconomic health needs of older adults and the

extent of assistance expected from health care providers?

- c. What is the relationship between psychological health needs of older adults and the extent of assistance expected from health care providers?

Research Question 6

What is the relationship between stated performance of health activities of older adults and the extent of assistance expected from health care providers?

- a. What is the relationship between stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers?
- b. What is the relationship between stated performance of activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers?
- c. What is the relationship between stated performance of activities of older adults to maintain psychological health and the extent of assistance expected from health care providers?

Hypotheses

The following hypotheses were developed for Research Questions 4, 5, and 6:

1. There is a positive relationship between perceived total health needs and stated performance of health activities of older adults.
 - 1a. There is a positive relationship between perceived physical health needs of older adults and their stated performance of health activities to maintain physical health.
 - 1b. There is a positive relationship between perceived socioeconomic health needs of older adults and their stated performance of health activities to maintain socio-economic health.
 - 1c. There is a positive relationship between perceived psychological health needs of older adults and their stated performance of health activities to maintain psychological health.
2. There is a positive relationship between perceived health needs and the extent of assistance expected from health care providers.
 - 2a. There is a positive relationship between perceived physical health needs of older

adults and the extent of assistance expected from health care providers.

2b. There is a relationship between perceived socioeconomic health needs of older adults and the extent of assistance expected from health care providers.

2c. There is a relationship between perceived psychological health needs of older adults and the extent of assistance expected from health care providers.

3. There is a negative relationship between the stated performance of health activities of older adults and the extent of assistance expected from health care providers.

3a. There is a negative relationship between the stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers.

3b. There is a negative relationship between the stated performance of health activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers.

3c. There is a negative relationship between the stated performance of health

activities of older adults to maintain psychological health and the extent of assistance expected from health care providers.

Descriptive Findings of the Study Sample

The study sample consisted of 56 independent, English-speaking adults, aged 65 and older, who perceived themselves to be in good health. The sample population was obtained from four high-rise, low-income, subsidized housing complexes for older adults and from the Health Education Department of a local hospital.

Modifying Factors

As outlined in the conceptual model presented in Chapter II, several factors may modify individual health perceptions. In the present study the modifying factors which might influence the health perceptions of older adults were categorized into 3 groups: demographic, sociopsychological, and structural. Data were collected on variables within each group and were utilized to describe the study sample.

Demographic Variables

The demographic variables utilized in the present study were age and sex.

Age. The age of the study participants ranged from 65 to 89. The mean age was 72.5 years. The age distribution and percentages can be seen in Table 1.

Table 1. Age (n=55)

Age	Number of Participants	Percentage
65-70	27	49.1
71-75	11	20.0
76-80	11	20.0
81-89	6	10.9
TOTAL	55	100.0

Sex. Both males and females participated in the study. The distribution and percentage of males and females may be seen in Table 2.

Table 2. Sex (n=56)

Sex	Number of Participants	Percentage
Males	12	21.4
Females	44	78.6
TOTAL	56	100.0

Sociopsychological Variables

The sociopsychological variables measured in the present study were marital status, occupational status, years of retirement, type of dwelling (owned or rented), household members, and income.

Marital Status. The marital status was obtained from each participant in the study. The distribution and percent of older adults by marital status can be seen in Table 3. The majority of older adults in the study were widowed (n=31; 55.4%).

Table 3. Marital Status (n=56)

Marital Status	Number of Participants	Percentage
Married	15	26.8
Single, Never married	4	7.1
Separated	1	1.8
Divorced	5	8.9
Widowed	31	55.4
TOTAL	56	100.0

Occupational Status. The occupational status was obtained from each participant in the study. The distribution and percent of older adults according to occupational status can be seen in Table 4. The majority of participants in the study were retired (n=46; 82.1%).

Table 4. Occupational Status (n=56)

Occupational Status	Number of Participants	Percentage
Working outside the home for money	1	1.8
Housewife	9	16.1
Retired	46	82.1
TOTAL	56	100.0

Years of Retirement. The number of years of retirement was ascertained for each participant. The number of years ranged from 3 to 25 years. The mean number of years of retirement was 8.53. The distribution for years of retirement and distribution may be seen in Table 5.

Table 5. Years of Retirement (n=45)

Years of Retirement	Number of Participants	Percentage
-5	14	31.3
6-10	18	40.1
11-15	6	13.2
16-20	5	11.0
21-25	2	4.4
TOTAL	<u>45</u>	<u>100.0</u>

Type of Dwelling. The type of dwelling and whether the dwelling was owned or rented was determined for each of the participants in the study. The majority of older adults in the study resided in an apartment (n=56; 82.1%) and rented their home (n=46; 83.6%). The distribution and percent of persons according to type of dwelling and whether the dwelling was owned or rented can be seen in Tables 6 and 7.

Table 6. Type of Dwelling (n=56)

Type of Dwelling	Number of Participants	Percentage
One family	10	17.9
Apartment	46	82.1
TOTAL	<u>56</u>	<u>100.0</u>

Table 7. Owned or Rented Dwelling (n=55)

Owned or Rented	Number of Participants	Percentage
Owned	9	16.4
Rented	46	83.6
TOTAL	55	100.0

Household Members. Data to identify the presence of other persons in the household was obtained from each participant. The majority of participants lived alone (n=38; 69.1%). The distribution and percent of participants according to household members can be seen in Table 8.

Table 8. Household Members (n=55)

Household Members	Number of Participants	Percentage
Live Alone	38	69.1
Spouse	16	29.1
Child (or children)	1	1.8
TOTAL	55	100.0

Income. The mean total annual income for the participants in the study was between \$5,000 and \$9,000 with the mode below \$5,000. The frequency distribution of level of income can be seen in Table 9.

Table 9. Income (n=48)

Income	Number of Participants	Percentage
Below \$5,000	20	41.7
\$5,000 - \$9,999	13	27.1
\$10,000 - \$14,999	6	12.5
\$15,000+	9	18.8
TOTAL	48	100.0

Structural Variables

In the conceptual model (Chapter II) structural variables relevant to the present study were perceived health, and the ability to read and understand the English language.

Perceived Good Health. All participants answered "Yes" to the question "Do you feel you are generally in good health?."

Native Language. Each participant was asked to identify the language spoken in their home when they were a child. The majority of the participants identified "English" as that language (n=51; 92.7%). Only 4 participants of the 55 who responded to the question identified another language (n=4; 7.3%).

Motivational Factors

As represented in the research model (Chapter II), contact with health care providers may motivate persons to perform preventive health activities. Motivational factors

measured in the present study were presence of a regular doctor, recent physical exam, and frequency of health care visits in the past 12 months.

Regular Doctor. The majority of the participants responded "Yes" to the question "Do you have a regular doctor you try to see first if you get sick?" (n=51; 94.4%). Only 3 of the 54 respondents indicated "No" to that question (5.6%).

Physical Checkup. Each participant was asked "Have you had a physical checkup within the last year?" The frequency of the "Yes" response was 77.4% (n=41). "No" was indicated by 12 subjects (22.6%). There was a total of 53 subjects that responded to the item "Physical Checkup."

Health Care Visits. Each participant was asked to identify how many times they had been to a doctor or health clinic within the previous 12 months. The frequency distribution for health care visits can be seen in Table 10.

Table 10. Health Care Visits Within Past Year (n=54)

Health Care Visits	Number of Participants	Percentage
Never	8	14.8
One time	7	13.0
2-3 times	15	27.8
4-5 times	12	22.2
6+ times	12	22.2
TOTAL	54	100.0

Summary

The descriptive findings of the study population were presented in the previous section. The specific descriptors of the sample were presented in the following manner, according to the conceptual model outlined in Chapter II.

1. Modifying Factors

- a. Demographic variables: age and sex;
- b. Sociopsychological variables: marital status, occupational status, years of retirement, type of dwelling (owned or rented), household members, income;
- c. Structural Variables: perceived good health, native language;

2. Motivational Factors: regular doctor, physical checkup, health care visits.

Descriptive data for perceived health needs are presented in the following section.

Data Presentation for Research Questions and Hypotheses

In this section each research question will be presented with its associated data as well as an explanation of the statistical analysis utilized.

Research Question 1

What are the perceived health needs of older adults?

- a. What are the perceived physical health

- needs of older adults?
- b. What are the perceived socioeconomic health needs of older adults?
 - c. What are the perceived psychological health needs of older adults?

Perceived Health Needs of Older Adults

Statistical technique for obtaining perceived health needs. In order to obtain descriptive information regarding perceived health needs of older adults frequency distributions were calculated for perceived health needs (total), physical health needs, socioeconomic health needs, and psychological health needs. For descriptive purposes the responses "Strongly Agree" and "Agree" were collapsed into one "Agree" category. Data are presented as percentages of the total respondents to each item along with the number of participants responding to each item.

Results of perceived health needs (total). The perceived health needs that at least 50% of the older adult subjects expected to experience are presented in Table 11 in descending order. The total frequency distribution is presented in Appendix F, Table 1-F. More of the participants expected to experience pain and stiffness of joints than any other health need followed by changes in work activities, vision changes, need to reminisce, increased difficulty doing household tasks, and increased need for family closeness. Less than 10% of the participants expected to experience

Table 11. Perceived Total Health Needs of Older Adults and N

Health Needs	Total N	Number of Participants Agreeing to Statement	Percent- age
Pain and Stiff- ness of Joints	55	45	81.8
Change in Work Activities	53	42	79.2
Visual Changes	52	41	78.8
Need to Reminisce	47	35	74.5
Difficulty Doing Household Tasks	55	39	70.9
Increased Need for Family Closeness	50	35	70.0
Daytime Tiredness	53	37	69.8
Change in Social Activities	52	36	69.2
Denture Problems	50	34	68.0
Change in Daily Routines	50	34	68.0
Increasing Deafness	55	33	60.0
Cold hands and/or feet	54	32	59.3
Shortness of Breath	56	33	58.9
Forgetfulness	52	30	57.7
Change in Sexual Relations	45	23	51.1

difficulty affording housing, coping, negative feelings, and lack of confidence in ability to do things as well as others their own age.

Results of physical health needs. The perceived physical health needs of older adults are presented in Table 12. More than 50% of the participants expected to

experience pain and stiffness of joints, visual changes, daytime tiredness, denture problems, increasing deafness, cold hands and/or feet, and shortness of breath.

Table 12. Perceived Physical Health Needs (in decending order)

Physical Needs	Number of Participants Responding to Item	Number of Participants Agreeing with Statement	Percent- age
Pain and Stiffness of Joints	55	45	81.8
Visual Changes	52	41	78.8
Daytime Tiredness	53	37	69.8
Denture Problems	50	34	68.0
Increasing Deafness	55	33	60.0
Cold hand and/or feet	54	32	59.3
Shortness of Breath	56	33	58.9
Change in Diet	51	24	47.1
Frequency of Urination	52	24	46.2
Swelling of hands and/ or feet	52	22	42.3
Numbness of hands and/ or feet	52	21	40.4
Loss of Balance	52	21	40.4
Difficulty Sleeping	51	20	39.2
Difficulty Chewing	51	18	35.3
Incontinence	52	14	26.9

Results of socioeconomic health needs. The frequency and percentages of agreement for the six items measuring perceived socioeconomic health needs are presented in Table 13. Less than 30% of the participants expected to experience any of the socioeconomic health needs.

Table 13. Perceived Socioeconomic Health Needs (in descending order)

Socioeconomic Health Needs	Number of Participants Responding to Item	Number of Participants Agreeing with Statement	Percentage
Difficulty Paying for Health Care	53	15	28.3
Difficulty Paying for Social Activities	52	11	21.2
Difficulty Paying for Utilities	52	9	17.3
Difficulty Paying for Clothing	51	8	15.7
Difficulty Paying for Food	51	7	13.7
Difficulty Paying for Housing	51	5	9.8

Results of perceived psychological health needs. The perceived psychological health needs of older adults are presented in Table 14. More than 50% of the participants expected to experience a change in work activity (79.2%), a desire to reminisce (74.5%), difficulty with household tasks (70.9%), a need for family closeness (70.0%), a change in social activity (69.2%), and a change in daily routines (68.0%). Less than 10% of the participants expected to experience difficulty coping, negative feelings, and lack of confidence in their ability to do things as well as others their own age.

Research Question 2

What health activities do older adults state they perform to maintain their health and overcome health

Table 14. Perceived Psychological Health Needs (in descending order)

Psychological Health Needs	Number of Participants Responding to Item	Number of Participants Agreeing with Statement	Percentage
Change in Work Activity	53	42	79.2
Desire to Reminisce	47	35	74.5
Difficulty with Household Tasks	55	39	70.9
Need for Family Closeness	50	35	70.0
Change in Social Activity	52	36	69.2
Change in Daily Routines	50	34	68.0
Forgetfulness	52	30	57.7
Change in Sexual Relations	45	23	51.1
Decreased Ability to Learn	51	18	35.3
Difficulty Following Medication Schedule	51	12	23.5
Difficulty Problem-Solving	52	10	19.2
Difficulty Decision-Making	52	9	17.3
Uselessness	50	8	16.0
Difficulty Coping	51	4	7.9
No Positive Feelings	51	3	5.9
Lack of Confidence in Ability to Perform	54	3	5.6

problems?

- a. What health activities do older adults state they perform to maintain physical health?
- b. What health activities do older adults state they perform to maintain socioeconomic health?
- c. What health activities do older adults state they perform to maintain psychological health?

Stated Performance of Health Activities by Older Adults

Statistical technique for obtaining performance of health activities. In order to obtain descriptive information regarding stated performance of health activities by older adults frequency distributions were calculated for perceived health needs (total), activities to maintain physical health, activities to maintain socioeconomic health, and activities to maintain psychological health. For descriptive purposes the responses "Strongly Agree" and "Agree" were combined into one "Agree" category. Data are presented as percentages of the total respondents to each item and the number of participants who agreed with the statement.

Results of stated performance of health activities (total). The stated performance of health activities (total) are presented in Table 15. More than 50% of the respondents stated they performed each of the health activities.

Results of stated performance of physical health activities. The stated performance of activities to maintain physical health are presented in Table 16. Over 75% of the respondents reported performance of all but three health activities (resting during daytime (73.6%), drinking 6-8 glasses of fluid a day (69.2%), and obtaining adequate sleep (63.6%).

Table 15. Stated Performance of Health Activities (Total)

Health Activity	Total N	Number in Agreement with Statement	Percentage
Social Activity	53	53	100.0
Finding Ways to be Useful	52	52	98.1
Contact with Relatives	55	53	96.4
Share Memories	50	48	96.0
Weight Control	53	50	94.3
Know Medication Purpose	53	50	94.3
Use Medicare	52	48	92.3
Care About Appearance	55	50	90.9
Eat Fresh Fruits and Vegetables	55	50	90.9
Seek Illness Care	53	47	88.7
Limit Alcohol and Caffeine	51	45	88.2
Annual Physical Exam	52	45	86.5
Hobby	51	44	86.3
Daily Exercise	52	44	84.6
Annual Dental Exam	50	42	84.0
Share Intimate Activities	53	44	83.0
Know Medication Effects	51	42	82.4
Do not Smoke	50	39	78.0
Seek Advice	52	40	76.9
Stress Management	51	39	76.5
Educational Programs	52	39	75.0
Would Use Medicaid	48	36	75.0
Daytime Rest	53	29	73.6
Adequate Fluid Intake	52	36	69.2
Nutrition Program	52	35	67.3
Adequate Sleep	55	35	63.6
Free Health Screening	51	31	60.8

Table 16. Performance of Activities to Maintain Physical Function

Activity	N	Number of Subjects in Agreement	Percent- age
Weight Control	53	50	94.3
Know Purpose of Medications	53	50	94.3
Consume Fresh Fruits and Vegetables	55	50	90.9
Seek Care for Illness	53	47	88.7
Limit Alcohol and Caffeine	51	45	88.2
Annual Physical Exam	52	45	86.5
Daily Exercise	52	44	84.6
Annual Dental Exam	50	42	84.0
Know if Medication is Working	51	42	82.4
Do not Smoke	50	39	78.0
Rest During Daytime	53	29	73.6
Drink Adequate Fluids	52	36	69.2
Adequate Sleep	55	35	63.6

Results of stated performance of socioeconomic health activities. Data are presented in Table 17 describing stated performance of activities to maintain socioeconomic health. For each of the four items more than 50% of the participants stated they performed the health activity.

Table 17. Stated Performance of Activities to Maintain Socioeconomic Health

Health Activity	Total N	Agree N	Percentage
Use Medicare	52	48	92.3
Would Use Medicaid	48	36	75.0
Use Nutrition Program	52	35	67.3
Use Free Health Screening	51	31	60.8

Results of stated performance of psychological health activities. The stated performance of activities to maintain psychological health are presented in Table 18. More than 50% of the participants responding to each item agreed they performed the activity. All 100% of the participants agreed they regularly enjoyed social activities with friends and/or relatives.

Table 18. Stated Performance of Activities to Maintain Psychological Health

Health Activity	Total N	Agree N	Percentage
Social Activity	53	53	100.0
Find ways to be Useful	53	52	98.1
Contact with Relatives	55	53	96.4
Share Memories	50	48	96.0
Care about Appearance	55	50	90.9
Have Hobby	51	44	86.3
Share Intimate Activities	53	44	83.0
Seek Advice	52	40	76.9
Stress Management	51	39	76.5
Educational Programs	52	39	75.0

Comparison of Perceived Health Needs and Stated Performance of Health Activities. For descriptive purposes, data is presented in Appendix F, Table 2-F displaying percentages of agreement with perceived health needs and stated performance of health activities in each of the three areas: physical, socioeconomic, and psychological.

Research Question 3

What is the extent of assistance older adults expect to receive from health care providers to meet these health needs or perform these health activities?

Expected Assistance from Health Care Providers

Statistical technique for obtaining expected assistance. Descriptive information regarding expected assistance from health care providers was obtained by calculating frequency distributions for expected assistance with health needs and expected assistance with health activities. For descriptive purposes data are reported as percentages of the total respondents to an item.

Results of expected assistance with health needs from health care providers. The extent of assistance expected by older adults with health needs is presented in Table 19. More than 50% of the participants expected to receive assistance from health care providers for denture problems, visual changes, pain and stiffness of joints, and increased deafness. Less than 10% of the participants expected to receive assistance from health care providers with difficulty paying for housing, clothing, and social activities, decision-making, and feelings of uselessness.

Results of expected assistance with health activities from health care providers. Data are presented in Table 20 ranking percentages of participants expecting to receive

Table 19. Health Needs Assistance Expected from Health Care Providers

HEALTH NEEDS ASSISTANCE EXPECTED FROM HEALTH CARE PROVIDERS (percentage in descending order)			Percentage	N
Denture Problems			73.3	33
Visual Changes			68.1	32
Pain and Stiffness of Joints			61.2	30
Increasing Deafness			55.1	27
Swelling of Hands and/or Feet			43.5	20
Shortness of Breath			42.6	20
Loss of Balance			39.1	18
Medication Regime			38.3	18
Difficulty Chewing			34.1	15
Change in Diet			33.3	16
Difficulty Doing Things			31.8	14
Numbness of Hands and/or Feet			30.4	14
Daytime Tiredness			28.3	13
Incontinence			27.7	13
Change Work Activities			26.1	12
Difficulty with Household Tasks			22.4	11
Change in Social Activities			21.7	10
Frequency of Urination			21.3	10
Cold Hands and/or Feet			20.4	10
Constipation			20.0	9
Negative Feelings			19.6	9
Coping Ability			18.2	8
Forgetfulness			18.2	8
Family Closeness			17.8	8
Decreased Ability to Smell			17.4	8
Difficulty in Sleeping			16.7	7
Change in Daily Routines			15.6	7
Paying for Health Care			14.3	7
Paying for Utilities			12.5	6
Change in Sexual Relations			12.2	5
Reminiscence			11.6	5
Paying for Food			11.4	5
Learning Ability			11.1	5
Difficulty Problem-Solving			11.1	5
Paying for Housing			9.5	4
Paying for Clothing			6.8	3
Decision-Making			6.7	3
Uselessness			4.3	2
Change in Social Activities			4.3	2

assistance with performance of health activities from health care providers. More than 50% of the participants expected

to receive assistance from health care providers with knowledge of medication purpose and effect, illness care, dental exam, and annual physical examination.

Table 20. Health Activity Assistance Expected from Health Care Providers

HEALTH ACTIVITY ASSISTANCE EXPECTED FROM HEALTH CARE PROVIDERS (percentage in descending order)	Percentage	N
Know Medicine Effect	76.7	33
Illness Care	76.1	35
Know Medicine Purpose	76.1	35
Annual Dental Exam	71.7	33
Annual Physical Exam	71.1	32
Using Medicare	59.1	26
Using Medicaid	53.3	24
Health Screening	48.9	22
Weight Control	47.8	22
Nutrition Program	41.3	19
Ways to be Useful	27.9	12
Stress Management	26.8	11
Education Programs	25.6	11
Regular Social Activities	25.6	11
Limit Alcohol and Caffeine	25.6	11
Seek Advice	23.8	10
Daily Exercise	23.4	11
Intake of Fruit and Vegetables	22.2	10
Hobby	18.6	8
Contact with Relatives	18.2	8
Daytime Rest	17.8	8
Sleep	17.8	8
Sharing Memories	17.5	7
Smoking	17.1	7
Fluid Intake	16.7	7
Sharing Intimate Activities	16.3	7
Care about Appearance	15.9	7

Persons Most Likely to Help. Data are presented in Appendix F, Table 3-F (in descending order) which describe the person(s) most likely to help with specific health needs. For example: 95.7% of the participants listed the physician as the person most likely to help with visual changes should

they occur.

Data are presented in Appendix F, Table 4-F (in descending order), which describe the person(s) most likely to help with specific health activities. For example: 84.8% of the participants expected the physician would be most likely to help them when they sought care for illness.

