Order Number 1357364

Nurse practitioner clinic utilization by elderly women

Mechling, Eileen, M.S.

The University of Arizona, 1994

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

NURSE PRACTITIONER CLINIC UTILIZATION BY ELDERLY WOMEN

by

Eileen Mechling

A Thesis Submitted to the Faculty of the

COLLEGE OF NURSING

In Partial Fulfillment of the Requirements
For the Degree of

MASTER OF SCIENCE IN NURSING
WITH A GNP OPTION

In the Graduate College

THE UNIVERSITY OF ARIZONA

1 9 9 4

STATEMENT BY AUTHOR

This thesis has been submitted in partial fulfillment of requirements for an advanced degree at The University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgement of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the copyright holder.

SIGNED: Eileen Mechling

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Joyce A. Verran
Professor of Nursing

January 13, 1994
Date

ACKNOWLEDGEMENTS

For the love and presence of a caring husband, for the immeasurable help and support of my thesis committee, for the many friends and classmates who boosted me onward, I wish to thank you all so very, very much.

TABLE OF CONTENTS

TABLE OF CONTENTS - *Continued*

LIST OF ILLUSTRATIONS

LIST OF TABLES

ABSTRACT

The purpose of this study was to explore the utilization patterns of elderly women in a nurse managed clinic (NMC). A convenience sample of 20 women, 65 and older, attending an NMC completed an questionnaire and an interview. A pilot study guided the development of the questionnaire. Interrater reliability was performed to enhance the reliability of the pattern categories developed from the interviews.

The findings of this research were that elderly women utilized this NMC for: physical assessment and monitoring; health care information; evaluating a physical need; referral; emotional support; socialization; convenience; cost; familiarity/comfort; health care need; and reliability. Satisfaction was the main component of the clients' perception of their visit to the NMC. Conclusions reached were that utilization of this NMC was based mainly on perceptions of health care needs and that cost, convenience, and familiarity influenced clients in choosing this clinic in addition to their primary care provider.

CHAPTER I

INTRODUCTION

Health care issues of the elderly have been in the news over the last few years with increasing frequency. Aging Americans are faced with issues such as adequacy of medical coverage as they grow older, sources of payment and coverage for care, and quality of that care (Leslie & Swider, 1986; Thompson, 1990). Our society is comprised of increasing numbers of elderly with increasing life expectancy (Department of Health and Human Services [DHHS], 1991). Of these elderly, the majority are and will be women, who will most likely be widowed, have less health care coverage than their male counterparts, live alone, and/or have dwindling finances due to years as caretakers to ill or disabled spouses (Faulkner & Micchelli, 1988; Leslie & Swider).

Nurse managed centers (NMCs) have provided health services to elderly women in the areas of health education and promotion most notably since the 1960s (Riesch, 1992). Acceptance of this nurse directed care by specific client populations has been documented by M. A. Bagwell (1987), J. Hill (1986), and L.Pulliam (1991). The object of this study was to determine the efficacy of a nurse managed center and how it fulfills the needs of a community based group of elderly women.

Background of the Study

The elderly, described as those 65 years of age and older, have grown in number from 22.4 million in 1975 to 26.8 million in 1982. By

the year 2000, it has been estimated that 35 million Americans will be older than 65. The fastest growing group within this elder population are those

over 75 years of age, which is also projected to be the group with the greatest probability of chronic health problems and functional impairment (Faulkner & Micchelli, 1989). As longevity increases, so will the number of elderly women. Women have lower rates of death than men in all age groups with the difference even more noticeable in the older age groups (Verbrugge & Wingard, 1987).

Need for Health Care

Chronic disease and disability are more prevalent in women as they age than in men. Some of these conditions can be attributed to women living longer (Jacobs Institute of Women's Health [JIWH], 1992; Older Women's League (OWL), 1988). Men and women face many similar health problems and in similar proportions, however, other health problems appear uniquely in women. The diseases common to both older women and men are arthritis, cardiovascular disease, cancer, diabetes, stroke, and osteoporosis. Breast cancer is the leading cause of cancer deaths in women and will affect one in eleven women in the United States (OWL). Heart disease continues as the main cause of death in women over 65. While women have only half the coronary heart disease as do men, once the disease reveals itself, women are more likely to die from heart attacks than men. Osteoporosis is present in nine of ten women over 75. Bone loss in women presents at twice the rate as men's bone loss between 40 and 50 and can increase to four times the rate of men following

menopause (OWL). This condition is implicated in many bone fractures which is a leading cause of hospitalization for older women. Alzheimer's disease, accounting for approximately 75% of dementia in the elderly, is also seen more in females (OWL).