In Appendix F, Table 5-F, data are presented in descending order which list the specific health needs and health activities for which the listed percentages of older adults expected no one to help.

In summary, data was presented in this section of Chapter V describing the study sample, the perceived health needs, the stated performance of health activities, the assistance expected from health care providers with health needs and/or health activities, and the types of persons most likely to help with specific health needs and health activities.

In the next section of Chapter V data will be presented describing the relationships among the three major study variables (health needs, health activities, and expected assistance), and their sub-variables (physical, socioeconomic, and psychological). This data will be preceded by a presentation of the reliability coefficients of each of the scales.

Reliability of the Instrument

The reliability of the instrument was measured through the computation of the coefficient alpha. Coefficient alpha was computed individually for each of the scales: perceived health needs (total), stated performance of health activities (total), and expected assistance from health care providers. Coefficient alpha was also computed on each of the sub-scales; physical, socioeconomic, and psychological needs and activities.

The reliability coefficient for perceived health needs (total) was .91. This alpha coefficient represented a high internal consistency among the items of perceived health needs. Four items were deleted from the total health needs scale to obtain the reliability coefficient (Appendix B, items 2, 32, 33, and 34).

The reliability coefficient for perceived physical health needs was .86 which represented a high internal consistency among the items of perceived physical health needs. One item (item 2) was deleted from the physical health needs scale to obtain the alpha coefficient (Appendix B).

The reliability coefficient for perceived socioeconomic health needs was .94 which represented a high internal consistency among the items of perceived socioeconomic health needs. There were no items deleted from the socioeconomic health needs scale.

The alpha coefficient for perceived psychological health needs was .86. This reliability coefficient represented a high internal consistency for items in the psychological health needs scale. Three items were deleted from the psychological health needs scale to obtain the reliability coefficient (Appendix B, items 32, 33, and 34).

The reliability coefficient for stated performance of health activities (total) was .83 which represented a high internal consistency among the items of the scale. Six items were deleted from the total health activities scale to obtain the alpha coefficient (Appendix B, items 2, 4, 5, 14, 18, and 22).

The alpha coefficient for stated performance of activities to maintain physical health was .78 which represented a moderate internal consistency among the items of the physical health activities scale. Three items were deleted from the scale to obtain the reliability coefficient for physical health activities (Appendix B, items 2, 4, and 5).

The reliability coefficient for stated performance of activities to maintain socioeconomic health was .57. This alpha coefficient represented a fair to moderate internal consistency among the items of the socioeconomic health activities scale. One item was deleted from the scale to obtain the reliability coefficient (Appendix B, item 18).

The alpha coefficient for stated performance of activities to maintain psychological function was .72 which represented a moderate internal consistency among the items of the scale. Two items were deleted from the scale to obtain the reliability coefficient for psychological health activities (Appendix B, items 14 and 22).

The reliability coefficient for expected assistance from health care providers with health needs was .96. This alpha coefficient represented a very high internal consistency among the items of the health needs assistance scale. There were no items deleted from the scale in order to obtain this alpha coefficient.

The reliability coefficient for expected assistance from health care providers with health activities was .96 which represented a very high internal consistency among the items of the scale. No items were deleted from the scale to obtain the alpha coefficient.

In summary, the reliability coefficients computed for the various scales of the instrument using the coefficient alpha method were:

Perceived Health Needs (Total)	.91
Perceived Physical Health Needs	.86
Perceived Socioeconomic Health Needs	.94
Perceived Psychological Health Needs	.86
Performance of Health Activities (Total)	.83
Physical Health Activities	.78
Socioeconomic Health Activities	.57
Psychological Health Activities	.72
Expected Assistance with Health Needs	.96
Expected Assistance with Health Activities	.96

In the next section of Chapter V data will be presented describing the relationships among the variables and sub-variables of the study.

Relationships Among the Study Variables

Statistical technique for obtaining correlations among study variables. The Pearson Product Moment correlational technique was utilized to calculate the degree and direction of the relationships among all of the variables and sub-variables of the study. The complete correlation matrix is presented at the conclusion of this section in Table 21.

Research Question 4

What is the relationship between perceived health needs of older adults and stated performance of health activities?

Hypothesis 1: There is a positive relationship between perceived total health needs and stated performance of health activities of older adults.

The correlation (r) between perceived total health needs of older adults and stated performance of health activities (total) was $-.1239$ with a significance level (P) of $.184$. The null hypothesis was not rejected. There was no significant relationship between perceived total health needs of older adults and stated performance of health activities.

Research Question 4a

What is the relationship between perceived physical health needs of older adults and stated performance of health activities to maintain physical health?

Hypothesis 1a: There is a positive relationship between perceived physical health needs of older adults and their stated performance of health activities to maintain physical health.

The correlation between perceived physical health needs of older adults and their stated performance of health activities to maintain physical health was $-.0738$ ($P=.296$). The null hypothesis was not rejected. There was no significant relationship between perceived physical needs and performance of health activities to maintain physical health.

Research Question 4b

What is the relationship between perceived socioeconomic health needs of older adults and stated performance of health activities to maintain socioeconomic health?

Hypothesis 1b: There is a positive relationship between perceived socioeconomic health needs of older adults and their stated performance of health activities to maintain socioeconomic health.

The correlation between perceived socioeconomic health needs and performance of socioeconomic health activities was $r = .910$ ($P=.088$). There was no significant relationship between socioeconomic health needs of older adults

and performance of socioeconomic health activities. The null hypothesis was not rejected.

Research Question 4c

What is the relationship between perceived psychological health needs of older adults and stated performance of health activities to maintain psychological health?

Hypothesis 1c: There is a positive relationship between perceived psychological health needs of older adults and their stated performance of health activities to maintain psychological health.

The correlation between perceived psychological health needs of older adults and their stated performance of psychological health activities was $r=.0186$ ($P=.447$). The null hypothesis was not rejected. There was no significant relationship between perceived psychological health needs and psychological health activities.

Research Question 5

What is the relationship between perceived health needs of older adults and the extent of assistance expected from health care providers?

Hypothesis 2: There is a positive relationship between perceived health needs (total) and the extent of assistance expected from health care providers.

The correlation between perceived total health needs and expected assistance from health care providers was $r=.6028$ at a significance level of .001. The null hypothesis was rejected. There was a moderate to strong positive relationship between perceived total health needs and the extent of assistance expected from health care providers.

Research Question 5a

What is the relationship between physical health needs of older adults and the extent of assistance expected from health care providers?

Hypothesis 2a: There is a positive relationship between perceived physical health needs of older adults and the extent of assistance expected from health care providers.

There was a correlation of $r=.4744$ ($P=.001$) between perceived physical health needs and expected assistance from health care providers. There was a significant positive relationship between physical health needs and expected assistance from health care providers. The null hypothesis was rejected.

Research Question 5b

What is the relationship between socioeconomic health needs of older adults and the extent of assistance expected from health care providers?

Hypothesis 2b: There is a relationship between perceived socioeconomic health needs of older adults and the extent of assistance expected from health care providers.

There was a correlation of $r=.3022$ ($P=.016$) between perceived socioeconomic health needs of older adults and expected assistance from health care providers. The null hypothesis was rejected. There was a slight positive relationship between perceived socioeconomic health needs of older adults and the extent of assistance expected from health care providers.

Research Question 5c

What is the relationship between psychological health needs of older adults and the extent of assistance expected from health care providers?

Phypothesis 2c: There is a relationship between perceived psychological health needs of older adults and the extent of assistance expected from health care providers.

The correlation between psychological health needs and expected assistance was $r=.5768$ ($P=.001$). There was a moderate positive relationship between perceived psychological health needs and the extent of assistance expected from health care providers. The null hypothesis was rejected.

Research Question 6

What is the relationship between stated performance of health activities of older adults and the extent of assistance expected from health care providers?

Hypothesis 3: There is a negative relationship between the stated performance of health activities of older adults and the extent of assistance expected from health care providers.

There was a correlation of $r=.1506$ ($P=.146$) between performance of health activities (total) of older adults and the extent of assistance expected from health care providers. The null hypothesis was not rejected. There was no significant relationship between stated performance of total health activities of older adults and the extent of assistance expected from health care providers.

Research Question 6a

What is the relationship between stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers?

Hypothesis 3a: There is a negative relationship between the stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers.

The correlation between these two variables was $r=.2812$ ($P=.023$). The null hypothesis was rejected. There

was a very slight positive relationship between the stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers.

Research Question 6b

What is the relationship between stated performance of activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers?

Hypothesis 3b: There is a negative relationship between the stated performance of health activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers.

There was a correlation of $r=.2179$ ($P=.062$) between socioeconomic activities and the extent of assistance expected from health care providers. There was no significant relationship between these two variables. The null hypothesis was not rejected.

Research Question 6c

What is the relationship between stated performance of activities of older adults to maintain psychological health and the extent of assistance expected from health care providers?

Hypothesis 3c: There is a negative relationship between the stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected from health care providers.

The correlation between these two variables was $r=.0571$ ($P=.345$). The null hypothesis was not rejected. There was no significant relationship between the stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected from health care providers.

In summary, the relationships among the study variables were identified and presented in this section. Hypotheses 1, 1a, 1b, 1c, 3, 3b, and 3c were rejected indicating that there were no significant relationships between hypotheses:

1. Perceived health needs (total) and stated performance of health activities.
- 1a. Perceived physical health needs and performance of health activities to maintain physical health.
- 1b. Perceived socioeconomic health needs and stated performance of activities to maintain socioeconomic health.
- 1c. Perceived psychological health needs and stated performance of health activities to maintain psychological health.
3. Stated performance of health activities of older adults and the extent of assistance expected from health care providers.
- 3b. Stated performance of health activities of older adults to maintain socioeconomic health and the extent and assistance expected from health care providers.

- 3c. Stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected from health care providers.

Hypotheses 2, 2a, 2b, 2c, and 3a were accepted.

There were significant relationships between hypothesis:

2. Perceived health needs (total) and the extent of assistance expected from health care providers ($r = .6028$, $P = .001$).
- 2a. Perceived physical health needs of older adults and the extent of assistance expected from health care providers ($r = .4744$, $P = .001$).
- 2b. Perceived socioeconomic health needs of older adults and the extent of assistance expected from health care providers ($r = .3022$, $P = .016$).
- 2c. Perceived psychological health needs of older adults and the extent of assistance expected from health care providers ($r = .5768$, $P = .001$).
- 3a. Stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers ($r = .2812$, $P = .023$).

The relationships among the extraneous variables (modifying and motivational factors) and the study variables will be presented in the next section.

Table 21. Correlation Matrix: Relationships Among Study Variables

	Total Physical Needs	Physical Needs	Socio- economic Needs	Psycho- logical Needs	Total Activities	Physical Activity	Socio- economic Activity	Psycho- logical Activity	Needs Assist- ance	Activity Assist- ance
Health Needs (total)	---									
Physical Health Needs	.87***	---								
Socioeconomic Health Needs	.60***	.25*	---							
Psychological Health Needs	.82***	.54***	.36**	---						
Health Activities (total)	-.12	-.21	-.08	-.04	---					
Physical Health Activities	-.05	-.07	-.17	.03	.86***	---				
Socioeconomic Health Activities	.47***	.49***	.19	.35**	-.43***	-.18	---			
Psychological Health Activities	-.02	-.14	.07	.02	.78***	.47***	-.15	---		
Health Needs Assistance	.60***	.47***	.30*	.58***	.16	.31**	.31**	.05	---	
Health Activities Assistance	.45***	.41***	.04	.41***	.15	.28*	.22	.06	.85***	---

* = significant at the .05 level

** = significant at the .01 level

*** = significant at the .001 level

EXTRANEOUS VARIABLES: MODIFYING AND MOTIVATIONAL FACTORS

The degree and direction of the relationships among all of the extraneous variables and the major study variables were calculated by means of Pearson Product-Moment correlation (including point bi-serial correlation when the data were in the form of discrete categories rather than continuous scores) and Chi-square. The total correlation matrix may be seen in Table 22.

Results of Correlations Between Modifying Factors and Study Variables

Age. There were significant negative relationships between age and: total health needs ($r = -.3740$, $p = .002$); physical health needs ($r = -.3802$, $p = .002$); psychological health needs ($r = -.3037$, $p = .013$); socioeconomic health activities ($r = -.3143$, $p = .014$); health needs assistance ($r = -.3435$, $p = .006$); and health activities assistance ($r = -.3009$, $p = .017$). All of these correlations were slight to moderate. There were no significant relationships between age and socioeconomic health needs, total health activities, physical health activities and psychological health activities.

Sex. There were no significant relationships between sex and any of the study variables.

Marital Status. There were no significant relationships between marital status and any of the study variables.

Occupational Status. There were no significant relationships between occupational status and any of the study

Table 22. Correlation Matrix: Modifying and Motivational Factors with Study Variables
(Pearson Product-Moment)

	Age	Sex	Length of Retire- ment	Type of Dwelling	Own or Rent	House- hold Members	Income	Regular Doctor	Physical Exam- ination	Number of Health Care Visits
Health Needs (total)	-.37**	-.06	-.09	-.22*	-.25*	-.25*	.31*	.27*	.20	-.19
Physical Health Needs	-.38**	-.10	-.10	-.25*	-.24*	-.16	.33**	.28*	.12	-.17
Socioeconomic Health Needs	-.02	.05	.01	-.15	-.17	-.32**	.27*	-.06	.13	-.07
Psychological Health Needs	-.30**	.01	.02	-.10	-.16	-.22	.09	.32**	.24*	-.19
Health Activities (total)	.09	-.19	.38**	.36**	.35**	-.25*	-.60***	.18	.36**	.00
Physical Health Activities	.02	-.18	.30*	.29*	.27*	-.14	-.50***	.22	.42***	-.03
Socioeconomic Health Activities	-.31**	.03	-.26*	-.48***	-.49***	-.20	.55***	.01	.00	-.30**
Psychological Health Activities	.04	-.14	.27*	.16	.15	-.29*	-.29*	.10	.22	-.14
Health Needs Assistance	-.34**	-.07	-.05	.00	-.04	-.26*	-.02	.19	.19	-.29*
Health Activities Assistance	-.30*	-.03	-.13	.00	-.02	-.05	-.14	.09	.16	-.23

* = significant at the .05 level

** = significant at the .01 level

*** = significant at the .001 level

variables.

Length of Retirement. There was a moderate positive relationship between length of retirement and stated performance of health activities (total) ($r=.3832$, $P=.005$). There were slight positive relationships between length of retirement and stated performance of activities to maintain physical health ($r=.2971$, $P=.025$) and stated performance of activities to maintain psychological health ($r=.2705$, $P=.038$). There was a slight negative relationship between length of retirement and stated performance of activities to maintain socioeconomic health ($r=-.2557$, $P=.047$).

Type of Dwelling. There were very slight negative relationships between type of dwelling and total health needs ($r=-.2192$, $P=.052$) and perceived physical health needs ($r=-.2472$, $P=.033$). There was a slight positive relationship between type of dwelling and stated performance of activities to maintain physical health ($r=.2878$, $P=.017$). There was a moderate positive relationship between type of dwelling and stated performance of health activities (total) ($r=.3594$, $P=.004$). There was a moderate negative relationship between type of dwelling and stated performance of activities to maintain socioeconomic health ($r=-.4834$, $P=.001$).

Own or Rent. There were slight negative relationships between own or rent of dwelling and total health needs ($r=-.2469$, $P=.035$) and perceived physical needs ($r=-.2447$, $P=.036$). There was a slight positive relationship between own or rent of dwelling and stated performance of activities

to maintain physical health ($r=.2686$, $P=.025$). There was a moderate positive relationship between own or rent of dwelling and stated performance to total health activities ($r=.3594$, $P=.004$). There was a moderate negative relationship between own or rent of dwelling and performance of socioeconomic health activities ($r=-.4917$, $P=.001$).

Household Members. The variable "household members" was significantly related to total health needs ($r=-.2530$, $P=.030$); perceived socioeconomic health need ($r=-.3163$, $P=.011$); total health activities ($r=-.2504$, $P=.033$); activities to maintain psychological health ($r=-.2866$, $P=.017$); and health needs assistance ($r=-.2552$, $P=.033$).

Income. There were significant positive relationships between income and total perceived health needs ($r=.3084$, $P=.016$); perceived physical health needs ($r=.3250$, $P=.012$); perceived socioeconomic health needs ($r=.2690$, $P=.034$); and performance of socioeconomic health activities ($r=.5462$, $P=.001$). There were significant negative relationships between income and performance of health activities (total) ($r=-.5995$, $P=.001$); physical health activities ($r=-.5023$, $P=.001$); and psychological health activities ($r=-.2894$, $P=.024$). There were no relationships between income and perceived psychological health needs, health needs assistance, and health activities assistance.

Results of Correlations Between Motivational Factors and Study Variables

Regular Doctor. There were slight positive relationships between having a regular doctor and perceived total health needs ($r=.2718$, $P=.023$); perceived physical health needs ($r=.2848$, $P=.018$); and perceived psychological health needs ($r=.3220$, $P=.009$). There were no significant relationships between having a regular doctor and the other study variables and sub-variables (health activities, expected assistance, and perceived socioeconomic health needs).

Physical Exam. There were significant positive relationships between having had a physical examination in the past year and perceived psychological health needs ($r=.2352$, $P<.047$); performance of total health activities ($r=.3610$, $P<.004$); and performance of activities to maintain physical health ($r=.4213$, $P=.001$). There were no significant relationships between having had a physical exam in the past year and the other needs scales (total, physical, and socioeconomic), activity scales (socioeconomic and psychological), and either expected assistance scale (needs and activities).

Health Care Visits. There were significant negative relationships between number of health care visits and socioeconomic health activities ($r=-.3011$, $P=.014$) and health needs assistance ($r=-.2904$, $P=.019$). Number of health care visits was not significantly related to any of the other variables of the study.

Significant other findings will be presented in the next section.

OTHER FINDINGS

Other significant findings among the variables of the study which were obtained by means of product-moment correlation but not included in the research questions or hypotheses are presented in this final section of Chapter V.

There was a significant moderate positive relationship between perceived total health needs and stated performance of activities to maintain socioeconomic health ($r=.4700$, $P \leq .001$).

There was a moderate positive relationship between perceived total health needs and expected assistance with health activities from health care providers ($r=.4474$, $P \leq .001$).

There was a slight positive relationship between perceived physical health needs and perceived socioeconomic health needs ($r=.2513$, $P \leq .035$).

There was a moderate positive relationship between perceived physical health needs and perceived psychological health needs ($r=.5469$, $P \leq .001$).

There was a moderate positive relationship between perceived physical health needs and stated performance of activities to maintain socioeconomic health ($r=.4906$, $P \leq .001$).

There was a moderate positive relationship between physical health needs and expected assistance with health activities from health care providers ($r=.4132$, $P \leq .001$).

There was a fair positive relationship between perceived socioeconomic health needs and perceived psychological health needs ($r=.3623$, $P \leq .004$).

There was a slight positive relationship between perceived psychological health needs and stated performance of activities to maintain socioeconomic health ($r=.3490$, $P \leq .005$).

There was a moderate positive relationship between perceived psychological health needs and expected assistance with health activities from health care providers ($r=.4142$, $P \leq .001$).

There was a moderate positive relationship between stated performance of activities to maintain physical health and activities to maintain psychological health ($r=.4735$, $P \leq .001$).

There was a slight positive relationship between stated performance of activities to maintain socioeconomic health and expected assistance with health needs from health care providers ($r=.3139$, $P \leq .012$).

There was a high positive relationship between expected assistance with health needs and expected assistance with health activities from health care providers ($r=.8458$, $P \leq .001$).

There was a moderate negative relationship between stated performance of health activities (total) and stated performance of activities to maintain socioeconomic health ($r = -.4329$, $P = .001$).

Summary

In Chapter V data were presented that described the study sample, the perceived health needs of older adults, the stated performance by older adults of health activities, and the assistance expected from health care providers by older adults with health needs and health activities. Additional descriptive data were presented which identified the person most likely to help the older adult with health needs or health activities. The Pearson Product-Moment correlation was utilized to identify the degree and direction of the relationships among the study variables. The extraneous variables (modifying and motivational factors) were correlated with the study variables. Reliability analyses were reported on the scales and sub-scales of the instrument.

In Chapter VI the research study and the data described in Chapter V will be interpreted and summarized. Conclusions will be discussed in relation to the research framework, and to the implications for nursing education, service and research.

CHAPTER VI

SUMMARY, INTERPRETATIONS, AND RECOMMENDATIONS

Overview

In Chapter VI a summary and interpretation of the research findings are presented. In addition, conclusions are made with implications and further recommendations for nursing research, education and practice.

Summary and Interpretation of Findings

Descriptive Findings of the Study Sample

As discussed in the Literature Review chapter, certain changes occur as aging progresses in the physical, socioeconomic, and psychological areas of function. Additionally, pathophysiological conditions are prevalent among the aged population. Despite these changes and conditions only 5% of the older adult population are institutionalized at any one time. Recent data from longitudinal studies (Leon, et al., 1981; Jette & Branch, 1981) have led researchers to the observation that non-institutionalized older persons can cope with aging quite well in all areas of function. Phaneuf (1981), on the other hand, reported that there are differences among the older adult population in coping ability.

Health is related to life satisfaction and coping ability (Phaneuf, 1981; Archer, et al., 1979). Preventive health activities can be effective in the older adult population (Neugarten, 1968; Belloc & Breslow, 1972; Belloc, 1973). Rosenstock (Becker, 1974) proposed that several factors may affect performance of preventive health activities as discussed in Chapter II. For the older adult population age; occupational status, marital status, housing, presence of a significant other, social interaction, and income have been demonstrated to affect health perceptions and activities. In the present study these factors were labeled modifying factors. A summary of descriptive information of the participants in the study in relation to these modifying factors will be presented in this section.

Modifying Factors

Age. The mean age of participants in the study was 72.5 years with a range from 65 to 89. The majority (49.1%) of participants were in the age group 65-70 and only six persons were over 80. There was a range of 24 years between the youngest participant in the study and the oldest, more years than it usually takes for a newborn to progress from birth through four years of college. As in any other segment of the population an age range of 24 years would account for multiple differences between individuals in all areas of function.

Sex. There were almost four times as many females (78.6%) as males (21.4%) who participated in the study. There are more women in the older adult population as a whole than there are men.

Marital Status. Only fifteen participants were married (26.8%). The remaining 73.2% of the study population were either widowed (55.4%), had never been married (7.1%) or were separated (1.8%) or divorced (8.9%). In the United States in 1975 the most common marital status of men was to be married and living with the wife (76%) but the most common marital status of women was widowhood (51%) (Kovar, 1977). The highest percentage of single older adults were from the lowest socioeconomic group (Cassels; Eckstein; and Fortinash, 1981).

Occupational Status. Only one participant was working outside the home for money. Most of the sample population was retired (82.1%) while nine persons (16.1%) listed their occupation as housewife. These data would indicate that all but one older adult in the sample population were living on a fixed income though it is possible some of the participants had income from investments.

Years of Retirement. There were 45 persons who listed the number of years of retirement corresponding to 46 participants who listed their occupational status as retired. Of those 45 participants listing the number of years of retirement, 40% had been retired between six and

ten years, 14 (13.3%) had been retired for three to five years, six persons had been retired for eight to fifteen years, five persons had been retired for 16 to 20 years and two persons had been retired for 21 to 25 years. Persons who retired as recently as five years ago have experienced a rapid escalation of inflation. What might have been a very comfortable retirement income five years ago may have become a basic subsistence level in 1982. The persons who retired many years ago could be in severe financial difficulty now.

Type of Dwelling. The majority of the older adults resided in rented apartments. Only 10 persons (17.9%) lived in one-family homes. This is not a representative sample of all older adults in the community but a function of the types of settings from which the sample population was drawn. All of the participants who resided in one-family homes and owned their homes came from the volunteer group at the hospital setting since the other four settings were all apartment units.

Household Members. One participant in the study lived with a child (or children). The number of participants listing a spouse as the person with whom they lived was 16 in contrast to the 15 persons who stated they were married in the item measuring marital status. Assuming the responses were accurate, the additional person who was living with a spouse must have been that person who was separated

or one of the persons who were divorced. The majority of the participants lived alone (69.1%). Nationally, in 1975, 37% of women aged 65 and over and 43% of those women 75 years and over were living alone in contrast to 14% and 19% respectively for men (Kovar, 1977).

Income. The income of 20 of the 48 persons (47.1%) responding to the item was below \$5,000 a year. There were 9 (18.8%) older adults with an annual income above \$15,000. The mean income group was between \$5,000 and \$9,999. Since the maximum allowable income for the subsidized housing units was \$14,500 it would appear that all of the participants in the highest income group were obtained from the hospital setting. Since this same group of hospital volunteers also were the only participants not residing in apartments it would be difficult to draw conclusions about the effect of income alone on the research findings.

Perceived Health and Native Language. Because they were criteria for inclusion in the study, all participants perceived themselves to be in good health and were able to read and understand the English language.

Motivational Factors

In addition to the modifying factors discussed above, contact with health care providers could provide the motivation for health activity (see Conceptual Framework). A description of the findings regarding contact with health care providers will be presented in this section.

Regular Doctor. Most of the participants had a regular doctor they went to see if they became ill (94.4%). Only three participants did not.

Physical Checkup. While the majority of participants had undergone a physical checkup in the past year (77.4%), twelve persons had not (22.6%). A physical checkup could be an effective preventive health activity and even though all but one older participant in the sample population utilized a regular doctor for illness care only about three-fourths of the participants had utilized a doctor for a preventive examination.

Health Care Visits. Eight participants (14.8%) had not had contact with a doctor or health clinic within the previous twelve months and seven had only been once (13.0%). Fifteen participants had been to a clinic or doctor two or three times but twelve persons (22.2%) had utilized these services four to five times and another twelve persons had had more than six visits. If these reported data are accurate 39 older persons (72.2%) accounted for 150 to more than 177 (95.3%) health care visits in a one-year period of time. Lipsitt (in Kalish, 1977) states that there are some older persons who seek visits with physicians to support dependency needs. In the future it might be beneficial to determine the reason for and the nature and outcome of the health care visits to determine if they were either appropriate or of benefit to the older adult.

In summary, the sample population covered an age range of 24 years, included both males and females in a 1:4 proportion, included both married and unmarried older adults who resided in rented apartments as well as owned houses either with a spouse, a child, or by themselves. The participants had been retired from three to twenty-five years and their annual income ranged from below \$5,000 to more than \$15,000. All of the participants perceived themselves to be in good health, most had a regular doctor, and the majority of the study population had undergone a physical checkup and had visited a doctor or health clinic two or more times in the past twelve months.

In the next section descriptive data of the study variables will be interpreted.

Descriptive Findings Posed by Research Questions and Hypotheses

An instrument was developed based on Rosenstock's Health Belief Model to assess the perceptions of older adults regarding expected health needs, stated performance of activities to maintain their health, and the extent of assistance they expect to receive from health care providers. The instrument was also utilized to describe the relationships, if any, which existed among these three variables. All scales had a moderate to high reliability (Chapter V).

Research Question 1

What are the perceived health needs of older adults?

- a. What are the perceived physical health needs of older adults?
- b. What are the perceived socioeconomic health needs of older adults?
- c. What are the perceived psychological health needs of older adults?

Perceived Health Needs (total)

Over 75% of the participants expected to experience (or had already experienced) pain and stiffness of joints (81.8%), a change in work activities (79.2%) and visual changes (78.8%). Six of the top ten perceived health needs (change in work activities, need to reminisce, difficulty doing household tasks, increased need for family closeness, change in social activities, and change in daily routines) were in the psychological area of function (Table 11). Less than 25% of the older adults in the study sample expected to experience difficulty coping (7.9%), making decisions (17.3%), problem-solving (19.2%), feeling useful (16.0%) or affording necessities (see Table 11). Most of the physical changes ranked in the middle of the total list of health needs. In the literature physical needs are most often mentioned as causing the greatest concern to older adults. One possible reason for this apparent discrepancy is that all studies reviewed in Chapter III focused on the past or present while

the participants were asked in this study to identify what they expected to experience in the future, as they grew older. In the present investigation participants were not asked to identify the perceived impact of the health need on their lives. It could be that though the older adults expect to experience these problems they also expect they will be able to cope quite adequately as evidenced by the low ranking of difficulty coping (Appendix F, Table 1-F). One other possible interpretation would be that older adults perceive themselves more positively than they perceive their peers or than others perceive them. This interpretation would support the findings of Archer, et al. (1979), LaRue, et al. (1979), Grakey and Zimmerman (1980-81), and Costello and Meacham (1980-81).

Perceived Physical Health Needs

The rank order of perceived physical health needs was presented in Table 12. More than three-fourths of the participants expected to experience pain and stiffness of joints (N=45, 81.8%) and vision changes (N=41, 78.8%), both expected as a result of the aging process. Daytime tiredness, expected by 69.8% (n=37) of the participants might be a result of changes in sleep patterns though only twenty (39.2%) participants expected to experience difficulty sleeping. Denture problems were expected by 68.0% (n=34) of the study participants though only slightly more than half that many persons (n=18, 35.3%) expected to experience

difficulty chewing. Problems with dentures may result with aging from atrophy of alveolar bone (Gift, 1979) but chewing function should not be altered in the absence of pathology (Feldman et al., 1980). Increasing deafness was expected by 60% (n=33) of the participants which corresponds with Ventura's findings (1978) that impaired hearing significantly affects 30-50% of persons over the age of 65. (Hearing loss may have been responsible, in part, for the expected change in social activities by 69.2% of the participants as presented in Table 14.) More than 50% of the older adults in the study expected to experience cold hands and feet (N=32, 59.3%) and shortness of Breath (N=33, 58.9%), both symptoms of a pathological chronic disease. Less than half of the sample population (N=24, 47.1%) expected to experience a need to change their diet. Even in the absence of chronic disease a reduction of calories is usually necessary as aging progresses due to decreasing activity levels if an older adult is to maximize health. Frequency of urination may result from a pathogen or changes in the aging bladder (Finch & Hayflick, 1977; Rossman, 1971; Reichel, 1978; Whitmore, 1981). Frequency was expected by 24 participants (46.2%) but incontinence, a symptom of pathology, was expected by only 14 persons (26.9%). Less than half of the older adult participants expected to experience edema and numbness of hands and/or feet or loss of balance which are all symptoms of chronic disease. All of the top five

physical health needs expected by the participants in the study can result from normal aging changes but could hasten loss of independence in the absence of successful adaptation (Table 12). This sample of older adults, in general, did not expect to experience many pathological conditions.

Perceived Socioeconomic Health Needs

Less than 30% of the participants expected to experience any of the socioeconomic health needs (Table 13). Difficulty paying for health care was an expected need for only 15 participants (28.3%) and ranked highest of all the socioeconomic items. Another 24.3% (N=13) of the study population were undecided if they expected to experience difficulty paying for health care and 25 persons (47.2%) disagreed with the statement (Appendix E, Table 1-E). Cassels et al. (1981) found older adults (ages 64-75 years) in all income brackets were able to adjust their expenses adequately to their available income. The majority of the participants resided in subsidized housing. Since rental fees (which include heat and electricity) are assigned according to ability to pay in these units, it was not totally unexpected that difficulty paying for housing and utilities was ranked low on the list of expected health needs. This population of persons survived the Great Depression in their younger years and that experience may benefit them in the present inflationary situation. It is surprising, however, that so few participants (13.7%, N=7) expected to

experience difficulty paying for food. Though past experience with a depressed economy may have given them beneficial coping skills, with the price of foodstuffs in the market in 1981-82 so high one can only wonder if a person with an annual income less than \$5,000 who is not having difficulty paying for food has an adequate nutritional intake.

Perceived Psychological Health Needs

More than 50% of the participants expected to experience the normal developmental changes which occur as aging progresses (Table 14). A change in work activity (N=42, 79.2%), desire to reminisce (N=35, 74.5%), difficulty with household tasks (N=39, 70.9%), the need for family closeness (N=35, 70.0%), a change in social activities (N=36, 69.2%), daily routines (N=34, 68.0%), and sexual relations (N=23, 51.1%) all require adaptation if health in late life is to be maximized. Evidence that this group of older adults expected to adapt successfully is represented by the sharp decline in percentages of persons who expected to experience the more pathological changes (decreased ability to learn: N=18, 35.3%; difficulty following medication schedule: N=12, 23.5%; difficulty problem-solving: N=10, 19.2%; difficulty decision-making: N=9, 17.3%; feelings of uselessness: N=8, 16.0%; difficulty coping: N=4, 7.9%; negative feelings: N=3, 5.9%; and lack of confidence in the ability to do things as well as their peers: N=3, 5.6%). Though this instrument is not a diagnostic tool for determining

psychological function, the profile of the study population in relation to attitude, coping ability, and self-esteem appears to be very positive. Again, this older adult population has experienced and survived many changes. Within a lifetime they have witnessed four wars, the discovery of the speed of wheels, flight faster than sound, and the landing of man on the moon. They have adjusted to rapidly advancing communication techniques from radio and the telephone to television by satellite and computers that communicate. Apparently these experiences have prepared most of the older adult participants to cope quite well despite adversity.

Research Question 2

What health activities do older adults state they perform to maintain their health and overcome health problems?

- a. What health activities do older adults state they perform to maintain physical health?
- b. What health activities do older adults state they perform to maintain socio-economic health?
- c. What health activities do older adults state they perform to maintain psychological health?

Stated Performance of Health Activities (total)

More than 50% (N=56) of the participants stated they performed each of the twenty-seven physical, socioeconomic, and psychological health activities listed (Table 15). Since all of the respondents also perceived themselves to be in good health, this finding supports the works of Belloc and Breslow (1972) who found a cumulative positive relationship between practice of health activities and physical health status, and Graney and Zimmerman (1980-81) who found a substantial significant relationship between social participation activity and health self report among older adults. This congruence among past research findings and those found in the present study indicates that the present sample was similar in performance of positive health activities in general.

Stated Performance of Health Activities to Maintain Physical Health

Almost all (N=50, 94.3%) of the participants stated they controlled their weight, consumed fresh fruits and vegetables (N=50, 90.9%) and limited their intake of alcohol and caffeine (N=45, 88.2%). A lesser percentage (N=36, 69.2%) of the participants reported they drank at least six to eight glasses of fluid a day (Table 16). These findings correspond to those of Belloc and Breslow (1972) and McGlone and Kick (1978) who found that the individuals with the best perceived physical health were slightly

underweight or within 10-20% of normal weight and were not heavy consumers of alcohol. Adequate intake of fluid is necessary to maintain maximum physical function. Though only five participants (9.6%) disagreed they had an intake of at least six to eight glasses of fluid a day, eleven (21.2%) were undecided. Health care providers working with older adults must not only stress the importance of fluid intake but explain that such an intake can include items such as soups, jellios, and ice cream as well as water and juices.

Forty-four participants (84.6%) reported participating in daily exercise but only ten persons (19.2%) strongly agreed with the statement (Appendix E, Table 1-E), four persons (7.7%) were undecided, and four reported they disagreed they exercised daily. These findings support those of Archer et al. (1979) who found that older adults were more apt to participate in social rather than physical recreation. Since exercise has been found to be highly correlated with general health status (Belloc & Breslow, 1972; McGlone & Kick, 1978) and beneficial in maintaining maximum function (DeVries, 1980; Aniansson, et al., 1980; Kale & Jones, 1981; Chapman, 1980) further research is recommended on the types of exercise acceptable to older adults, barriers to performing regular exercise, and availability and efficacy of alternative exercise activities for older adults.

Though 63.6% (N=35) of the participants reported six to eight hours of uninterrupted sleep at night 36.3% (N=20) disagreed with the statement or were undecided (Appendix E, Table 1-E). This finding reinforces the need for further research in the area of sleep and aging as recommended by Dement, et al. (1982) since adequate sleep was also positively correlated with health status (Belloc & Breslow, 1972; McGlone & Kick, 1978). Only 73.6% (29 persons) reported scheduling rest periods during the daytime. Because of the prevalence of sleep disturbances among the older adult population (Coleman, et al., 1981) health care providers must assist older persons to accept and adopt a program of rest and relaxation during the daytime hours and examine the type of sleep problems these 36.3% of older adults had.

The majority of participants stated they sought care for illness (N=47, 88.7%) and knew what each medication they took was supposed to do for them (N=50, 94.3%) but a lesser percentage stated they knew how to tell if each medication was working properly (N=42, 82.4%). Such knowledge is essential if older adults are to be active participants in therapeutic self-care. Forty-five participants (86.5%) stated they had an annual physical examination which included vision and hearing tests while only one person disagreed with the statement. Six older adults (11.5%), however, were undecided. The nature of the term "complete

physical examination" might not have been understood by some of the participants. This information should be included in health education programs for older adults as well as an explanation of the rationale for including various diagnostic and screening procedures.

The percentage of participants who reported yearly dental examination (N=42, 84.0%) was high considering Price's (1979) findings regarding the relationship of dental care to ability to pay. The finding in the present study that despite low income status participants obtained dental care is a further indication that individuals in the present study practiced general positive health behaviors.

Stated Performance of Health Activities to Maintain Socioeconomic Health

Most of the participants (N=48, 92.3%) stated they used Medicare to pay for health care services. Since all of the older adults in the study were eligible for Medicare the finding that one person disagreed with the statement and three were undecided (Appendix E, Table 1-E) may have been a factor of the confusion which exists among some older persons about what services are covered by Medicare and what are not, or if they needed them. Another item related to Medicare assessed willingness to use Medicaid to help pay for health care services. The adjacent location of these two items may have further confused some of the participants. Eligibility for Medicaid is based on low

income and only 75% (N=36) of the participants stated they would use Medicaid to pay for health care.

Only 67.3% (N=35) of the participants stated they participated in the senior citizen nutrition programs and only 60.8% (N=31) utilized free health screening programs. Each of the four socioeconomic health activities were developed to meet the special needs of persons with restricted income, including older persons. Only Medicare was utilized by most of the participants. Further study is recommended to determine why older adults in need of special services do or do not choose to participate in the programs. In addition, health care providers with an older adult clientele must establish and utilize a collaborative network among community agencies to disseminate information about available community resources among the older adult population and assist older persons to accept and participate in such programs.

Stated Performance of Health Activities to Maintain Psychological Health

All of the participants agreed they regularly enjoyed social activities with friends and/or relatives. In addition, 98.1% (N=52) of the respondents found ways to be useful to others, 96.4% (N=53) kept in close contact with relatives, and 96.0% (N=48) had someone to share memories with. These findings support those of Archer et al. (1979) who observed that the majority of non-institutionalized older

adults participated in social activity because it involved being with other persons. Seelbach and Hansen (1980) found that 80% of the non-institutionalized older adults they interviewed (N=208) were satisfied with their family relationships. Since the ages of the participants in the present study ranged from 65 to 89 these findings also support the proposal by Neugarten (1981) that the older adult population be distinguished between the young-old and old-old based on social and health characteristics rather than chronological age.

Most (N=50, 90.9%) of the participants stated they made efforts to always look their best and (N=44, 86.3%) had a hobby they enjoyed. Both of these activities are positively related to life satisfaction and well-being (Ebersole & Hess, 1980; Butler & Lewis, 1977).

A smaller percentage of participants (N=44, 83.0%) agreed they had someone with whom to share intimate thoughts and activities though there is a life-long universal need for sexual expression and intimacy (Masters & Johnson, 1981). Loss of a spouse or intimate friend through death affects intimacy activities of many older adults at some point in time. In addition, some older adults equate intimacy solely with sexual intercourse. Changing sexual response patterns resulting from physiologic aging or medication may be a source of embarrassment causing loss of self-esteem thereby inhibiting sexual expression.

For whatever reason, intimacy is necessary and health care providers must help older adults find an acceptable activity to meet this need. This item on the instrument as well as the corresponding health needs item (expect to experience changes in sexual and marital relations) were the two items which created the most comment among the participants during administration of the instrument. Reactions ranged from laughter to anger ("That's no one's business!"). This response of the elderly regarding sexuality was also found by Brower and Tanner (1979).

Upon initial examination of the data it would appear that, of all the psychological health activities, participants were less likely to agree they sought advice when necessary (N=40, 76.9%), were able to reduce stress and tension (N=39, 76.5%), and participated in educational programs (N=39, 75.0%). For each of these three items, however, there was a sizeable number of persons who were undecided (Appendix E, Table 1-E). Lack of understanding of what constitutes stress reducing measures, educational programs, or advice-seeking behavior might account for the number of undecided responses. Only two persons disagreed they had found a way to reduce stress but six older adults (11.5%) disagreed they participated in educational programs and sought advice when upset.

In summary, the majority of the older adults who participated in the study stated they performed specific

physical, socioeconomic, and psychological activities to maintain their health and overcome health problems. According to Bruhn et al. (1977), health behaviors (or activities) determine the individual's potential for experiencing wellness. It would appear that, in addition to perceiving themselves to be in good health at the time of the study, most of the older adult participants had the potential to experience wellness in the future in each area of function.

Research Question 3

What is the extent of assistance older adults expect to receive from health care providers to meet these health needs or perform these health activities?

Expected Assistance from Health Care Providers to Meet Health Needs

Over half of the participants expected to receive assistance from health care providers if they were to experience denture problems (N=33, 73.3%), visual changes (N=32, 68.1%), pain and stiffness of joints (N=30, 61.2%), and increasing deafness (N=17, 55.1%) (Table 19). The physician was the person most likely to help with visual changes (N=44, 95.7%), deafness (N=36, 81.8%), pain and stiffness (N=39, 75.0%), and denture problems (N=26, 59.1%) with "other" listed as the person most likely to help with denture problems by 34.1% (N=15) of the participants. Since the dentist could be considered as either "physician"

or "other" the researcher would recommend including the category "dentist" in the list of possible responses to "persons most likely to help" in the future.

Less than half of the participants expected to receive help from health care providers for the remaining thirty-five listed health needs (Table 19). These included such pathological needs as edema of hand and/or feet (N=20, 43.5%), shortness of breath (N=20, 42.6%), loss of balance (N=18, 39.1%), difficulty chewing (N=15, 34.1%), numbness of hands and/or feet (N=14, 30.4%), incontinence (N=13, 27.7%), cold hands and/or feet (N=10, 20.4%), having negative feelings about self (N=9, 19.6%), difficulty coping (N=8, 18.2%), and difficulty sleeping (N=7, 16.7%). The physician was most likely to help with edema (N=27, 65.9%), shortness of breath (N=29, 60.4%), loss of balance (N=32, 69.6%), chewing (N=16, 42.1% - other N=10, 26.3%), and numbness (N=25, 58.1%). Though the physician was listed as the person most likely to help with incontinence (N=19, 42.2%), another 37.8% (N=11) of the participants expected no one to help (Appendix F, Table 5-F).

The person listed as most likely to help with cold hands and/or feet was "myself" (N=23, 48.9%) though 34.0% (N=16) of the participants again listed the physician and 14.9% (N=9) expected no one to help. Most of the participants expected to help themselves maintain positive feelings (N=26, 66.7%) or receive help from relatives (N=7, 17.9%).

Again, the person most likely to help the older adult cope was "myself" (N=26, 68.4%) although an equal percentage of the participants (N=7, 18.4%) expected help from the physician and from relatives with coping problems. An additional 13.2% (N=5) expected to receive no help with coping (Appendix F, Table 5-F). While 39.5% (N=15) of the older adults expected the physician to help should they experience difficulty sleeping, 30.2% (N=13) expected they would help themselves and 30.2% (N=13) did not expect assistance from anyone.