Use of Health Care

Use of health care services by the elderly is determined by their access to care as well as various social supports, health beliefs and perceptions of need for health care services (Wolinsky & Johnson, 1991). Cost is a major issue in access to health care for women. Assets, private pensions, and social security are the main sources of income for the elderly woman (Leslie & Swider, 1986). Assets for elderly women are generally modest or nonexistent. This fact is not surprising since assets are linked to lifetime income and women have traditionally worked in low-income occupations with high turnover and poor benefits. Pensions are also infrequently seen in this age group. For 60% of all unmarried women over 65, social security is the only source of income (Leslie & Swider). In addition, women comprise 85 to 90% of those receiving only the minimum benefits from Social security. Add this to the reality that Medicare covers approximately 44% of the older person's health care bills. Additional health care expenses must be met with supplemental insurance or with personal funds (Leslie & Swider).

Several changes in access and use of health care services were identified in the 1986 Johnson Foundation survey including: (1) a decline in Americans overall use of medical care from 1982 to 1986; (2) a decrease of access to physician care for those who were poor, black,

or uninsured during this same time period; and (3) less hospital care by the uninsured and black and Hispanic Americans than might be expected given their higher rates of ill health (Freeman et al., 1990).

Equality in Health Care

In recent years there has been a growing awareness of gender inequality in health care and health research. The most frequently cited differences in health care between genders were described in the field of coronary artery disease. Despite the knowledge that coronary artery disease has been the leading cause of death in women over 65 (National Center for Health Statistics [NCHS], 1989), the use of diagnostic and treatment modalities for coronary artery disease were used less often in women than in men (Ayanian & Epstein, 1991; Maynard, Litwin, Martin, & Weaver, 1992; Steingart et al., 1991; Tobin et al., 1987).

Differences in access to care and treatment approaches in mental health care for women have also been documented (Carmen, Russo & Miller, 1981). Of note were the marked decrease in entry of women over men into both drug abuse and emergency treatment programs as well as high drop out rates of women from drug abuse treatment programs (Carmen et al.). Delayed detection of lung cancer in women (Wells & Feinstein, 1988) and fewer women than men receiving kidney transplants under Medicare coverage (Held, Pauly, Bovbjerg, Newmann, & Salvatierra, 1988) have also been noted.

Utilization of Nurse Practitioners

Due to cost containment issues in the health care arena and the need for more efficient and effective health services, alternative health care delivery forms needed to be explored. Nurse practitioners (NPs), a type of advanced practice nurse, had already demonstrated their cost-effectiveness and their ability to provide high-quality primary care (Safriet, 1992). One of the most comprehensive studies focusing on evaluation of NPs' quality, cost-effectiveness, and access to services was the case report from the Office of Technology Assessment (OTA, 1986) entitled Nurse Practitioners, Physicians, and Certified Nurse-Midwives: A Policy Analysis. Findings from this study indicated that NPs provide quality care within their area of competence whose quality was equivalent to that of care provided by MDs. NPs also provided increased access to care not only in rural areas but in areas not adequately served by MDs (e.g., schools, nursing homes). In addition, NPs were found to increase a total practice output by 20 - 50% (OTA).

Nurse Managed Centers

One setting in which nurse practitioners have provided service is nurse managed centers. The concept of nurse managed centers (NMCs) has had a resurgence since the 1960s, as an outgrowth of public health nursing and with a focus on providing service and programs to nonhospitalized patients (Riesch, 1992). Riesch further defined nurse managed centers as:

> ... organizations that provide direct access to professional nurses who offer holistic client-centered health services for

> reimbursement. With the use of nursing models of health, professional nurses in nursing centers diagnose and treat human responses to potential and actual health problems. Examples of professional nursing services include health education, health promotion, and health-related research. (p. 146)

Another strength of NMCs has been their history of targeting populations in particular need such as the poor, women, elderly and minorities, implementing an effective referral system, collaborating with other health professionals, and utilizing a professional nurse in the administration of these clinics (Riesch).

Statement of the Problem

The problem explored in this study was: what are the utilization patterns of elderly women in one nurse managed clinic established for the needs of a population of community dwelling elders and operated by nurse practitioners.