Most older adult participants expected to help themselves to do things as well as others (N=32, 84.2%), to cope (N=26, 68.4%), to adapt to changing work (N=29, 72.5%) and social activities (N=21, 50.0%), to change daily routines (N=22, 55.0%), to overcome constipation (N=17, 35.4%), daytime tiredness (N=21, 44.7%), difficulty paying for food (N=18, 42.9%), housing (N=15, 37.5%), health care (N=13, 28.3%), and utilities (N=15, 35.7%), to cope with forgetfulness (N=17, 43.6%), and to solve problems (N=16, 41.0%) and make decisions (N=18, 46.2%). An equal number of participants (N=15, 31.9%) expected to help themselves or be helped by relatives should they experience difficulty doing household tasks.

Relatives or friends were the persons most likely to help with an increased need for family closeness (N=29, 70.7%) and reminiscence (N=22, 56.4%).

The majority of participants did not expect help from anyone with decreased ability to smell odors (N=19, 44.2%), difficulty purchasing clothing (N=14, 34.1%), or paying for social activities (N=15, 30.6%).

No one was listed as most likely to help with changing sexual and marital relations by 39.5% (N=15) of the participants while 36.8% (N=14) felt they would help themselves.

The findings relating to expected assistance from health care providers with health needs support those of Brody and Kleban (1981); Sivertson (1978); Wright et al. (1979-80); and Berkanovic, et al. (1981) in that older adults utilize health care providers for episodic illness care and attempt to cope with other health care problems themselves, through personal support systems (relatives or friends), or not at all (no one). O'Brien and Wagner (1980) state that the strongest potential for aid to the elderly may be from older adult peers rather than younger persons. Less than half of the participants expected to receive help with many pathological health needs. This finding supports that of Haug (1981) who found that the aged under-utilize physician services for more serious conditions. This researcher concurs with Haug's recommendation that a need exists to educate the public on the common problems and changes which often occur as aging progresses to help older adults and their families sort out the symptoms requiring

attention from those symptoms which do not.

Kovar (1977) found by analyzing national health statistics that more than 90% of the older adults seen in ambulatory care settings had been seen by the physician previously and 80% had been seen for the current problems before. The bulk of ambulatory care was for follow-up and continuing care. Nurse clinicians have been educated to provide health maintenance services to clients yet none of the participants in the present study identified a nurse as the person most likely to help with any of the thirty-nine health needs. One reason for the lack of utilization of nurses as health care providers by older adults is the unavailability of nurses in expanded roles in primary care settings. Another reason may be that, as Haug pointed out (1981), older adults view the physician as an authority figure and have been socialized to do so and accept physician authority both in attitude and behavior. Salkever, Skinner, Steinwachs and Katz (1982) found while nurse practitioners' care was less costly it was not less effective in a pediatric clinic. Research must be conducted to identify the efficacy of nurse clinician service in providing health care to older adults in ambulatory settings. Such research would identify if older adults would accept nurse services instead of the more costly medical service as well as evaluating the outcomes of such nursing care on health status.

Expected Assistance from Health Care
Providers with Health Activities

More than half of the participants expected to receive assistance from health care providers with knowledge of the effect of medications (N=33, 76.7%), the purpose of medications (N=35, 76.1%), illness care (N=35, 76.1%), annual dental (N=33, 71.7%) and physical (N=32, 71.1%) examinations, using Medicare (N=26, 59.1%) and Medicaid (N=24, 53.3%). The physician was most likely to help with the first five activities and the social worker was most likely to help the older adult utilize Medicare and Medicaid. Less than half of the older adult participants expected health care providers to assist them with the other twenty preventive health activities (Table 20).

Older adults expected to help themselves establish a daily exercise program (N=16, 74.5%), control their weight (N=30, 61.2%), control smoking (N=35, 79.5%), limit alcohol and caffeine (N=38, 84.4%), schedule daytime rest periods (N=37, 88.1%), obtain adequate sleep (N=31, 72.1%), and fluid intake (N=34, 79.1%), pursue a hobby (N=33, 78.6%), obtain free health screenings (N=10, 26.3%), maintain physical appearance (N=38, 92.7%), manage stress (N=22, 55%), participate in educational programs (N=19, 48.7%), and find ways to be useful (N=28, 70.0%).

Relatives or friends were most likely to help with sharing memories (N=29, 70.7%), enjoyment of social activities (N=30, 71.4%), sharing intimacy (N=28, 63.3%), maintaining family contact (N=27, 65.9%), and necessary advice

(N=14, 33.3%).

The fact that older adults in this study did not expect to receive more assistance with health activities from health care providers may be a function of the unavailability of primary health care services addressing socioeconomic needs, preventive medicine, rehabilitation, and social and mental health of older adults as found by Moore and Fillenbaum (1981) and Sivertson (1978). It might also be a lack of knowledge by older adults that differences exist as to the best type of activity to maintain health depending on individual health needs. On the other hand, Archer et al. (1979) found older adults stated they would like assistance with many preventive health activities if possible. Based on the descriptive findings of the present study regarding expected assistance with health activities from health care providers and Archer's findings, it is recommended that each agency with an older adult clientele include both individual and group counseling and instruction in preventive health activities directed toward promoting socioeconomic and psychological as well as physical health of older adults. In addition, research should be conducted to evaluate the effect of such health activity problems on future health status of the participants and their willingness to participate and assume responsibility for continuing the activity on their own.

Relationships Among the Study Variables

In the present study, seven hypotheses regarding the relationships between the study variables were rejected and five were not rejected. In the following section, the relationship findings will be discussed and conclusions drawn as to the significance of the relationships or lack of relationships between the study variables.

Hypothesis 1: There is a positive relationship between perceived total health needs and stated performance of health activities of older adults.

Hypothesis 1a: There is a positive relationship between perceived physical health needs of older adults and their stated performance of health activities to maintain physical health.

Hypothesis 1b: There is a positive relationship between perceived socioeconomic health needs of older adults and their stated performance of health activities to maintain socioeconomic health.

Hypothesis 1c: There is a positive relationship between perceived psychological health needs of older adults and their stated performance of health activities to maintain psychological health.

There was no significant relationship between the perceived health needs (total) of older adults and stated performance of health activities (total) or between the physical, socioeconomic, or psychological health needs and corresponding health activities. While this finding appears to indicate that older adults do not practice preventive health

activities, examination of the data does not support this conclusion. The majority of older adult participants stated they performed each of the listed health activities. The lack of a relationship between these variables and sub-variables is best explained by re-examining the definition of health activity as defined in the present study and discussed by Bruhn et al. (1977) and Tager (1981). Health activities are directed toward the goal of maintaining physical, socioeconomic, and psychological health. Though the older adults in the study were performing preventive health activities those activities were part of a pattern of behavior or health habits that they had developed throughout their lifetimes but not specifically directed toward preventing or overcoming a possible future health need or problem. Bruhn et al. (1977) and Tager (1981) maintain that in order to achieve progressively higher levels of health and move toward wellness an individual must assume responsibility for health, make effective personal choices based on knowledge among various alternatives, and continue to learn new behaviors as development progresses. As Whitbourne and Speebeck (1981) propose, the elderly do not need to be taught what health activities to perform but do need to be assisted to use and refine what they are already doing.

The task of health care providers caring for non-institutionalized older adults is to develop the potential

for wellness that already exists, as evidenced by their practice of positive health activities, by providing instruction and knowledge and guiding them to direct those health activities toward meeting an expected future health need. The effectiveness of such an intervention would be demonstrated by a measurable change in the relationship between perceived health needs and changed stated performance of health activities as a total indicator and in the relationships between physical needs and activities, socioeconomic needs and activities, and psychological needs and activities.

Hypothesis 2: There is a positive relationship between perceived health needs (total) and the extent of assistance expected from health care providers.

Hypothesis 2a: There is a positive relationship between perceived physical health needs of older adults and the extent of assistance expected from health care providers.

Hypothesis 2b: There is a relationship between perceived socioeconomic health needs of older adults and the extent of assistance expected from health care providers.

Hypothesis 2c: There is a relationship between perceived psychological health needs of older adults and the extent of assistance expected from health care providers.

There was a moderate positive relationship between perceived health needs (total) and the assistance expected

by older adults with those health needs from health care providers ($r=.60$, $P\leq .001$). There were similar positive relationships between physical needs and assistance, psychological needs and assistance, and socioeconomic needs and assistance although the correlation between socioeconomic needs and expected assistance with health needs was weaker than the other relationships ($r=.30$, $P=.016$). Older adults expected to receive assistance from health care providers when they experienced a need regardless of whether that need was in the physical, psychological or socioeconomic area of function. These findings were similar to those of Berkanovic, et al. (1981) who found that among the general population, the major predictor variables in the decision to seek medical care were all symptom related.

Hypothesis 3: There is a negative relationship between the stated performance of health activities of older adults and the extent of assistance expected from health care providers.

Hypothesis 3a: There is a negative relationship between the stated performance of health activities of older adults to maintain physical health and the extent of assistance expected from health care providers.

Hypothesis 3b: There is a negative relationship between the stated performance of health activities of older adults to maintain socioeconomic health and the extent of assistance expected from health care providers.

Hypothesis 3c: There is a negative relationship between the stated performance of health activities of older adults to maintain psychological health and the extent of assistance expected from health care providers.

There were no significant relationships between stated performance of health activities (total), socioeconomic activities, and psychological health activities and expected assistance but there was a relationship between stated performance of physical health activities and expected assistance, though not in the negative direction as hypothesized. The researcher had hypothesized that older adults who performed health activities to maintain physical health would expect less assistance with those activities than those who did not, assuming that those who did not practice the activities would expect assistance in order to adapt the activity.

As discussed earlier, the majority of older adults did practice all health activities. The finding that physical health activities had the only relationship to expected assistance and in a positive, rather than a negative direction, indicates that among this older adult population, assistance with activities to maintain physical function was the only activity assistance seen as being within the realm of health care providers. This is again part of the pattern of utilization of the health care system for physical care rather than socioeconomic and psychological preventive

health care. An additional interpretation might be that, though there was no relationship between perceived needs and activities, older adults are partially aware that there might be activities they could perform to maintain their health, especially in the area of physical function, and they would like health care providers to help them to develop these behaviors more fully. This interpretation would support Archer's (1981) findings that the older adults in the community do desire assistance with health promotion activities.

The interpretation of the findings regarding the hypotheses may be further clarified by examining the other significant relationships not included in the research questions.

Other Findings

That there were significant moderate positive relationships between perceived total, physical, and psychological health needs and performance of socioeconomic health activities may indicate that older persons are attempting to prepare financially for future health problems by taking advantage of free or inexpensive health-directed programs now. With only three items on the socioeconomic activity sub-scale and an alpha coefficient of .57 any interpretation of a relationship between another study variable and socioeconomic activity must be cautious. A possible further

interpretation might be, as Archer et al. (1981) found, that older adults participate in activities because of the social interaction with others. Both the free health screening clinics and the nutrition programs offer a chance for intense social interaction.

A further indication that older adults wish to participate more in therapeutic self-care is evidenced by the moderate positive relationship between expected future total, physical, and psychological health needs and expected assistance with health activities from health care providers.

There was a high positive relationship ($r=.85$, $P=.001$) between expected assistance with health needs and expected assistance with health activities. The implications are that older adults expecting future health needs do see health care providers as potentially valuable should problems arise as they grow older, and also expect health care providers to assist them to perform self-care activities. It appears older adults would like to participate in more effective health care activities but need instruction, guidance, and/or support to do so.

The modifying and motivational factors which were related to the study variables will be discussed in the next section.

Modifying and Motivational Factors

Various modifying and motivational factors were related to the study variables as proposed in the conceptual model (Figure 3).

Age. With increasing age the participants expected to experience more total, physical, and psychological health needs (Table 22). There was no relationship between age and socioeconomic health needs which might have been a function of the small number of items on the socioeconomic needs subscale or the fact that persons, regardless of age, did not expect to experience socioeconomic health needs (Table 13) or were already adapting to financial constraints.

Age was also related to stated performance of socioeconomic health activities (as the age of the participants increased they were more likely to perform socioeconomic health activities), expected assistance with health needs, and expected assistance with health activities. The older participants were more likely than the younger persons in the study to expect assistance from health care providers with both needs and activities. As Kovar (1977) pointed out, prevalence of chronic disease and disability sharply increases at about age 75. The increased assistance expectations of the oldest persons in the present study reflects this statistical fact.

Sex. Gender was not related to any of the study variables although in other studies (Branch & Jette, 1981;

Jette & Branch, 1981) women reported more health problems than did men. It may be that both males and females share the same expectations of future health needs and only in actual experiences do women report more symptoms and disability.

Marital Status. Marital status was not related to any of the study variables although the presence of a significant other to provide support has been demonstrated to affect activities (Archer, et al., 1981) as well as life-satisfaction (Larson, 1978; Phaneuf, 1981).

Occupational Status. There were not significant relationships between occupational status and the study variables.

Years of Retirement. Persons who had been retired the greatest length of time tended to perform less total, physical, and psychological health activities. This was not totally a function of age as there were no correlations between age and the same health activities. It would appear that differences exist between previously employed persons and those never employed and that those differences increase with the numbers of years that have passed since retirement. Such differences are unexplainable within the confines of the present study.

Type of Dwelling. Persons in the subsidized apartments expected to experience more health needs (total and physical) than did those residing in a single-family home.

These persons in the apartments also stated they performed more socioeconomic health activities. The senior housing units are often the sites of nutritional programs and health screening clinics which would explain part of the difference in socioeconomic activity performance. Independence in performing activities of daily living is a requirement for residents of the senior housing units. When a resident is no longer able to function independently he/she must relocate, often to a long-term care facility. Residents of the apartment complexes have undoubtedly seen this occur among their friends and neighbors. This could account for the differences in perceived health needs based on the type of dwelling since not all of the differences are explained by income alone. Persons in single-family homes were more apt to perform total and physical health activities, perhaps because of additional resources (financial, transportation). Maybe in their own dwelling individuals sense a need for greater self responsibility.

Household Members. Persons living with a spouse or a child were more apt to expect future socioeconomic and total health needs than persons living alone, perhaps a function of anticipating the future loss of a spouse or ability to reside with a child or the perceived threat of loss of control. They were also more apt to practice total and psychological health activities, probably because they interacted daily with a significant other.

Income. More participants in the lower income brackets expected to experience total, physical, and socioeconomic health needs, performed fewer total, physical, and psychological health activities, but performed more socioeconomic health activities than did persons in the higher income brackets. Phaneuf (1981) and Snider (1981) reported poorer health and health perceptions among older adults in the lowest income groups. This finding reinforces the need to focus provision of health promotion, education, and maintenance services to older adults who are economically deprived.

Contact with Health Care Providers. Persons who had a regular doctor anticipated more future health needs, both physical and psychological than those who did not. Participants who had undergone a physical examination within the past year were more apt to expect future psychological health needs and more apt to practice total and physical health activities than those who had not. As the number of health care visits increased over one year's time, so did performance of socioeconomic health activities and expected assistance with health needs. Contact with a health care provider appears to have heightened the older adult participants' awareness of possible future problems and may have increased performance of positive health activities, especially to maintain physical health. This contact did not, however, assist the older adults to direct health activities toward meeting an expected future health need. Health care providers

may not perceive that health activities can be effective in maintaining health of older adults as hypothesized by Butler (1975), or may not have the knowledge of what specific health activities can be beneficial in overcoming specific health needs and how to adapt those specific health activities to the life-style of the individual older adult. The increase in performance of socioeconomic activities with increasing frequency of health care visits may reflect the financial strain created by costly health care services.

A revised model schematically representing the correlational findings from this present study is presented in Figure 5.

Older adults expected to experience future health needs and stated they performed health activities but there was no relationship between their expectations and preventive health activities. The conclusion is that, in the sample, non-institutionalized older adults are not performing therapeutic self-care to maintain their health and overcome problems. Since they were engaging in positive health activities, however, a second conclusion is that the potential exists among this population of persons for development of a planned program for therapeutic self-care without major life-style changes and directing them to see relationships to maintain health and overcome problems.

Expectations of future health needs were greater among the oldest participants, those with a regular doctor,

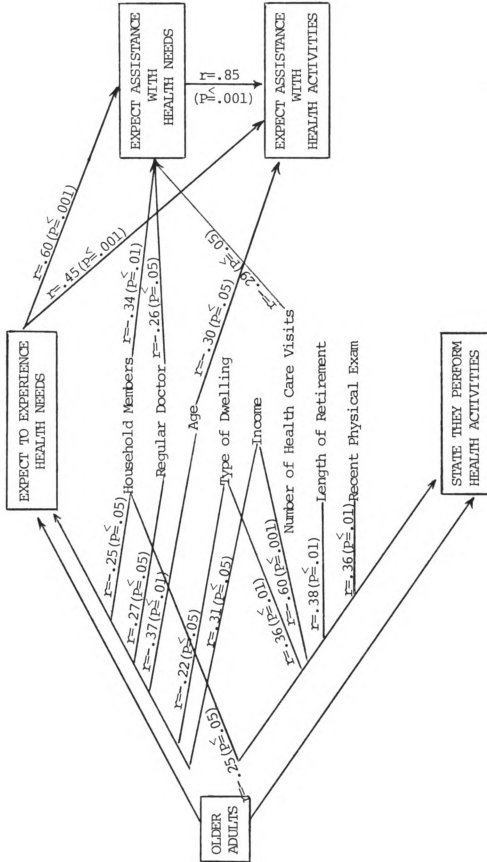


Figure 5. Correlational Model of Relationships

those living with a spouse of a child in a senior apartment complex, and those persons in the lower income brackets (Figure 5). In conclusion, senior citizen housing units would be excellent settings in which to provide individual, family, and group programs to clarify perceptions of the normal and abnormal changes which often accompany the aging process and what active role they can take to do something about it. The majority of participants resided in such housing units and may have skewed the data therefore caution must be used in concluding low income housing units would be the best settings for such programs.

The majority of participants stated they performed all of the health activities but younger participants in higher income brackets residing with a spouse or child in single family homes who had been retired for a shorter period of time and had undergone a complete physical examination within the past year reported the highest frequencies of health activities (Figure 5). In conclusion, though all participants could benefit from goal-directed health activity programs, the poor elderly living alone seem to have the greatest need as well as being in higher risk of inadequate resources.

As expectations of health needs increased so did expectations of assistance, not only with health needs but also assistance with health activities (Figure 5). Older retired persons living with a spouse or a child and making

frequent health care visits expected more health needs assistance (Figure 5). The oldest participants also expected more assistance with health activities from health care providers (Figure 5). In conclusion, older persons expect assistance from health care providers should health needs arise but also expect health care providers to help them perform health activities to maintain their health and overcome their problems.

In summary, a small sample (N=56) of non-institutionalized older adults (ages 65-89) did perceive future health needs and did, in general, state they performed health activities. They also expected health care providers to assist them, primarily in the area of physical needs and activities. There was no relationship between expected future health needs and stated performance of health activities but a strong relationship between perceived future health needs and expected assistance from health care providers, both with health needs and with health activities. It would appear that these older adults, in anticipation of perceived future health needs, desired to become more involved in performing health activities directed toward maintaining their health and expected health care providers to help them meet future health needs as well as to assist them with health activities now.

Limitations of the Study

In addition to the eight limitations of the study outlined in Chapter I, there were some additional limitations which might have affected the results.

1. The data were collected among groups of older adults. There was conversation among individual group members during administration of the instrument. It is possible that answers to the items could have been influenced by opinions of others beside the individual respondent.

2. A large majority of the sample population were in the lowest income bracket and were residents of low income subsidized housing units which could account for differences in addition to those measured in the study.

3. No data were obtained on educational background of the participants. Educational level could account for some of the differences among the variables.

4. There were no objective data obtained on health status of the participants. It is possible that actual health status of the participants was different from perceived health and might have influenced individual perceptions of needs and/or performance of health activities and expectations of assistance.

5. There were no qualitative or quantitative data obtained of actual performance of health activities which might have accounted for differences in perceptions of

performance of activities.

Recommendations for Study Replication

It is recommended that this study be replicated among other populations of older adults such as church groups and retirement communities not limited to low-income populations. It is also suggested that use of this instrument might be a valuable tool to use in assessing groups and/or individuals in the pre-retirement ages in order to assist them to prepare for retirement in a manner which will best meet their needs and help them relate activities to health.

The researcher can attest to the value of using a multiple contact methodology to obtain volunteers. Consistent with the experiences of Archer, et al. (1979), it is becoming increasingly difficult to gain entry into groups of older adults due to the increasing focus of attention on the needs of this population. In the present study, there was some concern expressed by the residents at the council meetings that the questionnaire results would be utilized to take away even more benefits than had already been eliminated in recent budget cuts. Allowing the prospective participant groups to make the decision regarding recruitment of volunteers and to establish the date, time, place and protocol for administration of the instrument greatly facilitated recruitment and cooperation though the sample obtained may not have been totally representative of the older adult population in general. Additionally, allowing time between initial contact

with prospective participants and actual administration gave the individuals a chance to discuss the upcoming event among themselves.

This researcher would also recommend that the investigator(s) be present during administration. It became an excellent opportunity to conduct informal health education as the participants often stayed to discuss individual problems or ask general questions of this researcher after they had completed the instrument.

In replicating the study it is recommended that additional socioeconomic items be added to both the health needs and the health activities scales to improve the alpha coefficients and, therefore, the internal consistency of the scales. In this manner results would more accurately reflect existing relationships among the study variables and the socioeconomic variables.

It is also recommended that level of education be included as a modifying factor in the sociodemographic section of the instrument. Those items which were deleted because of low factor-loading values should be reworded in an attempt to increase the correlations between the deleted items and the rest of the items on the appropriate scales and sub-scales.

In further studies it is recommended that more advanced statistical procedures such as multiple regression be utilized to analyze the data. In this manner predictor

variables might be identified that would be the best indicator of a health need, activity, or expected assistance. Curvilinear relationships may have existed among some of the modifying and motivational factors (years of retirement) which were undetected by means of the Pearson product-moment correlational techniques.

Relationship of Results to Conceptual Model

Though the research was not designed to test the variables contained in the Health Belief Model, it would appear that perceived susceptibility to various physical, socioeconomic, and psychological health needs did not influence the likelihood performing preventive health activities in an older adult population taking into consideration fourteen motivating and modifying factors as in Figure 1 (p. 28). The health activities generally performed by the older adults in this sample were more a function of a life-long pattern of development of health habits consistent with the thesis outlined by proponents of the continuity theory of aging than a function of perceived threat of a condition or disease.

For these adults to experience wellness and maximize life-satisfaction they need to understand how health behaviors can positively affect future health, even at an old age, and need to alter, redirect and/or strengthen present health habits to better reflect expected health needs as proposed by Bruhn, et al. (1977), and represented in

Figure 2 (p. 32).

Expected Assistance was an appropriate addition to the preventive health belief model for older adults (Figure 3). Though the older adults were not acting as self-care agents by directing specific activities to prevent future health problems, they were interested in maintaining health as demonstrated by the strong relationship between health needs and expected assistance. They also expected health care providers to provide assistance with health activities (Figure 5).

Based on the revised correlational model (Figure 5) of the research findings and utilizing Orem's nursing model (Figure 4) the implications for nursing will be presented in the next section.

Implications for Nursing

Nursing Assistance

The older adults in the study sample did expect assistance from health care providers with health needs and health activities (Figure 5). They were able to perform self-care activities as evidenced by the high percentage of participants who stated they performed each health activity. These health activities, however, were not therapeutic in that they were not directed toward meeting any particular perceived health need. The participants expressed a desire to learn to perform therapeutic self-care as evidenced by the

high correlation between expected assistance with present health activities and perceived health needs (Figure 5). Types of assistance needed from health care providers to enable older adults to perform therapeutic self-care are related to decision-making, behavior change and control, and acquiring knowledge and skills. All of these characteristics indicate a requirement for a supportive-educative nursing system as conceptualized by Orem (Figure 4).

The nursing process consists of assessment, planning, intervention, and evaluation. Using that process, the professional nurse, practicing within a supportive-educative nursing system, can provide assistance to independent older adults through guidance, support, teaching and creating a developmental environment as represented in Figure 6.

Individual older adults have differing expectations of health needs as identified by analysis of research data and presented in Table 11. Nursing assistance can be provided to older adults to help them clarify their perceptions of their health needs. An understanding by both the nurse and the client of present and expected future health needs is necessary before any planning or decision-making can occur. Once needs have been identified and alternative activities explored, the nurse can assist the older adult to direct those selected activities toward preventing, delaying, or adapting to the limitations of a health need (Figure 6).

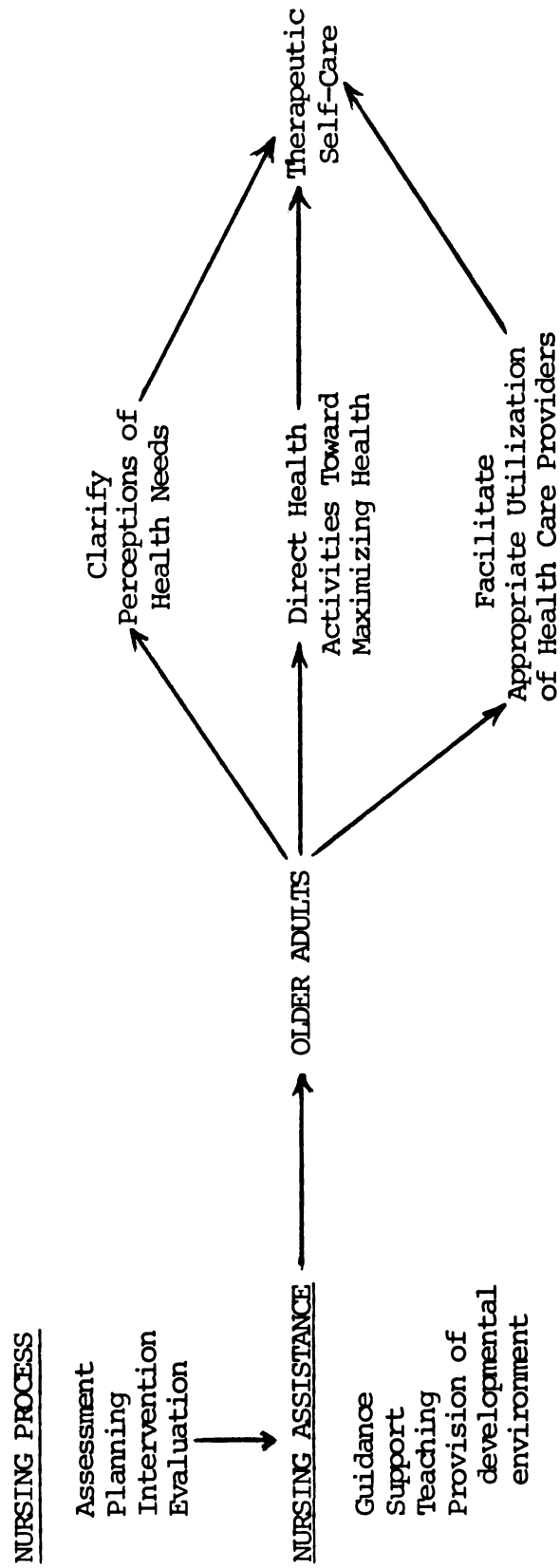


Figure 6. Revised Model of Nursing Assistance to Older Adults

One of the findings in this study (as well as in preceding research) indicated that older adults primarily expect assistance from health care providers for physical illness care. The provider seen as most likely to help was predominately the physician. With increasing numbers of older adults, decreasing Medicare benefits, and the prevalence of chronic disease among this population, it has become impossible for one health care provider to meet all of the health care needs of all older adults. A third area of nurse assistance implicated by the results of this study is in facilitating the appropriate use of health care providers, including, but not limited to, the physician. Nurses, especially those in expanded practice, can be utilized to provide much of the follow-up and continuing care accounting for the majority of physician visits by older adults. Older adults, however, must view the nurse as an appropriate resource for health promotion and maintenance service. Nurse clinicians must take the initiative to establish practices in settings which would allow for greater visibility as autonomous health care providers for older adults. Older adult clients should be utilized to help plan services based on these needs and to evaluate the effectiveness of nursing assistance in helping them meet health care needs. Alternative nursing practice settings should not be limited to medical clinics but might include apartment complexes or senior centers.

Utilizing the supportive-educative nursing system, the nursing process, and methods of nursing assistance described above, older adults can and should become capable of therapeutic self-care. In addition, self-care activities, with nursing assistance, will be directed toward maximizing health rather than simply maintaining health or overcoming problems. Older adults should and could experience wellness as aging progresses (Figure 6).

This type of nursing assistance can be practiced in many settings and is appropriate for individuals, families, and small or large groups.

Nursing Practice

Since differences existed between individuals regardless of socioeconomic characteristics any nurse with a clientele of older clients must assess the individual perceived needs of each older adult before planning a program to improve self-care activity. Any one activity is not appropriate for all older adults nor may it be acceptable to each individual depending on age, life-style or various other modifying factors. Rather than trying to substitute a new health activity for an already existing positive health activity the old method should be adapted to better meet the client's existing needs and preferences.

Families should be included in planning and implementing self-care education and activity for older adults since they may be the first source of help when a health

need is experienced. The term "family" can be utilized to include any and all persons whom the older adults perceive as important in their personal lives. A "personal health history form" has been developed by Jepson-Taylor to facilitate inclusion of significant others in self-care activities of older adults (Jepson-Taylor, 1982).

Small groups, as utilized in the present study, can be an effective means of providing instruction and knowledge about the normal changes inherent in the aging process, common problems and self-treatment of those problems, differentiation of serious and non-serious conditions and/or symptoms, and various health activities. Ward (1979) found that actual involvement in on-going group activities were more meaningful to older adults than episodic activities such as single session educational programs. Groups for older adults may be more beneficial when they provide more than a simple escape from boredom and isolation (Ward, 1979). In conjunction with the present study, nurses should implement small group health activities among pre-existing older adult groups such as in senior centers, apartment complexes, church groups, or senior clubs. Again, activities should be planned based on the perceived needs and preferences of the group members. In addition, nurses should work with directors of already existing health programs (nutritional sites) to develop goals for the programs consistent with self-care goals of the participants.

Large groups such as entire residential complexes can also be utilized to foster therapeutic self-care among the older adult population. All residents of a housing unit could be surveyed by means of the instrument developed for the present study to assess general perceptions of needs, performance of activities, and expectations of assistance. This assessment would reveal priorities for program planning. A long-range program consisting of instruction, guidance, and participation in multiple health activities would assist older adults to maintain their independence and prevent or delay involuntary relocation.

The implication for the nursing profession is to become assertive and creative in assisting older adults to become therapeutic self-care agents and to be aware of how nurses can help. As Stevenson stated (1981):

Nursing over the past decades has moved increasingly toward optimizing the self-care of the ill and disabled through patient teaching and rehabilitation. The natural next step is a growing commitment toward health promotion and higher-level wellness as a goal of nursing practice.

Innovative nursing programs have been initiated in a few locations. An ambulatory preventive program for the elderly was instituted in Colorado and was effective in developing an awareness and responsibility among the older adult clients for health care maintenance (Furukawa, 1981). A program was conducted in Virginia in which older adults were

activated and trained in self-care and, in turn, provided self-care assistance and self-care education to their home-bound peers (Kosidlak, 1980).

For such programs to become practical nurses must become active politically to obtain policy changes favoring support of health promotion assistance by nurses both financially and philosophically.

A second imperative is that nurses become knowledgeable about community agencies and resources for older adults and actively create a network of resource persons from other professions with whom to consult and collaborate. In this manner, older adults may be assisted to utilize the health care system for other than medical care.

A third imperative is that nursing educators prepare nursing practitioners at each level to provide nursing service to older adults in any setting.

Nursing Education

As Stone (1982) stated, to care for older adults it is not enough to have a knowledge of nursing; one must also have a knowledge of gerontology. Though some universities have Master's programs in gerontological nursing there are not enough applicants presently to use the available fellowships (Stone, 1982). Other graduate programs such as critical care nursing do not lack for applicants. Stone maintains nursing educators have failed to make gerontological nursing dynamic and yet it has the potential to be

exciting.

One reason for the apparent lack of excitement in gerontological nursing may be the negative stereotype of "being old." The implications of the present research findings are that "being old" is not a depressing state of affairs. The older adults who participated in the study felt healthy, were active, and wanted to become more active in managing their own health despite age, losses, and economic restraints. Having a positive attitude toward the elderly, however, was not found to be related to the willingness of professional nurses to care for the elderly (Meyer, Hassanein, & Bahr, 1980).

Robb and Malinzak (1981) examined knowledge levels among nurses caring for older adults and concluded that gerontological nursing should be a discrete rather than an integrated part of the nursing curriculum at each level of nursing education (Associate Degree, Baccalaureate, Masters, Doctoral) and be included in continuing education programs.

Both the Meyer, et al. and the Robb and Malinzak studies were conducted in acute and long-term health care settings. Nurses in these studies did not have adequate knowledge of gerontology, though they all had nursing knowledge, to meet the special needs of older adults when disabled. Great excitement exists in the areas of health education, promotion, and self-care among pediatric, maternity, and adult nurse practitioners. To create excitement

for gerontological nursing the implication for nursing education is to include in the curriculum at each level of nursing education material relating to the 85-95% of the older adults who are not seriously disabled. This material should focus on the normal changes of aging rather than the pathological conditions present in many older adult individuals. Education should focus on the preventable and treatable common problems of older adults (i.e., constipation) rather than irreversible conditions such as cerebral vascular disease or organic brain syndrome. Such normal aging changes and common problems exist among the aging population regardless of health status. With the knowledge of common problems nurses can assist older adults to adapt to pathological and irreversible conditions while maintaining adaptive self-care activity and thereby experience wellness despite a debilitating illness or condition.

Thirdly, educational programs for nurses should focus on health activities beneficial in maintaining and maximizing health as appropriate for an older population. Gerontological nursing standards must be taught and incorporated into the practice of every nurse.

A fourth implication for nursing education is that the curriculum should include, at all levels, instruction on how to obtain information from and collaborate with community agencies. Whether the practice setting is within an institution or in an ambulatory setting, effort must be

made to pool all available resources to assist older adults to maintain their independence and avoid institutionalization.

In this manner nurses caring for older adults in any setting and with any type of educational background will understand the commonalities among an aging population and assist older clients to perform therapeutic self-care regardless of the extent of ability or disability.

Sensitization to the well older adults is an equally important facet of the educational process. Too often nursing students gain their only gerontological experience among the frail or ill elderly in acute- or long-term care settings. How much more appropriate it would be if they first gained experience with healthy, active older adults.

Gerontological nursing education, as well as practice, must be based on a scientific body of knowledge. Gerontological nursing research must and can provide that body of knowledge.

Nursing Research

The American Nurses' Association (1981) identified the following six research priorities for the 1980s:

1. Promoting health, well-being, and competency for personal care among all age groups.
2. Preventing health problems throughout the life span that have the potential to reduce productivity and satisfaction.

3. Decreasing the negative impact of health problems on coping abilities, productivity, and life satisfaction of individuals and families.
4. Ensuring that the care needs of particularly vulnerable groups are met through appropriate strategies.
5. Designing and developing health care systems that are cost-effective in meeting the nursing needs of the population.
6. Promoting health, well-being and competency for personal health in all age groups.

There are implications based on the results of the present study for further nursing research in each of the prioritized areas.

The first implication for nurse researchers of the findings from this study is for replication. Not only should similar samples be surveyed but researchers should seek commonalities and differences among various other groups of older adults. Similar results from many various samples of older adults would strengthen any political effort to obtain funding for health promotion programs. Commonalities found among all groups sampled could be utilized to establish priorities for nursing intervention.

A second implication for nurse researchers is to test the health belief model constructs among the older adult population. It would appear that different relationships may exist between the variables among an older population than exist among younger groups. If the HBM is to be eventually utilized as a basis for prediction and intervention

it should be applicable to all healthy persons regardless of age.

Nurse researchers should direct research efforts toward identification of alternative health activities acceptable to older adults which would maximize physical, socioeconomic, and psychological health. This would include experimental studies evaluating the subjective and objective effects of health activities in preventing, delaying, or minimizing disability from a health need.

Not only should the effects of various activities be studied, but the effects of nursing intervention on the improvement of therapeutic self-care activities of older adults should be analyzed and documented. Nurse researchers in clinical practice must experiment with and analyze not only the subjective and objective changes as a result of nursing interventions, but the willingness of older adults to continue the health activity without assistance upon completion of the formal program.

Because of the present limitation of funding resources and the highly competitive market for those limited funds, nurse clinicians must research and publish the cost-effectiveness of health promoting nursing service to older adults. If nurses can demonstrate that nursing care is an appropriate alternative to medical care for much of the ambulatory health care needs of the well-elderly, society in general as well as older clients and their families will be

willing to utilize the health care system more appropriately.

Finally, the high alpha coefficients of the instrument developed for the study imply that effort should be directed toward further refining the instrument to improve the internal consistency of the socioeconomic scales and to evaluate the instrument for construct validity. Should the instrument prove to be both reliable and valid among a large population of older adults it might be utilized as an index of self-care potential of older adults in general in future research directed toward optimizing health.

For use as a practical clinical assessment tool not requiring sophisticated statistical analysis the instrument must be simplified and tested in clinical sites. A checklist format rather than use of a Likert scale might be sufficient to identify individual and group needs for clinical health care interventions, thereby further incorporating nursing research into nursing practice.

In summary, in Chapter VI the research results have been interpreted, conclusions have been made, recommendations have been suggested for further study, and implications for application of the study findings have been presented in respect to nursing practice, nursing education, and nursing research.

APPENDIX A

INTRODUCTORY LETTER TO THE SITES

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INTRODUCTORY LETTER TO THE SITES

MICHIGAN STATE UNIVERSITY
COLLEGE OF NURSING

Carol J. Garlinghouse, R.N.
4583 E. St. Joseph
Grand Ledge, MI 48837

October 1, 1981

Dear _____:

I am a Registered Nurse presently completing requirements for a Master's Degree in Nursing at Michigan State University. My special area of interest is health care for ambulatory older adults, focusing on health maintenance, health promotion, and prevention of illness and disease. During the past year I have been providing these services to residents at a local senior citizen housing unit.

I am currently conducting a survey of groups of older adults in the Lansing Area for the purpose of identifying their perceptions of their personal health needs, the activities they perform to maintain their health, and the amount of assistance they expect to receive from the health care system as it exists today. In addition to supplying data for my master's thesis, I will use the information obtained to plan care for older adult individuals and groups within the local population when I establish my practice in the future.

I have developed a questionnaire by which I may obtain the information and now need volunteers from the older adult population in the community who would be willing to participate in the study. I will administer the questionnaire to each group personally and the information obtained will be totally anonymous as I do not ask for any identifying data from the individual participant. I would like to obtain volunteers from your setting, but need your permission and assistance to do so.

I will be contacting you by telephone for an appointment within the next two weeks to explain my study further, give you the opportunity to review my questionnaire, and explore the possibility of using your setting as a part of my research project. If you wish to contact me before then, I may be reached at the above address or by telephone (627-9232). Thank you very much for your time.

Sincerely,

Carol J. Garlinghouse, R.N., B.S.N.
Family Nurse Clinician Student

CJG?so

APPENDIX B

INSTRUMENT

APPENDIX B

INSTRUMENT

Dear Participant:

I am a Registered Nurse presently completing requirements for a Master's Degree in Nursing from Michigan State University. I have a commitment to try to improve health care services to older adults, especially in the areas of health maintenance and prevention of illness and disease. I am conducting a study in the Lansing area which has as its goal the determining of the adequacy of our local health care system in providing these services to you. As part of this study I must first determine what your present health needs are, what kinds of activities you do to maintain your health, and what help you expect to receive from health care providers.

By completing this questionnaire you have agreed to participate in this study with the possible result that the health care of older adults may be improved in the future. There are no right or wrong answers. I expect each person may have different answers depending on his or her personal experiences.

There are three parts to the questionnaire. The first part requests information about health problems you expect to experience as you grow older. The second part requests information about activities you presently do to stay healthy and overcome health problems. In the third part I have requested some additional information about you but do not want your name, address, phone number, or any other personal identification to connect you with a specific questionnaire. I have asked one question about your

general health. I realize that many of you may be taking medication and/or have one or more chronic conditions. By good health I mean that you continue to feel well despite any of these chronic conditions.

This questionnaire will take approximately one-half hour to complete. If, for any reason, you cannot or do not wish to complete the questionnaire please feel free to leave at any time.

Thank you for your help in this study.

Carol J. Garlinghouse, R.N., B.S.N.

Family Nurse Clinician Graduate Student

As people grow older, they sometimes have problems and complaints. In addition, people differ widely in the help they expect health care providers (for example: physicians, nurses, or social workers) to give them with these problems. Sometimes persons who help most often are not health care providers. I would like to know what kind of problems you expect to experience as you grow older (you may have experienced some already) and if you expect health care providers to help you with them. I would also like to know if you expect help from persons other than health care providers. On the next few pages are a listing of problems and complaints that some persons expect to experience as they grow older.

INSTRUCTIONS:

1. Read each item on the list carefully. Decide if you expect to experience the problem as you grow older.
2. On the left hand side of the page put a circle around the number that best describes the extent to which you agree or disagree that you will experience the problem (use the key at the top of the column).
3. Decide if you expect any health care provider to help you with the problem.
4. To the right of the described problem, put a circle around the number that best describes the extent to which you agree or disagree that you expect health care providers to help you

with the problem (use the key at the top of the column).

5. If you expect to experience the problem and do expect help with the problem, write the initial (using the key at the top of that column) of the person most likely to help you in the blank at the far right side of the page.
6. If you STRONGLY DISAGREE that you will experience the problem, circle NUMBER 5 in the left hand column to indicate that you definitely do not expect to experience the problem and do not circle any number or write in any initial to the right of the described problem.

An example follows on the next page.

AS I GROW OLDER I
EXPECT TO EXPERIENCE:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

I EXPECT HEALTH CARE
PROVIDERS TO HELP ME
WITH THIS:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

THE PERSON MOST
LIKELY TO HELP IS:

- P. Physician
- N. Nurse
- S. Social Worker
- R. Relative or friend
- M. Myself
- O. Other
- NO. No One

EXAMPLE 1.

1 2 3 ④ 5

BACKACHE

1 ② 3 4 5

P

EXPLANATION: By circling NUMBER 4 in the left hand column the person indicates they disagree with the statement "As I grow older I expect to experience 'BACKACHE.'" By circling NUMBER 2 in the column to the right of the listed problem "BACKACHE," the person indicates that if the problem should occur, they would expect a health care provider to help them with the "BACKACHE." By inserting the initial "P" in the blank at the far right, the person indicates that the Physician is most likely to help them with the "BACKACHE."

2
5
8

EXAMPLE 2.

1 ② 3 4 5

BACKACHE

1 2 3 ④ 5

R

EXPLANATION: By circling NUMBER 2 at the far left the person indicates they agree they will probably experience "BACKACHE" as they grow older (or may have already experienced it). The circle around NUMBER 4 to the right of the problem "BACKACHE" indicates they do not expect help from a health care provider. By inserting the initial "R" at the far right they indicate that a relative or friend is most likely to help them with the "BACKACHE" when it occurs.

For each of the listed problems below, please indicate YOUR expectations in all three columns.