Purpose and Research Questions

The purpose of this study was to explore the reasons why older women use nurse managed clinics and, in particular, one specific nurse managed clinic. The following research questions were asked:

1. What health care is this select group of elderly women receiving at the nurse managed center?

2. What are the reasons/factors expressed by clients for utilizing the nurse managed center and for their choosing this site for their health care needs?
3. What are the clients perceptions of their health care visits to the nurse managed clinic?

Significance of the Study

Cost and quality are important issues in this day and age of restricted resources and limited income among the elderly. Elderly women are high users of health care and some have been placed in the position of having to choose between paying for food or health care needs. High health care costs combined with better health education and more treatment alternatives result in consumers wanting to know more about their condition, questioning the necessity for treatment (Nice, Butler, & Dutton, 1983), and wanting to evaluate services and participate in decisions regarding their health. Locker and Dundt (1978) and Nice et al. emphasize that patient satisfaction has a role in such health behaviors as seeking medical care, complying with medical regimens, and continuing a relationship with a health care provider. Thus measurements of patient satisfaction have become of prime importance in evaluating quality of care and identifying actions to improving care, key factors in health care delivery.

Definition of Terms

Access to care: Access is used interchangeably with entry when referring to the process of gaining entrance into the health care system (Aday & Andersen, 1975). In addition to applying to gaining entry to the health care system it also applies to the means to continue the process.

Nurse managed clinics: Nurse managed centers are centers for delivery of health care services to select segments of the population, such as the elderly, the poor and the underserved. These centers are administered by nurses and provide professional nursing services that include health education and promotion and perform health-related research (Riesch, 1992). Health care is promoted through diagnosis and treatment of potential and actual health problems.

Nurse practitioner: Nurse practitioners are providers of primary health care; that care which a client receives beginning with their first contact with the health care system, including all services necessary for health promotion, prevention of disease and disability, health maintenance, and rehabilitation (American Nurses Association [ANA], 1985). The nurse practitioner is a nurse, who through master or doctoral education, has become expert in a defined area of knowledge and practice such as community health nursing, family care nursing, and gerontological nursing.

Utilization of health services: Utilization of health care services, as defined by Aday and Andersen (1975), refers to the pattern of using the health care system by an individual. This can include the type of

health care utilized, that is the service provided and by whom. This can also include the site of the health care service and the purpose of the visit.

Summary

Elderly women present as a unique population subgroup of elders with their own health care needs. No longer will it be sufficient to utilize findings from research compiled from male samplings or other age cohorts and apply the results to this age group and gender. Research specific to elderly women's health care needs are lacking and this issue needs to be addressed. Included in this area of needed research are cohort specific issues in health care such as access to health care, utilization of health services, perceptions of care, and expansion of health care opportunities to meet the diversities of the elderly woman's needs.

CHAPTER II

CONCEPTUAL PERSPECTIVE

Introduction

The Andersen Model (Andersen & Newman, 1973) is utilized in this study as a guide to explore patterns and trends in the utilization of health care services in a community based group of elderly women. As health care utilization receives more attention in this country, a closer look at the components included in the Andersen Model may prove beneficial in understanding this phenomenon.

The Andersen Model begins with the premise that "...utilization of health care services can be viewed as a type of individual behavior" (Andersen & Newman, 1973). However, in addition to viewing the behavior of the individual, Andersen and Newman contend that behavior must be viewed along with the environment in which the individual lives as well as the interaction between the two. Within this framework the main components consist of societal determinants, the health services system, and individual determinants (Figure 1).

Societal determinants include technology and norms as the basic components. Technology can be defined as principles and techniques useful to bring about a change toward a desired end. Norms are used to describe society's system of insuring normal compliance on the part of its members (Andersen & Newman, 1973).