AS I GROW OLDER I
EXPECT TO EXPERIENCE:

I EXPECT HEALTH CARE
PROVIDERS TO HELP ME
WITH THIS:

THE PERSON MOST
LIKELY TO HELP IS:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

- P. Physician
N. Nurse
S. Social Worker
R. Relative or friend
M. Myself
O. Other
NO. No One

1 2 3 4 5	PAIN AND STIFFNESS IN MY JOINTS	1 2 3 4 5	_____
1 2 3 4 5	A NEED TO CHANGE MY DIET	1 2 3 4 5	_____
1 2 3 4 5	SHORTNESS OF BREATH	1 2 3 4 5	_____
1 2 3 4 5	CONSTIPATION	1 2 3 4 5	_____
1 2 3 4 5	A NEED TO URINATE MORE OFTEN	1 2 3 4 5	_____
1 2 3 4 5	INABILITY TO HOLD MY URINE	1 2 3 4 5	_____
1 2 3 4 5	COLD HANDS AND FEET	1 2 3 4 5	_____
1 2 3 4 5	NUMBNESS OF MY HANDS AND/OR FEET	1 2 3 4 5	_____
1 2 3 4 5	SWELLING OF MY HANDS AND/OR FEET	1 2 3 4 5	_____
1 2 3 4 5	INCREASING DEAFNESS	1 2 3 4 5	_____

For each of the listed problems below, please indicate YOUR expectations in all three columns.

<u>AS I GROW OLDER I</u>					<u>I EXPECT HEALTH CARE</u>					<u>THE PERSON MOST</u>						
<u>EXPECT TO EXPERIENCE:</u>					<u>PROVIDERS TO HELP ME</u>					<u>LIKELY TO HELP IS:</u>						
					<u>WITH THIS:</u>											
1. Strongly Agree	2. Agree	3. Undecided	4. Disagree	5. Strongly Disagree	1. Strongly Agree	2. Agree	3. Undecided	4. Disagree	5. Strongly Disagree	P. Physician	N. Nurse	S. Social Worker	R. Relative or friend	M. Myself	O. Other	NO. No One
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	A CHANGE IN MY ABILITY TO SMELL ODORS	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	VISUAL CHANGES	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	LOSS OF BALANCE	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	DAYTIME TIREDNESS	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	DIFFICULTY CHEWING	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	DENTURE PROBLEMS	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	DIFFICULTY SLEEPING	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	POSSIBLE DIFFICULTY PAYING FOR FOOD	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	POSSIBLE DIFFICULTY PAYING FOR HOUSING	1	2	3	4	5						
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	POSSIBLE DIFFICULTY IN ABILITY TO PURCHASE DESIRED CLOTHING	1	2	3	4	5						

For each of the listed problems below, please indicate YOUR expectations in all three columns.

AS I GROW OLDER I EXPECT TO EXPERIENCE:		I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	THE PERSON MOST LIKELY TO HELP IS:
		1. Strongly Agree 2. Agree 3. Undecided 4. Disagree 5. Strongly Disagree	P. Physician N. Nurse S. Social Worker R. Relative or friend M. Myself O. Other NO. No One
1 2 3 4 5	POSSIBLE DIFFICULTY PAYING FOR HEALTH CARE SERVICES	1 2 3 4 5	_____
1 2 3 4 5	POSSIBLE DIFFICULTY PAYING UTILITY BILLS	1 2 3 4 5	_____
1 2 3 4 5	POSSIBLE DIFFICULTY PAYING FOR SOCIAL ACTIVITIES	1 2 3 4 5	_____
1 2 3 4 5	INCREASED DIFFICULTY DOING HOUSEHOLD TASKS	1 2 3 4 5	_____
1 2 3 4 5	CHANGES IN MY DAILY ROUTINES	1 2 3 4 5	_____
1 2 3 4 5	CHANGES IN SEXUAL AND MARITAL RELATIONS	1 2 3 4 5	_____
1 2 3 4 5	INCREASED NEED FOR FAMILY CLOSENESS	1 2 3 4 5	_____
1 2 3 4 5	CHANGES IN SOCIAL ACTIVITIES	1 2 3 4 5	_____
1 2 3 4 5	CHANGES IN WORK ACTIVITIES	1 2 3 4 5	_____
1 2 3 4 5	DESIRE TO REMINISC	1 2 3 4 5	_____

As they grow older, some persons engage in specific activities in an effort to maintain their health and prevent or overcome any health problems that arise. Some people feel certain activities help a great deal while other persons feel they are not necessary for their own well-being. Some persons expect assistance with these activities. This assistance might be in the manner of information, encouragement, and/or actual performance of the activity. In this next part of the questionnaire I would like to know what activities you engage in to maintain your health and overcome health problems and if you expect health care providers to help you with these activities. As before, I would also like to know if you expect help from persons other than health care providers. Below is a partial list of health activities some persons engage in to maintain their health and overcome problems

The instructions are the same as in the previous section. An example follows:

TO MAINTAIN MY HEALTH AND
OVERCOME HEALTH PROBLEMS I:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

I EXPECT HEALTH CARE
PROVIDERS TO HELP ME
WITH THIS:

1. Strongly Agree
2. Agree
3. Undecided
4. Disagree
5. Strongly Disagree

THE PERSON MOST
LIKELY TO HELP IS:

- P. Physician
N. Nurse
S. Social Worker
R. Relative or friend
M. Myself
O. Other
NO. No One

1 2 3 4 5

GET A "FLU" SHOT EVERY YEAR

1 2 3 4 5

N

EXPLANATION: The answers above indicate that this person usually gets a "FLU" SHOT each year, definitely expects health care providers to help get the "FLU" SHOT, and a Nurse is the person most likely to help them with this activity.

For each of the listed activities below, please indicate YOUR preferences in all three columns.

TO MAINTAIN MY HEALTH AND OVERCOME HEALTH PROBLEMS I:		I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	THE PERSON MOST LIKELY TO HELP IS:
1. Strongly Agree	2. Agree	1. Strongly Agree	P. Physician
3. Undecided	4. Disagree	2. Agree	N. Nurse
5. Strongly Disagree		3. Undecided	S. Social Worker
		4. Disagree	R. Relative or friend
		5. Strongly Disagree	M. Myself
			O. Other
			NO. No One
1 2 3 4 5	PARTICIPATE IN THE SENIOR CITIZEN NUTRITION PROGRAM IN MY AREA	1 2 3 4 5	_____
1 2 3 4 5	ATTEND THE FREE HEALTH SCREEN- ING PROGRAMS IN THE AREA	1 2 3 4 5	_____
1 2 3 4 5	HAVE SOMEONE WITH WHOM I CAN SHARE MY MOST INTIMATE THOUGHTS AND ACTIVITIES	1 2 3 4 5	_____
1 2 3 4 5	KEEP IN CLOSE CONTACT WITH MY RELATIVES	1 2 3 4 5	_____
1 2 3 4 5	MAKE EFFORTS TO ALWAYS LOOK MY BEST	1 2 3 4 5	_____
1 2 3 4 5	HAVE DEVELOPED WAYS TO REDUCE STRESS AND TENSION WHICH WORK FOR ME	1 2 3 4 5	_____
1 2 3 4 5	PARTICIPATE IN EDUCATIONAL PROGRAMS ABOUT THINGS THAT INTEREST ME	1 2 3 4 5	_____
1 2 3 4 5	FIND WAYS TO BE USEFUL TO OTHERS	1 2 3 4 5	_____
1 2 3 4 5	SEEK ADVICE WHEN I AM UPSET ABOUT SOMETHING	1 2 3 4 5	_____

The following information, while not absolutely necessary for this study, would help me understand which groups of persons have similar expectations and engage in similar activities. If you do not wish to answer some of the questions feel free to leave them blank.

1. How old are you? (WRITE IN) _____
2. What is your sex? (CHECK ONE)

☐ Male
☐ Female
3. What is your marital status? (CHECK ONE)

☐ Married
☐ Single, Never married
☐ Separated
☐ Divorced
☐ Widowed
4. What was the first language you learned as a child; the language spoken in your home by your parents? (CHECK ONE)

☐ English
☐ Other

 What language? (WRITE IN) _____
5. What is your occupational status? (CHECK ONE)

☐ Working at a regular job outside the home for money
☐ Housewife
☐ Other (WRITE IN)
☐ Retired

 How long have you been retired? (WRITE IN) _____

6. Where do you live? (CHECK ONE)
- ___ One-family house
 ___ Owned
 ___ Rented
- ___ Two-family house
 ___ Owned
 ___ Rented
- ___ Apartment
___ Rented Room
7. With whom do you live? (CHECK ONE)
- ___ Live alone
- ___ Spouse (husband or wife)
- ___ Spouse and child (or children)
- ___ Child (or children)
- ___ Relatives (for example: brother, sister, or cousins)
- ___ Non-relatives (for example friends)
8. Taking all sources of money into consideration, what was your family's total income for 1980 before taxes? (CHECK ONE)
- ___ Less than \$5,000
- ___ \$5,000 to \$9,999
- ___ \$10,000 to \$14,999
- ___ \$15,000 or more

9. Do you feel you are generally in good health? (CHECK ONE)
___ Yes
___ No
10. Do you have a regular doctor you try to see first if you get sick? (CHECK ONE)
___ Yes
___ No
11. Have you had a physical checkup within the last year? (CHECK ONE)
___ Yes
___ No
12. Other than for a physical checkup, how many times have you been to a doctor or a health clinic during the last 12 months? (CHECK ONE)
___ Never
___ One time
___ Two or three times
___ Four or five times
___ Six or more times

This is the end of the questionnaire. Thank you so much for your time and effort.

APPENDIX C
INFORMATIONAL PACKET

APPENDIX C
INFORMATIONAL PACKET

I realize that many of you may have questions as a result of taking this questionnaire. In an effort to answer some of these questions I have prepared this brief explanation of some of the problems and activities discussed in the questionnaire. Though some of the problems frequently occur as a result of the aging process and NOT disease, each person is an individual and will experience different problems. Some persons never experience any of the mentioned problems and many persons do not have problems until they reach a very old age. All of the problems mentioned are treatable.

PAIN AND STIFFNESS IN JOINTS is a common problem and a result of the lifetime wear and tear they have been subjected to. Alternating periods of rest and exercise usually helps as does application of heat to the affected area. There are medications which can be used if the problem becomes severe.

As a person grows older they still need a balanced DIET but do not need as many calories. Your nurse or physician can advise you if your diet is adequate and help you decide how many calories you need.

Changes do occur in each of the FIVE SENSES, though they occur slowly. Any sudden changes are not to be expected.

With later old age it may become DIFFICULT TO CHEW food due to a decrease in muscle strength of the jaw and the fact that teeth surfaces lose their cutting edges. Cutting your food into smaller pieces usually solves the problem. DENTURES should never be a problem. They may need realignment periodically as the shape of the face changes with the aging process.

DAYTIME TIREDNESS, not exhaustion, is common. Take that daytime nap you were never able to do in your younger years! Many persons have a particular television program they enjoy during the afternoon and they watch it while resting.

With inflation such as we have today it may become increasingly difficult AFFORDING TO BUY food, housing, clothing, health care services, utilities, as well as paying for social activities and maintaining the home. Many assistance programs are presently available but they are uncoordinated and confusing. One of the functions of a social worker is to help persons figure out which program would best meet their needs. The Tri-County Office of Aging can help put you in touch with someone to help you.

DAILY ROUTINES may need to be changed as aging progresses. If that seems difficult many professional nurses can help you plan a better schedule. For example, it is not necessary to take a complete bath or shower every day (in fact, daily baths may create dry skin!).

There may be changes in SEXUAL AND MARITAL RELATIONS but the need for love and affection never ceases. This is a subject some health-care professionals do not feel comfortable discussing but there are many who are knowledgeable, warm and understanding. Do not be afraid to bring up the subject if this becomes a problem. If they become uncomfortable ask them for another source of counseling.

REMEMBERING THE PAST is fun and necessary. Find someone to share your memories with. Some persons who live far away from loved ones put their remembrances on a tape recording for their children and grandchildren to enjoy.

It is sometimes difficult to follow a prescribed MEDICATION schedule. Talk it over with a nurse. The professional nurse should be able to help you figure out a way to follow the Doctor's orders. You should also know how to tell if the medicine you take is working.

Some degree of FORGETFULNESS is expected. Usually it's the little things that happen every day that are forgotten while memories of the past are no problem. Making check-lists sometimes helps.

Older persons should have POSITIVE FEELINGS about themselves. They do not lose their ABILITY TO LEARN and many find time after retirement to learn new knowledge and skills they have always wanted to learn.

The following problems are not to be expected as a result of the aging process:

SHORTNESS OF BREATH	COLD HANDS AND/OR FEET
CONSTIPATION	NUMBNESS OF HANDS AND/
NEED TO URINATE MORE	OR FEET
OFTEN	INABILITY TO HOLD URINE
SWELLING OF HANDS AND/	DIFFICULTY SLEEPING
OR FEET	DIFFICULTY MAKING
FEELINGS OF USELESSNESS	DECISIONS
DIFFICULTY THINKING	
THROUGH PROBLEMS	

If any of these problems occur, assistance should be sought.

In the Lansing area the following agencies may help you find assistance:

INGHAM COUNTY MEDICAL or OSTEOPATHIC SOCIETY -
Physician services

TRI-COUNTY OFFICE ON AGING - Many services (Home-bound meals, energy assistance, extensive information and referral)

GREATER LANSING VISITING NURSE SERVICE - Home nursing care, physical therapy, social service, speech therapy.

INGHAM COUNTY DEPARTMENT OF SOCIAL SERVICE - financial assistance, social services, housing assistance (landlord-tenant problems, heating assistance, relocation assistance).

CATHOLIC SOCIAL SERVICES - counseling and referral

APPENDIX D

HUMAN SUBJECTS REVIEW COMMITTEE APPLICATION

APPENDIX D

MICHIGAN STATE UNIVERSITY
SCHOOL OF NURSINGHUMAN SUBJECTS REVIEW COMMITTEE APPLICATION*

Date form completed: _____

I. Principal Investigator

Name: Carol J. GarlinghouseAddress: 4583 E. St. Joseph Grand Ledge, MI 48837Phone: home 627-9232 office _____Position/Title: Graduate StudentQualifications: Completed required courses for degree of
Master of Science, December, 1980.Names and Qualifications of Associates: NoneII. Names and qualifications of other persons responsible
for performing or supervising procedures: _____Dr. Barbara Given, Assistant Director Graduate Nursing ProgramBrigid Warren, Instructor, Graduate Nursing ProgramSr. Mary Honora Kroger, Ph.D., Community Health SciencesJoAnn Westrick, Instructor, Graduate Nursing ProgramIII. Title of proposal or activity: "The Perceived Health Needs and
Stated Health Activities of Older Adults and their Expecta-
tions of Assistance from Health Care Providers: A
Correlational Study."*For further information and clarification, please refer to the Human
Subjects Review Committee "Policies and Procedures Guidelines."

- IV. Beginning date of proposed activity: January, 1981
- V. Anticipated completion date: June, 1981
- VI. Is this activity related to a grant or contract? Yes ☐ No ☒.

If yes, complete A-1.

- A. Is it related to a training grant? Yes ☐ No ☐
- B. Is it related to a fellowship? Yes ☐ No ☐
- C. Has proposal been submitted? Yes ☐ No ☐
- D. Has award been made? Yes ☐ No ☐
- E. Name of Principal Investigator shown
(or to be shown) on proposal: _____
- F. Name of agency to which proposal was
(or will be) submitted: _____
- G. If continuation (or already awarded),
what is the agency's grant or
contract number? _____
- H. Inclusive dates of grant or contract?
From _____, through _____
- I. Will activity be performed if funding
is not received? Yes ☐ No ☐

VII. Checklist to be completed by investigator:

- A. Will another organization or agency be
involved (hospitals, Department of
Public Health, others)? Yes ☒ No ☐

Washington Square Residential Center
Somerset Residential Center
Serenity Place Residential Center
Plymouth Congregational Church Senior Group
Other senior groups to be contacted.

Name and titles of person(s) in agency
from whom permission to do study must
be obtained:

William Morris, Lansing Housing Commission
Dr. Robert Williams, Minister

- B. Will an investigational new drug (IND)
be used? Yes ☐ No ☒
If yes, name, proposed dosage, status
with Food and Drug Administration and
IND number. Enclose one copy of
available toxicity data.

C. Will other drugs be used? If yes, names and dosages. Yes ☐ No ☒

D. Will a written consent form(s) be used? (Required in most cases.) Yes ☐ No ☒

1. If no, explain why a written consent form will not be used.

Older Adults are reluctant to sign their names to any form. The purpose of the study will be explained to prospective participants ahead of the date of administration. Attached to the questionnaire will be a letter explaining that by completing the questionnaire, the participant has agreed to participate in the study and that they are free to leave at any time whether or not the questionnaire is completed. (See attached questionnaire.)

2. If no, is a statement attached describing what participants will be told? Participants must be informed of all elements of VII-E below. Yes ☒ No ☐

A written script of the verbal explanation must be attached to this request.

E. Does (Do) the consent form(s) include:

"Michigan State University" heading? Yes ☒ No ☐

Name, position, department and telephone number of investigator? Yes ☒ No ☐

Project Title? Yes ☐ No ☒

Date? Yes ☐ No ☒

Copy for subject? Yes ☐ No ☒

Signature and date lines to be completed by subject (and legal guardian, if subject is a minor or is legally incompetent), and investigator? Yes ☐ No ☒

The following elements of consent expressed in lay terms:

Purpose—benefits to be expected or knowledge hoped to be gained? Yes ☒ No ☐

Procedures to be followed only for the purpose of this activity, and time involved? Yes ☒ No ☐

Identification of the procedures that are experimental? Yes ☐ No None

Nature and amount of risk, or substantial stress or discomfort involved? Yes X No ☐

Appropriate alternate procedures that might be advantageous or available to subject? (Show N/A, not applicable, when there are none.) Yes ☐ No NA

Costs the subject may immediately or ultimately be forced to bear and what reimbursement of costs or other compensation the subject will receive as the result of participation in this activity? Yes ☐ No X

Voluntary nature of participation and freedom to withdraw at any point without penalty? Yes X No ☐

Opportunity to ask questions at any time? Yes ☐ No X

Assurance that subject's identity will remain confidential? Yes X No ☐

Please follow the consent form guideline attached to this application form.

F. Describe how, by whom, and where consent will be obtained.

Consent will be obtained at the time of administration of the instrument by the principal investigator as evidenced by completion of the questionnaire.

Consent will be obtained from the administrator of the agency and/or senior group prior to date of administration by the principal investigator.

VIII. Subjects

A. Criteria for selection (include sample size and age group). 50-100 subjects

1. Age--65 years and older.
2. Stated "yes" to question "Do you feel you are generally in good health?"
3. Presence at designated location for administration of questionnaire at designated time.
4. Ability to read questionnaire.
5. Use English as their primary language.
6. Be ambulatory and residing in independent living quarters.
7. Completion of the questionnaire.

- B. Source of subjects (including patients), and how they will be approached.

Subjects will be selected from residential centers and senior citizen groups from Lansing area churches after consent has been obtained from the appropriate authority (manager, director, clergyman, leader). This person will address prospective participants about the purpose of the study, the requirements for participation, types of questions to be asked, anonymity of answers, length of time to complete the instrument, and the date, time and location of administration.

- C. Will subjects be paid or otherwise compensated? No
If so, what amount? _____ If not, how might the subject benefit?

After completion of questionnaire, the subjects may pick up an information packet consisting of explanations of the various health needs, activities, and services available for older adults.

- D. Location where procedures will be carried out, e.g., patient's bedside, conference room, etc.

Location to be designated by the appropriate authority; probably community rooms of residential centers and churches.

IX. Confidentiality and Anonymity

- A. Steps to ensure that participation by subject will be kept confidential.

No personal identification data will be obtained from any individual participant in this study nor will any numbers be assigned to the questionnaires. The completed instrument will be placed by the participant in a common container with no handling by the researcher until she has left the premises.

- B. Provisions to ensure anonymity of documents and data (include provisions for control over access to documents and data).

No means of identification with individual participants on instrument. Data accessible only to researcher and Thesis Committee. Data will be stored in metal file cabinet in researcher's home.

- X. What publications might be helpful to the committee in consideration of this application? (Answer only if these might expedite review.)

XI. Outline of Activity.

Provide answers in spaces following A-D below (add sheets, when needed).

- A. Discuss other methods of data collection and reason for rejection. (i.e., Is there another method for collecting data which would put the subject at less risk? If so, why was it rejected?)

The instrument could have been distributed by the person from whom agency consent was obtained, filled out by the participant in his/her home, and mailed to researcher or returned to setting office. This method was rejected as it would increase the possibility of intervening variables affecting the data. It might also allow for coercion by the agency person distributing and/or collecting the instrument. Participants could have been approached individually but this would have greatly increased the time of the study as well as the risk of identification with a particular response.

- B. If any deception (withholding complete information) is required for the validity of this activity, explain why this is necessary. Describe the procedure for debriefing.

No deception is required. Each participant will be offered an information packet at the time of completion of the instrument containing explanations of question in the instrument, i.e.:

Pain and stiffness of joints due to degenerative joint disease is a result of the aging changes in the joints. Obesity can make it worse. Regular exercise with frequent rest periods help reduce the pain and stiffness. Medications are available if the pain becomes severe.

- C. Potential significance of the results (i.e., to patients, society, nursing).

The results will begin to describe how accurately healthy older adults' perceive their changing health needs as aging progresses, how effective they perceive certain health activities are in maintaining their health, and how adequate they perceive the health care system to be in providing assistance. Any agency serving older adults can use the results to plan health care programs so as to increase awareness of changing health needs, benefits of health activities, and assist older adults to more effectively utilize the health care system. Any nurse caring for older adults can use the results to improve self-care capabilities among her client caseload.

- D. Nature and degree of risk (stress, discomfort, side effects). Risk refers to all risks--physical, psychological, social, legal, etc.

There are no physical risks. Any participant can leave at any time. Administration of the instrument in a group setting in a familiar non-threatening environment should keep any psychological stress at a minimum.

1. Possible adverse effects. Include an assessment of the likelihood and seriousness of such effects or risks.

There should be no adverse effects.

2. What safety precautions or counter-measures are planned to minimize risks in order to protect the rights and welfare of the individuals?