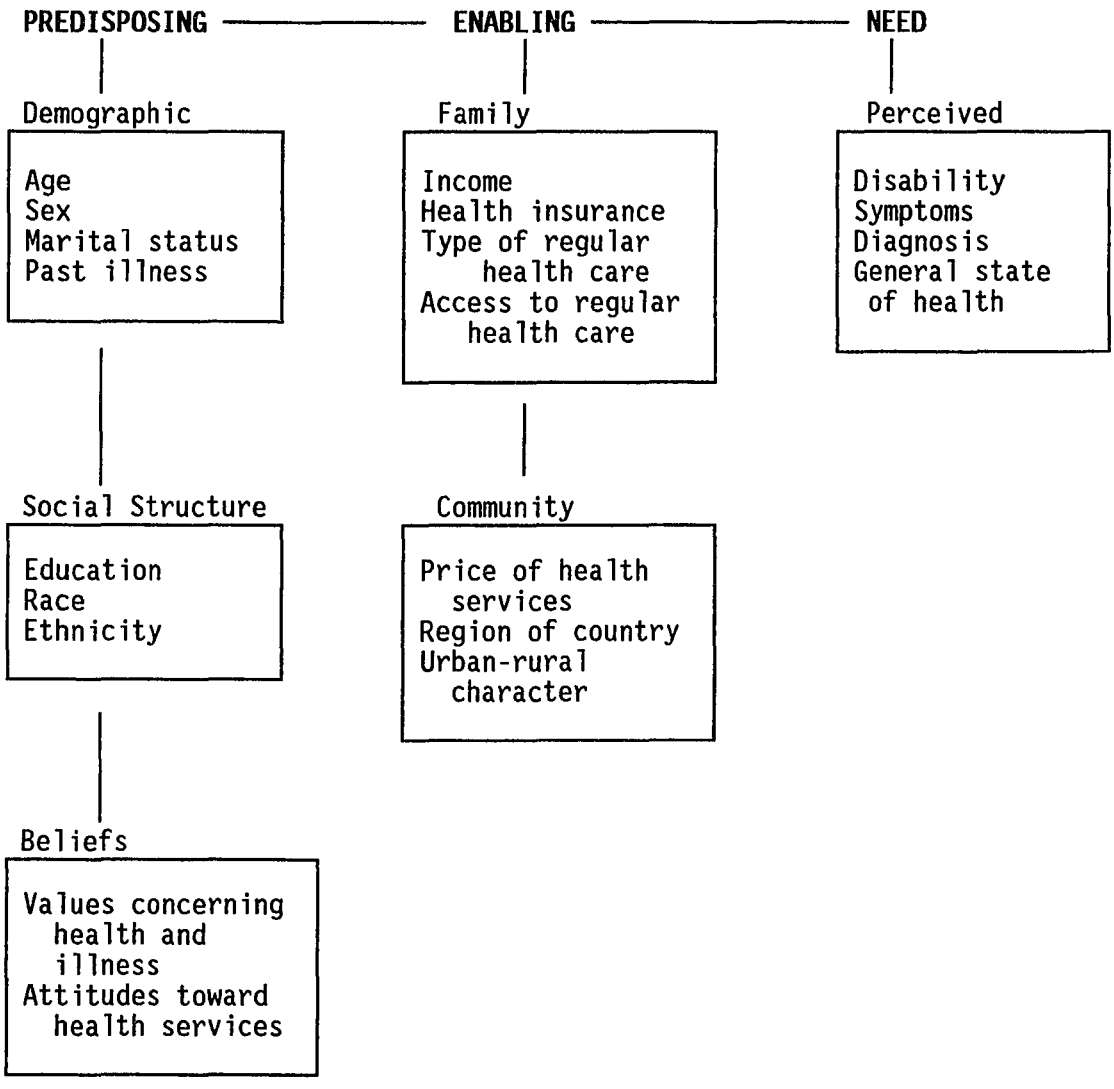

FIGURE 1

Individual determinants of health service utilization, adapted from Andersen and Newman (1973).

The health services system of a health care organization includes two major components: resources and organization. The resource component includes the total amount of resources available to the population being viewed and the way in which they are distributed. The organization component of the health services system is comprised of access and structure. Access and structure refer to the manner in which medical personnel and facilities are controlled while in the process of delivering medical services (Andersen & Newman, 1973).

The final component of the Andersen Model is the individual characteristics that help determine the health care individuals receive. Underlying this component is the basic assumption that a sequence of conditions contributes to the health service an individual uses. This use is dependent on the individual's: (1) predisposition to use services; (2) ability to secure services; and (3) perceived need (Andersen & Newman, 1973).

Literature Review

Utilization of health care services by elderly women is a multifactor issue. To view the selected areas of this phenomenon as they relate to this study, the literature review focused on those aspects of health care in the elderly that relate to individual characteristics described in the Andersen Model.