Participants can leave at any time for any reason during administration of the questionnaire. The informational packet is designed to provide an explanation as to the normalcy of each item on the instrument. The researcher will be available after administration to answer any questions participants may have.

3. Follow-up planned for procedures. Include debriefing statement.

No follow-up is planned other than the informational packet. Should any agency desire the results of the study it will be provided to them.

4. Arrangements for financial responsibility for adverse effects.

None

XII. If you are a graduate student, have you informed
your thesis committee that you are filing this
application?

Yes X No

Signature of Principal Investigator

Signature of Thesis Committee Member
Approving This Application Form

APPENDIX E
FREQUENCY DISTRIBUTIONS

Health Needs: Frequency Distributions

<u>AS I GROW OLDER I EXPECT TO EXPERIENCE:</u>	Total N	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%	N	%
PAIN AND STIFFNESS IN MY JOINTS	55	19	34.5	26	47.3	5	9.1	5	9.1		
A NEED TO CHANGE MY DIET	51	8	15.7	16	31.4	9	17.6	15	29.4	3	5.9
SHORINESS OF BREATH	56	11	19.6	22	39.3	9	16.1	10	17.9	4	7.1
CONSTIPATION	52	8	15.4	5	9.6	13	25	16	30.8	10	19.2
A NEED TO URINATE MORE OFTEN	52	5	9.6	19	36.5	8	15.4	18	34.6	2	3.8
INABILITY TO HOLD MY URINE	52	7	13.5	7	13.5	13	25	19	36.5	6	11.5
COLD HANDS AND FEET	54	14	25.9	18	33.3	9	16.7	8	14.8	5	9.3
NUMBNESS OF MY HANDS AND/OR FEET	52	6	11.5	15	28.8	11	21.2	16	30.8	4	7.7
SWELLING OF MY HANDS AND/OR FEET	52	8	15.4	14	26.9	9	17.3	14	26.9	7	13.5
INCREASING DEAFNESS	55	10	18.2	23	41.8	7	12.7	7	12.7	8	14.5
A CHANGE IN MY ABILITY TO SMELL ODORS	49			12	24.5	14	28.6	17	34.7	6	12.2
VISUAL CHANGES	52	19	36.5	22	42.3	6	11.5	3	5.8	2	3.8
LOSS OF BALANCE	52	3	5.8	18	34.6	16	30.8	10	19.2	5	9.6
DAYTIME TIREDNESS	53	9	17	28	52.8	7	13.2	6	11.3	3	5.7
DIFFICULTY CHEWING	51	5	9.8	13	25.5	9	17.6	15	29.4	9	17.6
DENTURE PROBLEMS	50	11	22	23	46	5	10	5	10	6	12
DIFFICULTY SLEEPING	51	7	13.7	13	25.5	11	21.6	15	29.4	5	9.8
POSSIBLE DIFFICULTY PAYING FOR FOOD	51	1	2	6	11.8	7	13.7	21	41.2	16	31.4

AS I GROW OLDER I EXPECT TO EXPERIENCE:	Total N	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%	N	%
POSSIBLE DIFFICULTY PAYING FOR HOUSING	51	1	2	4	7.8	9	17.6	18	35.3	19	37.3
POSSIBLE DIFFICULTY IN ABILITY TO PURCHASE DESIRED CLOTHING	51	3	5.9	5	9.8	9	17.6	20	39.2	14	27.5
POSSIBLE DIFFICULTY PAYING FOR HEALTH CARE SERVICES	53	8	15.1	7	13.2	13	24.5	14	26.4	11	20.8
POSSIBLE DIFFICULTY PAYING UTILITY BILLS	52	2	3.8	7	13.5	10	19.2	18	34.6	15	28.8
POSSIBLE DIFFICULTY PAYING FOR SOCIAL ACTIVITIES	52	4	7.7	7	13.5	9	17.3	18	34.6	14	26.9
INCREASED DIFFICULTY DOING HOUSEHOLD TASKS	55	10	18.2	29	52.7	9	16.4	5	9.1	2	3.6
CHANGES IN MY DAILY ROUTINES	50	7	14	27	54	8	16	3	6	5	10
CHANGES IN SEXUAL AND MARITAL RELATIONS	45	8	17.8	15	33.3	7	15.6	7	15.6	8	17.8
INCREASED NEED FOR FAMILY CLOSENESS	50	20	40	15	30	7	14	5	10	3	6
CHANGES IN SOCIAL ACTIVITIES	52	8	15.4	28	53.8	8	15.4	6	11.5	2	3.8
CHANGES IN WORK ACTIVITIES	53	12	22.6	30	56.6	5	9.4	3	5.7	3	5.7
DESIRE TO REMINISCE	47	16	34	19	40.4	4	8.5	4	8.5	4	8.5
DIFFICULTY IN FOLLOWING ANY PRESCRIBED MEDICATION SCHEDULE	51	2	3.9	10	19.6	8	15.7	24	47.1	7	13.7
POSITIVE FEELINGS ABOUT MYSELF	51	9	17.6	25	49	14	27.5	2	3.9	1	2
CONFIDENCE IN MY ABILITY TO COPE WITH MOST SITUATIONS	51	8	15.7	28	54.9	11	21.6	3	5.9	1	2

AS I GROW OLDER I EXPECT TO EXPERIENCE:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
CONFIDENCE I CAN DO THINGS AS WELL AS MOST OTHERS MY AGE	54		13	24.1	37	68.5	1	1.9	2	3.7	1	1.9
FEELINGS OF USELESSNESS	50		2	4	6	12	10	20	12	24	20	40
SOME DEGREE OF FORGETFULNESS	52		5	9.6	25	48.1	11	21.2	3	5.8	8	15.4
A DECREASE IN MY ABILITY TO LEARN NEW THINGS	51		6	11.8	12	23.5	4	7.8	15	29.4	14	27.5
DIFFICULTY MAKING UP MY MIND	52		1	1.9	8	15.4	12	23.1	14	26.9	17	32.7
DIFFICULTY THINKING THROUGH PROBLEMS	52		2	3.8	8	15.4	9	17.3	16	30.8	17	32.7

Health Activities: Frequency Distributions

TO MAINTAIN MY HEALTH AND OVERCOME HEALTH PROBLEMS I:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
EXERCISE DAILY	52		10	19.2	34	65.4	4	7.7	4	7.7		
CONTROL MY WEIGHT	53		11	20.8	39	73.6			3	5.7		
EAT FRESH FRUITS AND VEGETABLES	55		22	40	28	50.9	3	5.5	2	3.6		
DO NOT SMOKE	50		30	60	9	18			6	12	5	10
LIMIT ALCOHOLIC AND CAFFEINATED BEVERAGES	51		25	49	20	39.2	1	2	1	2	4	7.8
SEE MY DENTIST EVERY YEAR	50		21	42	21	42	3	6	3	6	2	4
HAVE A COMPLETE PHYSICAL EXAM YEAR- LY INCLUDING VISION AND HEARING	52		18	34.6	27	51.9	6	11.5	1	1.9		
SCHEDULE REST PERIODS DURING THE DAY	53		15	28.3	14	45.3	5	9.4	7	13.2	2	3.8
GET 6-8 HOURS OF UNINTERRUPTED SLEEP EACH NIGHT	55		14	25.5	21	38.2	8	14.5	8	14.5	4	7.3
DRINK AT LEAST 6-8 GLASSES OF FLUID A DAY	52		17	32.7	19	36.5	11	21.2	5	9.6		
SEEK HEALTH CARE SERVICES WHEN I FEEL ILL	53		25	47.2	22	41.5	2	3.8	4	7.5		
KNOW WHAT EACH MEDICATION I TAKE IS SUPPOSED TO DO FOR ME	53		27	50.9	23	43.4	2	3.8	1	1.9		
KNOW HOW TO TELL IF EACH MEDICINE IS WORKING PROPERLY	51		16	31.4	26	51	7	13.7	1	2	1	2
HAVE A HOBBY I ENJOY	51		24	47.1	20	39.2	4	7.8	2	3.9	1	2
HAVE SOMEONE TO SHARE MEMORIES WITH	50		20	40	28	56			2	4		

TO MAINTAIN MY HEALTH AND OVERCOME HEALTH PROBLEMS I:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
REGULARLY ENJOY SOCIAL ACTIVITIES WITH FRIENDS AND/OR RELATIVES	53		29	54.7	24	45.3						
USE MEDICARE TO PAY FOR HEALTH CARE SERVICES	52		25	48.1	23	44.2	3	5.4			1	1.8
WOULD USE MEDICAID TO HELP PAY FOR HEALTH CARE SERVICES IF NECESSARY	48		15	31.3	21	43.8	7	14.6	1	2.1	4	8.3
PARTICIPATE IN THE SENIOR CITIZEN NUTRITION PROGRAM IN MY AREA	52		20	38.5	15	28.8	9	17.3	5	9.6	3	5.8
ATTEND THE FREE HEALTH SCREENING PROGRAMS IN THE AREA	51		8	15.7	23	45.1	10	19.6	7	13.7	3	5.9
HAVE SOMEONE WITH WHOM I CAN SHARE MY MOST INTIMATE THOUGHTS AND ACTIVITIES	53		18	34	26	49.1	5	9.4	3	5.7	1	1.9
KEEP IN CLOSE CONTACT WITH MY RELATIVES	55		29	52.7	24	43.6	1	1.8	1	1.8		
MAKE EFFORTS TO ALWAYS LOOK MY BEST	55		22	40	28	50.9	5	9.1				
HAVE DEVELOPED WAYS TO REDUCE STRESS AND TENSION WHICH WORK FOR ME	51		9	17.6	30	58.8	10	19.6	2	3.9		
PARTICIPATE IN EDUCATIONAL PRO- GRAMS ABOUT THINGS THAT INTEREST ME	52		10	19.2	29	55.8	7	13.5	6	11.5		
FIND WAYS TO BE USEFUL TO OTHERS	53		22	41.5	30	56.6	1	1.8				
SEEK ADVICE WHEN I AM UPSET ABOUT SOMETHING	52		8	15.4	32	61.5	6	11.5	6	11.5		

Expected Assistance with Health Needs: Frequency Distributions

I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
PAIN AND STIFFNESS IN MY JOINTS	49		7	14.3	23	46.9	9	18.4	5	10.2	5	10.2
A NEED TO CHANGE MY DIET	48		1	2.1	15	31.3	10	20.8	15	31.3	7	14.6
SHORTNESS OF BREATH	47		6	12.8	14	29.8	9	19.1	11	23.4	7	14.9
CONSTIPATION	45		2	4.4	7	15.6	11	24.4	5	33.3	10	22.2
A NEED TO URINATE MORE OFTEN	47		4	8.5	6	12.8	12	25.5	20	42.6	5	10.6
INABILITY TO HOLD MY URINE	47		4	8.5	9	19.1	11	23.4	14	29.8	9	19.1
COLD HANDS AND FEET	49		3	6.1	7	14.3	14	28.6	18	36.7	7	14.7
NUMBNESS OF MY HANDS AND/OR FEET	46		3	6.5	11	23.9	10	21.7	16	34.8	6	13
SWELLING OF MY HANDS AND/OR FEET	46		4	8.7	16	34.8	6	13	13	28.3	7	15.2
INCREASING DEAFNESS	49		10	20.4	17	34.7	7	14.3	9	18.4	6	12.2
A CHANGE IN MY ABILITY TO SMELL ODORS	46		1	2.2	7	15.2	13	28.3	17	37	8	17.4
VISUAL CHANGES	47		14	29.8	18	38.3	7	14.9	3	6.4	5	10.6
LOSS OF BALANCE	46				18	39.1	12	26.1	10	21.7	6	13
DAYTIME TIREDNESS	46		2	4.3	11	23.9	7	15.2	14	37	9	19.6
DIFFICULTY CHEWING	44		6	13.6	9	20.5	6	13.6	15	34.1	8	18.2
DENIURE PROBLEMS	45		11	24.4	22	48.9	2	4.4	6	13.3	4	8.9
DIFFICULTY SLEEPING	42				7	16.7	11	26.2	14	33.3	10	23.8
POSSIBLE DIFFICULTY PAYING FOR FOOD	44		1	2.3	4	9.1	3	6.8	16	36.4	20	45.5

I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
POSSIBLE DIFFICULTY PAYING FOR HOUSING	42		2	4.8	2	4.8	2	4.8	12	28.6	24	57.1
POSSIBLE DIFFICULTY IN ABILITY TO PURCHASE DESIRED CLOTHING	44		2	4.5	1	2.3	4	9.1	17	38.6	20	45.5
POSSIBLE DIFFICULTY PAYING FOR HEALTH CARE SERVICES	49		1	2.0	6	12.2	11	22.4	17	34.7	4	28.6
POSSIBLE DIFFICULTY PAYING UTILITY BILLS	48		1	2.1	5	10.4	7	14.6	16	33.8	19	39.6
POSSIBLE DIFFICULTY PAYING FOR SOCIAL ACTIVITIES	47		1	2.1	1	2.1	7	14.9	16	34.0	22	46.8
INCREASED DIFFICULTY DOING HOUSEHOLD TASKS	49		4	8.2	7	14.3	11	20.4	16	32.7	11	22.4
CHANGES IN MY DAILY ROUTINES	45		2	4.4	5	11.1	8	17.8	15	33.3	15	33.3
CHANGES IN SEXUAL AND MARITAL RELATIONS	41		1	2.4	4	9.8	4	9.8	16	39	16	39
INCREASED NEED FOR FAMILY CLOSENESS	45		4	8.9	4	8.9	5	11.1	13	28.9	19	42.2
CHANGES IN SOCIAL ACTIVITIES	46		3	6.5	7	15.2	7	15.2	12	26.1	17	37
CHANGES IN WORK ACTIVITIES	46		3	6.5	9	19.6	4	8.7	13	28.3	17	37
DESIRE TO REMINISCE	43				5	11.6	5	11.6	14	32.6	19	44.2
DIFFICULTY IN FOLLOWING ANY PRESCRIBED MEDICATION SCHEDULE	47		1	2.1	17	36.2	4	8.5	17	36.2	8	17
POSITIVE FEELINGS ABOUT MYSELF	46		1	2.2	8	17.4	10	21.7	16	34.8	11	23.9
CONFIDENCE IN MY ABILITY TO COPE WITH MOST SITUATIONS	44		1	2.3	7	15.9	14	31.8	11	25	11	25

I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
CONFIDENCE I CAN DO THINGS AS WELL AS MOST OTHERS MY AGE	44		3	6.8	11	25	5	11.4	12	27.3	13	29.5
FEELINGS OF USELESSNESS	46				2	4.3	8	17.4	16	34.8	20	43.5
SOME DEGREE OF FORGETFULNESS	44				8	18.2	9	20.5	13	29.5	14	31.8
A DECREASE IN MY ABILITY TO LEARN NEW THINGS	45		1	2.2	4	8.9	4	8.9	18	40	18	40
DIFFICULTY MAKING UP MY MIND	45				3	6.7	9	20	16	35.6	17	37.8
DIFFICULTY THINKING THROUGH PROBLEMS	45				5	11.1	6	13.3	18	40	16	35.6

Expected Assistance with Health Activities: Frequency Distributions

I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	Total		Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%	N	%
EXERCISE DAILY	47	2	4.3	9	19.1	6	12.8	20	42.6	10	21.3	
CONTROL MY WEIGHT	46	2	4.3	20	43.5	5	10.9	11	23.9	8	17.4	
EAT FRESH FRUITS AND VEGETABLES	45	6	13.3	4	8.9	4	8.9	19	42.2	12	26.7	
DO NOT SMOKE	41	3	7.3	4	9.8	3	7.3	14	34.1	17	41.5	
LIMIT ALCOHOLIC AND CAFFEINATED BEVERAGES	43	4	9.3	7	16.3	3	7	15	34.9	14	32.6	
SEE MY DENTIST EVERY YEAR	46	12	26.1	21	45.7	3	6.5	4	8.7	6	13.0	
HAVE A COMPLETE PHYSICAL EXAM YEAR- LY INCLUDING VISION AND HEARING	45	15	33.3	17	37.8	1	2.2	4	8.9	8	17.8	
SCHEDULE REST PERIODS DURING THE DAY	45	5	11.1	3	6.7	6	13.3	20	44.4	11	24.4	290
GET 6-8 HOURS OF UNINTERRUPTED SLEEP EACH NIGHT	45	5	11.1	3	6.7	12	26.7	13	28.9	12	26.7	
DRINK AT LEAST 6-8 GLASSES OF FLUID A DAY	42	4	9.5	3	7.1	8	19	20	47.6	7	16.7	
SEEK HEALTH CARE SERVICES WHEN I FEEL ILL	46	19	41.3	16	34.8	3	6.5	4	8.7	4	8.7	
KNOW WHAT EACH MEDICATION I TAKE IS SUPPOSED TO DO FOR ME	46	19	41.3	16	34.8	1	2.2	7	15.2	3	6.5	
KNOW HOW TO TELL IF EACH MEDICINE IS WORKING PROPERLY	43	13	30.2	20	46.5	2	4.7	6	14	2	4.7	
HAVE A HOBBY I ENJOY	43	5	11.6	3	7	6	14	15	34.9	14	32.6	
HAVE SOMEONE TO SHARE MEMORIES WITH	40	2	5	5	12.5	3	7.5	15	37.5	15	37.5	

I EXPECT HEALTH CARE PROVIDERS TO HELP ME WITH THIS:	Total N	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%	N	%
REGULARLY ENJOY SOCIAL ACTIVITIES WITH FRIENDS AND/OR RELATIVES	43	7	16.3	4	9.3	2	4.7	12	27.9	18	41.9
USE MEDICARE TO PAY FOR HEALTH CARE SERVICES	44	6	13.6	20	45.5	3	6.8	6	13.6	9	20.5
WOULD USE MEDICAID TO HELP PAY FOR HEALTH CARE SERVICES IF NECESSARY	45	4	8.9	20	44.4	8	17.8	5	11.1	8	17.8
PARTICIPATE IN THE SENIOR CITIZEN NUTRITION PROGRAM IN MY AREA	46	2	4.3	17	37	7	15.2	10	21.7	10	21.7
ATTEND THE FREE HEALTH SCREENING PROGRAMS IN THE AREA	45	2	4.4	20	44.4	8	17.8	9	20	6	13.3
HAVE SOMEONE WITH WHOM I CAN SHARE MY MOST INTIMATE THOUGHTS AND ACTIVITIES	43	4	9.3	3	7	6	14	16	37.2	14	32.6
KEEP IN CLOSE CONTACT WITH MY RELATIVES	44	6	13.6	2	4.5	4	9.1	11	25	21	47.7
MAKE EFFORTS TO ALWAYS LOOK MY BEST	44	4	9.1	3	6.8	6	13.6	15	34.1	16	36.4
HAVE DEVELOPED WAYS TO REDUCE STRESS AND TENSION WHICH WORK FOR ME	41	1	2.4	10	24.4	10	24.4	10	24.4	10	24.4
PARTICIPATE IN EDUCATIONAL PRO- GRAMS ABOUT THINGS THAT INTEREST ME	43	1	2.3	10	23.3	5	11.6	14	32.6	13	30.2
FIND WAYS TO BE USEFUL TO OTHERS	43	4	9.3	8	18.6	4	9.3	13	30.2	14	32.6
SEEK ADVICE WHEN I AM UPSET ABOUT SOMETHING	42	1	2.4	9	21.4	5	11.9	12	28.6	15	35.7

Persons Most Likely to Help: Frequency Distribution (Health Needs)

THE PERSON MOST LIKE- LY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
PAIN AND STIFFNESS IN MY JOINTS	52		39	75					3	5.8	8	15.4			2	3.8
A NEED TO CHANGE MY DIET	49		17	34.7	1	2.0	1	2.0	4	8.2	16	32.7			10	20.4
SHORTNESS OF BREATH	48		29	60.4							9	18.8			10	20.8
CONSTIPATION	48		16	33.3					1	2.1	17	35.4	1	2.1	13	27.1
A NEED TO URINATE MORE OFTEN	46		20	43.5							10	21.7			16	34.8
INABILITY TO HOLD MY URINE	45		19	42.2							9	20.0			17	37.8
COLD HANDS AND FEET	47		16	34	1	2.1					23	48.9			7	14.9
NUMBNESS OF MY HANDS AND/OR FEET	43		25	58.1							7	16.3	1	2.3	10	23.3
SWELLING OF MY HANDS AND/OR FEET	41		27	65.9							8	19.5			6	14.6
INCREASING DEAFNESS	44		36	81.8							3	6.8			5	11.4
A CHANGE IN MY ABILITY TO SMELL ODORS	43		16	37.2							7	16.3	1	2.3	19	44.2
VISUAL CHANGES	46		44	95.7											2	4.3
LOSS OF BALANCE	46		32	69.6					1	2.2	4	7.1	1	2.2	8	17.4
DAYTIME TIREDNESS	47		18	38.3					2	4.3	21	44.7			6	12.8
DIFFICULTY CHEWING	38		16	42.1							5	13.2	10	26.3	7	18.4
DENTURE PROBLEMS	44		26	59.1							2	4.5	15	34.1	1	2.3