Predisposing Factors in Health Care Use

Predisposition to use of services depends on individual characteristics such as demographics of age and gender, social

structure, which includes education and occupation, and attitudes and beliefs about medical care, health care providers and disease (Andersen & Newman, 1973).

Wolinsky and Johnson (1991) used baseline data from the Longitudinal Study on Aging (N = 5,151) to analyze older adults (aged 70 years or more) use of health care. Age was found to be related to the number of bed-disability days and the likelihood that the elderly would go to a nursing home or that they would die. As age increased, older persons were less likely to take at home bed-disability days and had fewer of them. In addition, there was an age-related likelihood of death and/or nursing home placement. Health care utilization based on gender was found significant for bed-disability days, frequency of hospital contact, length of hospitalization stays, and incidence of death. Women took fewer bed-disability days at home and were less likely to have been hospitalized. If hospitalized, women were more likely to have shorter stays. Of those women having seen a physician, there were fewer visits than men. In addition, women were less likely to die. Educational attainment was significant in that the higher the education level the greater the number of doctor visits. No significance in health care utilization was found for race, living alone, or being widowed (Wolinsky & Johnson).

According to Leslie and Swider (1986), women in almost every age group used more health and medical services. Women in general were hospitalized more often than men but their hospital stays tended to be shorter. This statement regarding more hospital use by women appeared

to be in conflict with Wolinsky and Johnson (1991), however Leslie and Swider did not differentiate hospitalization rates for women based on age.

Freeman et al. (1990) compared trends in health care use from the Johnson Foundation surveys of 1982 (N = 6700) and 1986 (N = 10,130). Of significance are the following findings. Overall use of medical care between 1982 and 1986 declined. During the same time period there was a decrease in access to physician care for those who were poor, black, or uninsured, particularly for those in poor health. Although hospitalizations had declined for all three groups, the uninsured and black and Hispanic Americans continued to receive less hospital care than their higher rates of ill health would indicate.

Enabling Factors in Health Care Use

The ability to secure services can be titled enabling factors. These factors are conditions permitting an individual or family to act on a value or satisfy a need regarding health service use. Such conditions or means that an individual has available to them may include income, health care insurance, the type and availability of health care and the accessibility to that care (Aday & Andersen, 1975; Andersen & Newman, 1973).

As women grow older in the United States, many can expect to live in poverty. Women comprise 72% of all elderly poor (Leslie & Swider, 1986). Since women have traditionally worked in low paying or part-time jobs with high turnover and poor benefits, there are usually few assets or they are nonexistent. Private pensions are not a benefit that most

women have. Less than 20% of all retiring women have pension benefits. Until 1983, women were legally paid a lower monthly benefit following retirement though they had been taxed at the same level as men (Leslie & Swider). For 60% of all women over the age of 65 years, Social Security is the only source of income. In addition, of those receiving only the minimum benefit, 85 to 90% are women and are frequently forced to choose between food and shelter (Lempert, 1986).

Access to care is directly associated with women's ability to pay. Forty-four percent of the older person's health care is funded by Medicare. Supplemental insurance or personal funds cover additional expenses. The most frequently used supplemental insurance in the United States is Medicaid. Two-thirds of all Medicaid recipients are women (Leslie & Swider, 1986).

The Longitudinal Study on Aging results define those dependent on Social Security for retirement income as having increased disability days, with decreased likelihood of physician contact, and an increased number of nights hospitalized (Wolinsky & Johnson, 1991). Those having private health insurance were significant only for being more likely to have had physician contact in the past twelve months.

Access to Care

Access to care can also be an approach to exploring the means by which the patient gains entry into the health care delivery system and the continuous treatment process. There is an overlap with this term because access to care encompasses predisposing factor such as age, sex, and race and also includes enabling factors such as community

characteristics (Aday & Andersen, 1975). Factors which influence access to the system include out-of-pocket cost to the patient for health care, the length of waiting for health care, and qualifying limitations for treatment imposed on the patient (Andersen & Newman, 1973). Implicit is the fact that certain categories of people have more or less access to health care than others.

An issue that may limit women's access to care is a physician's biases to delivering health care needs based on gender. Several studies demonstrate that women with coronary artery disease undergo cardiac catheterization and coronary artery bypass surgery less often that men (Ayanian & Epstein, 1991; Steingart et al., 1991). This difference occurred even though the women had symptoms of myocardial ischemia as frequently as men and reported more disability as a result of their symptoms (Steingart et al.). Suggestions were made that the rates at which procedures were performed may be influenced by physicians' beliefs that coronary artery disease is more severe among men and that there are sex related differences in risk and efficacy for catheterizations and coronary artery surgery that supports their decisions (Ayanian & Epstein).

The role of women as caregivers may be viewed as a limiting factor to health in our society. Women outnumber men in every age category over 55 (Public Health Service [PHS], 1985), thus it is not surprising that 72% of home caregivers are women (Gaynor, 1990). This vocation brings with it an increase in illness episodes based on the length of time one has engaged in home caregiving. Those women over 54

and caring for their spouse, experienced more illness than short-term caregivers or younger caregivers in a study on the effects on home care on the caregivers (Gaynor). Also noted was the occurrence of increased visits to the physician by the caregiver when the spousal visits increased. The caregiver's own health deteriorates as aging and the stress of prolonged caregiving results in additive, negative health effects.

Perception of Needs

The illness level of the individual represents the most immediate cause of a client utilizing health care services and can be equated with their perception of need. The illness level encompasses the individual or family in their perception of illness or the probability of its occurrence in order for health services to take place (Andersen & Newman, 1973). Adding to this is the fact that once the individual or family seeks care from the health care system, the nature and extent of that care is in part defined by them.

Older adults perceptions of their health are quite variable. A study by Verbrugge and Wingard (1987) found strong support that women consistently report a worse health status than men. However, this assessment changed at about the age of 60 when men reported poorer health status. In a survey of 889 adults ranging in age from 50 to over 85, the Halifax Planning Department found the majority of respondents perceiving their health to be good or excellent (Melanson & Downe-Wamboldt, 1987).

Older adults with poorer perceptions of their health are more likely to use health services (Wolinsky & Johnson, 1991). When health was perceived to be less than good, more disability days were taken and there was more physician and hospital contact within the past twelve months.

Women, as the family member usually responsible for the health of the family, are known to use health services more frequently than men and also are more likely to have a regular source of health care and source of health care information than men (Jacobs Institute of Women's Health [JIWH], 1991). What is unclear is whether this is a result of greater illness, perceived need, or availability of services.

Utilization of Health Care Services

In order to validate the effects of an individual's characteristics on their access into the health care system, an external measure is needed. The pattern of a client's utilization of the system is one such measure (Aday & Andersen, 1975). Included in this measure are the types of health care utilized, such as the kind of service and who provided it. Also included in this measure is the site and purpose of the visit: primary, secondary or tertiary care.

Perception of Health Care Services Delivered

Perception of health care has been approached in terms of consumer satisfaction in numerous studies (Bagwell, 1987; Locker & Dunt, 1974; Pulliam, 1991). Consumer satisfaction refers to the attitude of those experiencing a contact with the health care system. Quantity or quality is the usual focus of measuring users' satisfaction. Specific

dimensions of satisfaction that can be measured are satisfaction with the convenience of care, its coordination, the courtesy shown by providers, information given to the patient regarding his health care, and the quality of care the patient thinks he has received (Aday & Andersen, 1975).

Acceptance of the role of the Nurse Practitioner (NP) in nurse managed centers is also a factor in the perception of health care services received. In the Burlington randomized trial, ending in 1972, 817 patients were interviewed to test the primary care performance of nurse practitioners at the beginning of a testing period and then at the end of a year (Spitzer et al.,1974). These patients were members of families who were randomly assigned to one of two physicians or one of two nurse practitioners who would then provide their first-contact primary clinical services. In addition, clinician activities were observed and activities of the practice, in the form of a daily journal, was elicited from the medical or nursing practitioner. During the experimental phase only seven families from the physician assigned group and five from the nurse practitioner assigned group refused their assignment, from 1598 families eligible for the trial. During the year between interviews, dissatisfaction was the cause of 0.9% of the families leaving the physician assigned group and 0.7% leaving the nurse practitioner assigned group. Similar levels of physical health status existed between the two groups as well as similar death rates. Satisfaction of health services received was found to be 97% in the physician group and 96% in the nurse practitioner group.