THE PERSON MOST LIKELY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
DIFFICULTY SLEEPING	43	17	39.5						13	30.2	13	30.2			13	30.2
POSSIBLE DIFFICULTY PAYING FOR FOOD	42	1	2.4				4	9.5	5	11.9	18	42.9	1	2.4	13	31.0
POSSIBLE DIFFICULTY PAYING FOR HOUSING	40						2	5.0	7	17.5	15	37.5	2	5.0	14	35.0
POSSIBLE DIFFICULTY IN ABILITY TO PURCHASE DESIRED CLOTHING	41						3	7.3	9	22.0	13	31.7	2	4.9	14	34.1
POSSIBLE DIFFICULTY PAYING FOR HEALTH CARE SERVICES	46	2	4.3				7	15.2	11	23.9	13	28.3	5	10.9	8	17.4
POSSIBLE DIFFICULTY PAYING UTILITY BILLS	42						3	7.1	6	14.3	15	35.7	4	9.5	14	33.3
POSSIBLE DIFFICULTY PAYING FOR SOCIAL ACTIVITIES	41						2	4.9	8	19.5	13	31.7	3	7.3	15	36.6
INCREASED DIFFICULTY DOING HOUSEHOLD TASKS	47	2	4.3				8	17.0	15	31.9	15	31.9	5	10.6	2	4.3
CHANGES IN MY DAILY ROUTINES	40	2	5.0		1	2.5	1	2.5	6	15	22	55			8	20
CHANGES IN SEXUAL AND MARITAL RELATIONS	38	5	13.2				1	2.6	2	5.3	14	36.8	1	2.6	15	39.5
INCREASED NEED FOR FAMILY CLOSENESS	41								29	70.7	8	19.5			4	9.8
CHANGES IN SOCIAL ACTIVITIES	42						2	4.8	10	23.8	21	50	1	2.4	8	19
CHANGES IN WORK ACTIVITIES	40	1	2.5						2	5	29	72.5			8	20

THE PERSON MOST LIKELY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
DESIRE TO REMINISCE	39						1	2.6	22	56.4	8	20.5	1	2.6	7	17.9
DIFFICULTY IN FOLLOW- ING ANY PRESCRIBED MEDICATION SCHEDULE	44		21	47.7	3	6.8			4	9.1	11	25	1	2.3	4	9.1
POSITIVE FEELINGS ABOUT MYSELF	39		3	7.7					7	17.9	26	66.7			3	7.7
CONFIDENCE IN MY ABILITY TO COPE WITH MOST SITUATIONS	38								7	18.4	26	68.4			5	13.2
CONFIDENCE I CAN DO THINGS AS WELL AS MOST OTHERS MY AGE	38				1	2.6			4	10.5	32	84.2			1	2.6
FEELINGS OF USELESS- NESS	37						2	5.4	6	16.2	16	43.2	1	2.7	12	32.4
SOME DEGREE OF FORGETFULNESS	39		5	12.8					5	12.8	17	43.6			12	30.8
A DECREASE IN MY ABILITY TO LEARN NEW THINGS	38		2	5.3					5	13.2	14	36.8	1	2.6	16	42.1
DIFFICULTY MAKING UP MY MIND	39								6	15.4	18	46.2			15	38.5
DIFFICULTY THINKING THROUGH PROBLEMS	39		2	5.1			1	2.6	7	17.9	16	41			13	33.3

Person Most Likely to Help With Health Activities: Frequency Distributions

THE PERSON MOST LIKELY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
EXERCISE DAILY	47	5	10.6	2	4.3	1	2.1	1	2.1	35	74.5	3	6.4			
CONTROL MY WEIGHT	49	18	36.7						1	2.0	30	61.2				
EAT FRESH FRUITS AND VEGETABLES	47	2	4.3						1	2.1	43	91.5	1	2.1		
DO NOT SMOKE	44	2	4.5			1	2.3			35	79.5	6	13.6			
LIMIT ALCOHOLIC AND CAFFEINATED BEVER- AGES	45	3	6.7							38	84.4	4	8.9			
SEE MY DENTIST EVERY YEAR	42	15	35.7							13	31	13	31	1	2.4	
HAVE A COMPLETE PHYS- ICAL EXAM YEARLY INCLUDING VISION AND HEARING	44	36	81.8			1	2.3			7	15.9					
SCHEDULE REST PERIODS DURING THE DAY	42									37	88.1	5	11.9			
GET 6-8 HOURS OF UN- INTERRUPTED SLEEP EACH NIGHT	43	4	9.3							31	72.1	8	18.6			
DRINK AT LEAST 6-8 GLASSES OF FLUID A DAY	43	4	9.3							34	79.1	5	11.6			
SEEK HEALTH CARE SERVICES WHEN I FEEL ILL	46	39	84.8						1	2.2	6	13				

THE PERSON MOST LIKELY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
KNOW WHAT EACH MEDICA- TION I TAKE IS SUPPOSED TO DO FOR ME	46		33	71.7	4	8.7			2	4.3	7	15.2				
KNOW HOW TO TELL IF EACH MEDICINE IS WORK- ING PROPERLY	42		33	78.6	2	4.8					5	11.9			2	4.8
HAVE A HOBBY I ENJOY	42						1	2.4	3	7.1	33	78.6	1	2.4	4	9.5
HAVE SOMEONE TO SHARE MEMORIES WITH	41						1	2.4	29	70.7	8	19.5	2	4.9	1	2.4
REGULARLY ENJOY SOCIAL ACTIVITIES WITH FRIENDS AND/OR RELATIVES	42								30	71.4	9	21.4	2	4.8		
USE MEDICARE TO PAY FOR HEALTH CARE SERVICES	38		9	23.7	4	10.5	10	26.3	1	2.6	10	26.3	3	7.9	1	2.6
WOULD USE MEDICAID TO HELP PAY FOR HEALTH CARE SERVICES IF NECESSARY	38		8	21.1	6	15.8	10	26.3	1	2.6	6	15.8	3	7.9	4	10.5
PARTICIPATE IN THE SENIOR CITIZEN NUTRI- TION PROGRAM IN MY AREA	40		2	5			16	40	1	2.5	11	27.5	5	12.5	5	12.5
ATTEND THE FREE HEALTH SCREENING PROGRAMS IN THE AREA	38		6	15.8	5	13.2	8	21.1	1	2.6	10	26.3	3	7.9	5	13.2

THE PERSON MOST LIKELY TO HELP IS:	Total		Physician		Nurse		Social Worker		Relative or Friend		Myself		Other		No One	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
HAVE SOMEONE WITH WHOM I CAN SHARE MY MOST INTIMATE THOUGHTS AND ACTIVITIES	41								28	68.3	7	17.1	4	9.8	2	4.9
KEEP IN CLOSE CONTACT WITH MY RELATIVES	41		1	2.4					27	65.9	12	29.3	1	2.4		
MAKE EFFORTS TO ALWAYS LOOK MY BEST	41										38	92.7			3	7.3
HAVE DEVELOPED WAYS TO REDUCE STRESS AND TEN- SION WHICH WORK FOR ME	40		11	27.5	3	7.5			2	5	22	55			2	5
PARTICIPATE IN EDUCA- TIONAL PROGRAMS ABOUT THINGS THAT INTEREST ME	39		1	2.6			1	2.6	6	15.4	19	48.7	8	20.5	4	10.3
FIND WAYS TO BE USEFUL TO OTHERS	40						3	7.5	4	10	28	70	4	10	1	2.5
SEEK ADVICE WHEN I AM UPSET ABOUT SOMETHING	42		8	19			1	2.4	14	33.3	13	31	3	7.1	3	7.1

Socio Demographic Frequencies

1. How old are you? N=55

Range 65-89 $\bar{X} = 72.5$

2. What is your sex? N=56

12 Male (21.4%)

44 Female (78.6%)

3. What is your marital status? N=56

15 Married (26.8%)

4 Single, Never married (7.1%)

1 Separated (1.8%)

5 Divorced (8.9%)

31 Widowed (55.4%)

4. What was the first language you learned as a child;
the language spoken in your home by your parents? N=55

51 English (92.7%)

4 Other (7.3%) What language? Hungarian (7.3%)

5. What is your occupational status? N=56

1 Working at a regular job outside the
home for money (1.8%)

9 Housewife (16.1%)

Other

46 Retired (82.1%) How long have you been
retired? Range 3-25 years

6. Where do you live? N=56

10 One-family house (17.9%)

9 Owned (16.4%)

Rented

Where do you live? (cont'd.)

_____ Two-family house
 _____ Owned
 _____ Rented
 46 Apartment (82.1%)
 _____ Rented Room

7. With whom do you live? N=55

 38 Live alone (67.9%)
 16 Spouse (husband or wife) (28.6%)
 _____ Spouse and child (or children)
 1 Child (or children) (1.8%)
 _____ Relatives (for example: brother, sister,
 or cousins)
 _____ Non-relatives (for example friends)

8. Taking all sources of money into consideration, what was your family's total income for 1980 before taxes? N=48

 20 Less than \$5,000 (41.7%)
 13 \$5,000 to \$9,999 (27.1%)
 6 \$10,000 to \$14,999 (12.5%)
 9 \$15,000 or more (18.8%)

9. Do you feel you are generally in good health? N=54

 54 Yes
 _____ No

10. Do you have a regular doctor you try to see first if you get sick? N=54

 51 Yes (94.4%)
 3 No (5.6%)

11. Have you had a physical checkup within the last year? N=53

41 Yes (77.4%)

12 No (22.6%)

12. Other than for a physical checkup, how many times have you been to a doctor or a health clinic during the last 12 months? N=54

8 Never (14.8%)

7 One time (13%)

15 Two or three times (27.8%)

12 Four or five times (22.2%)

12 Six or more times (22.2%)

APPENDIX F
PERSONS MOST LIKELY TO HELP

Table 1-F. Perceived Total Health Needs of Older Adults

Health Needs	Total N	Number of Participants Agreeing with Statement	%
Pain and Stiffness of Joints	55	45	81.8
Change in Work Activities	53	42	79.2
Visual Changes	52	41	78.8
Need to Reminisce	47	35	74.5
Difficulty Doing Household Tasks	55	39	70.9
Increased Need for Family Closeness	50	35	70.0
Daytime Tiredness	53	37	69.8
Change in Social Activities	52	36	69.2
Denture Problems	50	34	68.0
Change in Daily Routines	50	34	68.0
Increasing Deafness	55	33	60.0
Cold hands and/or feet	54	32	59.3
Shortness of Breath	56	33	58.9
Forgetfulness	52	30	57.7
Change in Sexual Relations	45	23	51.1
Change in Diet	51	24	47.1
Frequent Urination	52	24	46.2
Swelling of Hands and/or Feet	52	22	42.3
Numbness of Hands and/or Feet	52	21	40.4
Loss of Balance	52	21	40.4
Difficulty Sleeping	51	20	39.2
Difficulty Chewing	51	18	35.3
Decreased Ability to Learn	51	18	35.3
Difficulty Affording Health Care	53	15	28.3
Incontinence	52	14	26.7
Constipation	52	13	25.0
Decreased Ability to Smell Odors	49	12	24.5
Difficulty Following Medication Regimen	51	12	23.5
Difficulty Affording Social Activities	52	11	21.2
Difficulty Problem-Solving	52	10	19.2
Difficulty Decision-Making	52	9	17.3
Difficulty Affording Utilities	52	9	17.3
Feelings of Uselessness	50	8	16.0
Difficulty Affording Clothing	51	8	15.7
Difficulty Affording Food	51	7	13.7
Difficulty Affording Housing	51	5	9.8
Difficulty Coping	51	4	7.9
Negative Feelings	51	3	5.9
Lack of Confidence in Ability to do Things as Well as Peers	54	3	5.6

Table 2-F. Comparison of Perceived Health Needs and Performance of Health Activities

<u>PERCEIVED HEALTH NEEDS</u>		<u>PERFORMANCE OF HEALTH ACTIVITIES</u>	
PHYSICAL NEEDS		PHYSICAL NEEDS	
Pain and Stiffness of Joints	81.8	Weight Control	94.3
Visual Changes	73.8	Medicine Purpose	94.3
Tiredness (Daytime)	69.8	Fruit and Vegetable Intake	90.9
Denture Problems	68.0	Illness Care	88.7
Deafness	60.0	Limit Alcohol and Caffeine	88.2
Cold Hands and/or Feet	69.3	Physical Exam	86.5
Shortness of Breath	58.9	Daily Exercise	84.6
Change in Diet	47.1	Dentist Exam	84.0
Frequency of Urination	46.2	Medicine Effects	82.4
Swelling of Hands and/or Feet	42.3	Do Not Smoke	78.0
Numbness in Hands and/or Feet	40.4	Daytime Rest	73.6
Loss of Balance	40.4	Adequate Fluids	69.2
Sleep Problems	39.2	Adequate Sleep	63.6
Chewing Problems	35.3		
Incontinence	26.9		
Constipation	25.0		
Decreased Ability to Smell	24.5		
SOCIOECONOMIC NEEDS		SOCIOECONOMIC NEEDS	
Affording Health Care	28.3	Medicare	92.3
Social Activities	21.2	Medicaid	75.0
Utilities	17.3	Netrition Program	67.3
Clothing	15.7	Health Screening	60.8
Food	13.7		
Housing	9.8		
PSYCHOLOGICAL NEEDS		PSYCHOLOGICAL NEEDS	
Change Work Activities	79.2	Social Activity	100.0
Reminiscence	74.5	Usefulness	98.1
Difficulty with Household Tasks	70.9	Contact with Relatives	96.4
Family Closeness	70.0	Share Memories	96.0
Social Activities (Change)	69.2	Hobby	86.3
Change in Routines	68.0	Care about Appearance	90.9
Forgetfulness	57.7	Share Intimate Activities	83.0
Sexual Relations	51.1	Seek Advice	76.9
Learning Ability	35.3	Stress Management	76.5
Learning Medical Regime	23.5	Education Programs	75.0
Problem-Solving	19.2		
Decision-Making	17.3		
Uselessness	16.0		
Coping Ability	7.9		
Negative Feelings	5.9		
Doing Things	5.6		

Table 3-F. Persons Most Likely to Help with Health Needs

Physician	Nurse	Social Worker
Visual Changes	95.7%	Difficulty Doing House-
Increasing Deafness	81.8	hold Tasks
Pain and Stiffness of Joints	75.0	Difficulty Affording
Loss of Balance	69.6	Health Care
Swelling of Hands and/or		Difficulty Affording
Feet	65.9	Food
Shortness of Breath	60.4	Difficulty Affording
Denture Problems	59.1	Clothing
Numbness of Hands and/or		Difficulty Affording
Feet	58.1	Utilities
Difficulty Following		Feelings of Uselessness
Medication Regimen	47.0	Difficulty Affording
Frequent Urination	43.5	Housing
Incontinence	42.2	Difficulty Affording
Difficulty Chewing	42.1	Social Activities
Difficulty Sleeping	39.5	Change in Social
Daytime Tiredness	38.3	Activities
Decreased Ability to		Need to Reminisce
Smell Odors	37.2	Difficulty Problem-
Change in Diet	34.7	Solving
Cold Hands and/or Feet	34.0	Change in Sexual
Constipation	33.3	Relations
Difficulty Coping	18.4	Change in Daily Routines
Change in Sexual Relations	13.2	Change in Diet
Forgetfulness	12.8	
Negative Feelings	7.7	
Decreased Ability to Learn		
New Things	5.3	
Difficulty Problem-Solving	5.1	
Change in Daily Routines	5.0	

Table 3-F (cont'd.)

	Physician	Nurse	Social Worker
Difficulty Doing Household Tasks	4.3%		
Difficulty Affording Health Care	4.3		
Change in Work Activities	2.5		
Difficulty Affording Food	2.4		
		<u>Myself</u>	<u>Other</u>
<u>Relative or Friend</u>			
Need for Family Closeness	70.7%	Difficulty Doing Things as Well as Peers	Denture Problems 34.1%
Need to Reminisce	56.4	Change in Work Activity	Difficulty Chewing 26.3
Difficulty Doing Household Tasks	31.9	Difficulty Coping	Difficulty Affording Health Care 10.9
Difficulty Affording Health Care	23.9	Negative Feelings	Difficulty Doing Household Tasks 10.6
Change in Social Activity	19.5	Change in Daily Routines	Difficulty Affording Utilities 9.5
Difficulty Affording Clothing	22.0	Change in Social Activity	Difficulty Affording Social Activities 7.3
Difficulty Affording Social Activities	19.5	Cold Hands and/or Cold Feet	Difficulty Affording Housing 5.0
Difficulty Coping	18.4	Difficulty Decision-Making	Difficulty Affording Clothing 4.9
Difficulty Problem-Solving	17.9	Daytime Tiredness	Feelings of Uselessness 2.7
Negative Feelings	17.9	Forgetfulness	Decreased Ability to Learn 2.6
Difficulty Affording Housing	17.5	Feelings of Uselessness	Need to Reminisce 2.6
Feelings of Uselessness	16.2	Difficulty Affording Food	Change in Sexual Relations 2.6
Difficulty Decision-Making	15.4	Difficulty Problem-Solving	Change in Social Activities 2.4
Change in Daily Routines	15.0	Difficulty Affording Housing	
Difficulty Affording Utilities	14.3	Difficulty Affording Housing	
Decreased Ability to Learn	13.2		
Forgetfulness	12.8		

Table 3-F (cont'd.)

Relative or Friend	Myself	Other
	Pain and Stiffness of Joints	15.48
	Difficulty Chewing	13.2
	Loss of Balance	8.7
	Increasing Deafness	6.8
	Denture Problems	4.5

Table 4-F. Persons Most Likely to Help with Health Activities

Physician	Nurse		Social Worker
Seek Illness Care	84.8%	Use Medicaid	Nutrition Program
Annual Physical Exam	81.8	Free Health Screening	Use Medicare
Know Medication Effects	78.6	Use Medicaid	Use Medicaid
Know Medication Purpose	71.7	Know Medication Purpose	Free Health Screening
Weight Control	36.7	Stress Management	Find Ways to be Useful
Annual Dental Exam	35.7	Know Medication Effects	Educational Programs
Stress Management	27.5	Daily Exercise	Seek Advice
Use Medicare	23.7		Social Activity
Use Medicaid	21.1		Share Memories
Seek Advice	19.0		Hobby
Free Health Screening	15.8		Annual Physical Exam
Daily Exercise	10.6		Do Not Smoke
Adequate Sleep	9.3		Daily Exercise
Adequate Fluid Intake	9.3		
Limit Alcohol and Caffeine	6.7		
Nutrition Program	5.0		
Do Not Smoke	4.5		
Eat Fresh Fruits and Vegetables	4.3		
Educational Programs	2.6		
Contact with Relatives	2.4		

Table 4-F (cont'd.)

Relative or Friend	Myself	Other			
Social Activity	71.4%	Care About Appearance	92.7%	Annual Dental Exam	31.0%
Share Memories	70.7	Eat Fresh Fruits and Vegetables		Educational Program	20.5
Share Intimate Activity	68.3	Daytime Rest	91.5	Nutrition Program	12.5
Contact with Relatives	65.9	Limit Alcohol and Caffeine	88.1	Find Ways to be Useful	10.0
Seek Advice	33.3	Do Not Smoke	84.4	Share Intimate Activity	
Educational Programs	15.4	Adequate Fluid Intake	79.5	Free Health Screening	9.8
Find Ways to be Useful	10.0	Hobby	79.1	Use Medicaid	7.9
Hobby	7.1	Daily Exercise	78.6	Use Medicare	7.9
Stress Management	5.0	Adequate Sleep	74.5	Seek Advice	7.0
Know Medication Purpose	4.3	Find Ways to be Useful	72.1	Stress Management	5.0
Free Health Screening	2.6	Weight Control	70.0	Share Memories	4.9
Use Medicaid	2.6	Stress Management	61.2	Social Activity	4.8
Use Medicare	2.6	Educational Programs	55.0	Hobby	2.4
Nutrition Program	2.5	Seek Advice	48.7	Contact with Relatives	2.4
Seek Illness Care	2.2	Annual Dental Exam	31.0		
Daily Exercise	2.1	Contact With Relatives	31.0		
East Fresh Fruits and Vegetables		Nutrition Program	29.3		
Weight Control	2.0	Use Medicare	27.5		
	2.0	Free Health Screening	26.3		
		Social Activity	26.3		
		Share Memories	21.4		
		Share Intimate Activity	19.5		
		Annual Physical Exam	17.1		
		Use Medicaid	15.9		
		Know Medication Purpose	15.8		
		Seek Illness Care	15.2		
		Know Medication Effect	13.0		
			11.9		

Table 5-F. Health Needs and Health Activities for which
No Assistance is Expected

Health Needs	%	Health Activities	%
Decreased Ability to Smell	44.2	Adequate Sleep	18.6
Decreased Ability to Learn	42.1	Do Not Smoke	13.6
Changes in Sexual Relations	39.5	Free Health Screening	13.2
Difficulty Decision-Making	38.5	Nutrition Programs	12.5
Incontinence	37.8	Adequate Daytime Rest	11.9
Affording Social Activity	36.6	Adequate Fluids	11.6
Affording Housing	35.0	Participation in Medicaid	10.5
Frequency of Urination	34.8	Education Programs	10.3
Affording Clothing	34.1	Hobby	9.5
Difficulty Problem-Solving	33.3	Limit Alcohol and Caffeine	8.9
Affording Utilities	33.3	Care about Appearance	7.3
Feelings of Uselessness	32.4	Seek Advice	7.1
Affording Food	31.0	Exercise	6.4
Forgetfulness	30.8	Share Intimate Thoughts	4.9
Difficulty Sleeping	30.2	Know Medicine Effects	4.8
Constipation	27.1	Use Medicare	2.6
Numbness of Hands and/or Feet	23.3	Find Ways to be Useful	2.5
Shortness of Breath	20.8	Share Memories	2.4
Change in Diet	20.4	Annual Dental Exam	2.4
Change in Daily Routines	20.0	Consume Fruits & Vegetables	2.1
Change in Work Activity	20.0		
Change in Social Activity	19.0		
Difficulty Chewing	18.4		
Reminiscence	17.9		
Affording Health Care	17.4		
Loss of Balance	17.4		
Cold Hands and/or Feet	14.9		
Swelling of Hands and/or Feet	14.6		
Difficulty Coping	13.2		
Daytime Tiredness	12.8		
Increasing Deafness	11.4		
Family Closeness	9.8		
Following Medicine Regimen	9.1		
Positive Feelings	7.7		
Visual Changes	4.3		
Difficulty with Household Tasks	4.3		
Pain and Stiffness of Joints	3.8		
Difficulty Doing Things	2.6		
Denture Problems	2.3		

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