Enggist and Hatcher (1983) studied the acceptance of the medical nurse practitioner (MNP) before and after implementation of a MNP program at a general medicine clinic at a large inner-city hospital. Higher consumer acceptance of the role of the MNP was exhibited in the 'after implementation' survey in all four indicators of MNP role acceptance: basic receptivity to the MNP, independent MNP role, interdependent MNP role, and perception of the effectiveness of the MNP. This acceptance of the MNP role was higher even with the severity of symptoms evaluated. Another finding substantiated with this study was that the choice of an MNP for health care was greater in those who actually had been treated by an MNP over those simply understanding the concept.

In a study of clients ($\underline{N}$ = 32) in a rheumatology nursing clinic, Hill (1986) describes results from a questionnaire as showing that her patients were able to define differences in care between the nursing clinic and the traditional medical clinic and that these differences were seen as beneficial. Hill's findings included patients' evaluations of the nurse's ability to make relevant referrals and recommendations, supply appropriate physical aids, and the presentation of patient education. In comparing their care in the last month with previous care, ten considered the care 'good' and 22 thought the care was 'better'. Comments cited by the patients under this section were that they received more individual and personal attention, education and advice, and continuity of care.

Fewer studies have been found on evaluating nursing managed centers in general regarding client perceptions of the health care delivery. Bagwell (1987) evaluated the clients presenting at the Clemson University Nursing Center for health care and teaching over a three month period in 1986. The 78 respondents to a questionnaire ranged from one to 63 years. The average satisfaction scores ranged from 43 to 64 with eighteen respondents being 'very satisfied' and 46 being 'satisfied' based on assigned categories of very satisfied, satisfied, dissatisfied, and very dissatisfied. Certain differences were noted between client groups. Adult clients were more satisfied than parents in several areas: courtesy of the staff, more suggestions were given to improve health, and feeling less rushed.

Summary

Women's utilization of health care services becomes more unique as they age. This uniqueness is shaped by their longevity, increased number of chronic diseases, perceptions of health and decreased financial support. This uniqueness, in turn, forms and influences elderly women's health care needs, types and locations of health care facilities chosen, and the frequency of health care visits.

Nurse managed clinics are currently supplying the health care needs to certain groups of elderly, poor and disadvantaged. An exploration of the clients who use these clinics is essential to adequately supply these services and plan for the future needs of these clinics. The characteristics of this population, their health care

needs, reasons for choosing the clinic and their perceptions of the services supplied by these clinics will be needed for accurate planning of future needs.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to explore the reasons why older women use nurse managed clinics and, in particular, one specific nurse managed clinic. The research questions developed for this study were designed to explore: (1) the areas of health care this group of elderly women received at the nurse managed center, (2) the reasons that elderly women gave for utilizing the nurse managed center that they have chosen, and (3) the perceptions of care of the women who have visited this clinic.

The Andersen Model (Andersen & Newman, 1973) was chosen as the conceptual model to guide this exploratory study. This health care utilization model was useful in exploring individual's choices of health care based on individual health care determinants.

This chapter describes considerations given to this study in the areas of research design, sampling techniques and instrumentation, protection of the subjects, and data collection and analysis.

Research Design

An exploratory design was chosen for this study since little was known about elderly women's perceptions of nurse managed centers in general (Riesch, 1992). In addition, little was known about the nurse managed center chosen for the study in terms of what type of clients

used the services available at this center, why clients chose this particular nurse managed center, what services the clients received there, and how they perceived those services.

Both a questionnaire and a structured interview format were chosen to answer the research questions for this study. The written questionnaire portion was used to elicit sociodemographic characteristics while the structured interview was used to answer the research questions of this study. During the interview portion of the study, an interview guide (Appendix D) with a structured format was used to elicit answers regarding the categories of: (1) types of health care services received at the center, (2) reasons for utilizing this particular health care center, and (3) perceptions of services received. This portion of subject participation was audiotaped.

Sample and Setting

A sample of 20 elderly women was chosen using convenience sampling from women visiting a nurse managed health care center during a one month period. The criteria for selection were that the participants spoke English, were oriented to time, place and person, were female, and were at least 65 years of age. The study activities were described to the individuals chosen. When their agreement to participate was given, the participant was given time to fill out the written part of the questionnaire which included an explanation of the study, their role in the study and the benefits and risks of participation. During this time period, the Short Portable Mental Status Questionnaire (SPMSQ) (Appendix

E) was given to the possible participants to ascertain that they were mentally competent to give their consent to participate. A scoring of 2 errors or less, on a ten-item scale, was viewed acceptable for inclusion of the participant in the study. These women were then interviewed privately, by the same researcher, in a single sitting lasting less than 30 minutes.

The site for this study was at a senior neighborhood center in an urban setting which included a nurse managed clinic for senior citizens. In addition to a clinic, this center provided such services as community social activities, meals, and social services.

Protection of Human Subjects

Throughout the study, identities of the participants were kept confidential by coding interview results and questionnaires. No identification other than coding numbers was present on the transcriptions and questionnaires. After the interviews were transcribed the audiotapes were erased or destroyed. Access to the transcriptions and questionnaires was restricted throughout the study. This study was deemed exempt from the need for informed consent by the College of Nursing and the University Medical Center Human Subjects Committee therefore, a disclaimer preceded the questionnaire the participants read at the beginning of the study. Willingness to respond to the questionnaire constituted agreement to participate in the study.

Instrumentation

An exploratory approach was taken for this study in an attempt to explore this little known area of utilization of health care services at a neighborhood health center. A questionnaire for retrieval of demographic data was formulated. An interview guide was developed to elicit responses to the research questions proposed as the basis for this study.

The structured interview guide was used to provide some control over the direction of the interview while encouraging as much response from the participants as possible. Open-ended questions were presented to the participant in an order from general questions graduating to more specific. The interviewer asked the questions precisely as designed with repetition as necessary. When scant response resulted the interviewer encouraged a broader response with a comment such as 'tell me more about...'.

A pilot test was performed on the interview guide with subjects similar to those to be employed in the study. This pilot testing allowed for identification and correction of design problems, best sequence of questions, and the appropriate procedure to employ during the interview (Burns & Grove, 1987).

The Short Portable Mental Status Questionnaire (SPMSQ)(Kane & Kane, 1981), an instrument used to detect the presence and degree of intellectual impairment, was utilized in this study to determine whether a potential participant was oriented to time, place, and person. This determination was necessary to evaluate competence and reliability of

the participants responses. The SPMSQ was initially designed to meet the needs of clinicians who desired an instrument to assess the presence of organic brain deficit in the elderly (Pfeiffer, 1975). The SPMSQ was studied for validity between one survey of community-residents (N = 926) and two elderly non-random populations: patients referred to clinic for evaluation (N = 141) and those living in institutions (N = 102). In comparing the distribution-of-error scores, a striking difference was noted between the survey population and the non-random populations which tended to give face validity to the SPMSQ as a measure of organic impairment. Validity of the SPMSQ was also undertaken with two studies to compare the SPMSQ results with the clinical psychiatric diagnosis. In the first study (N = 133) there was 92% agreement between the SPMSQ score and the clinical diagnosis when the SPMSQ indicated clinical impairment. When there was either no impairment or only mild impairment indicated by the SPMSQ, there was 82% agreement with clinical diagnosis (Chi^2 = 63.35, df = 1, p = .001). In the second validity study (N = 80), the total error score from the SPMSQ was compared with the clinical diagnosis. There was 88% agreement from the SPMSQ score and the clinical diagnosis when the SPMSQ indicated moderate to severe impairment (Chi^2 = 11.48, df = 1, p = .001). Reliability of this instrument was also studied by Pfeiffer (1975). Test-retest correlations between two groups of subjects (n = 30; n = 29) were 0.82 and 0.83 respectively.

Data Collection

Women were recruited for this voluntary study prior to their appointment at the nurse managed clinic. It was determined from initial questioning that the client spoke English and was 65 or older. A verbal description of the study was given to the individual and if an agreement was reached that she would participate, then the Short Portable Mental Status Questionnaire (SPMSQ) was delivered. The questionnaire was then administered to the participant. The interviewer remained nearby to answer questions if needed. After the questionnaire was completed, the participant was taken to a quiet area for the interview portion.

The interview portion of the study was conducted by the same interviewer for all participants. The answers to the interview were recorded on audiotape for later transcription and study. All participants of the study were interviewed within a four week period of each other.

Data Analysis

As an exploratory study, the demographic data from the written questionnaire was analyzed descriptively. Age, number of years completed in school, and number of visits to the health care center were analyzed for measures of central tendency and frequency distribution. Ethnic background, marital status, and type of health insurance responses were compiled to determine the variation of responses. Household finances, health perception, and response to a statement on

satisfaction of services received were analyzed for variation of response to questions with Likert-type choices.

Following transcription of the taped interviews, content analysis was performed within the three areas of the research questions: (1) types of health care received at the center, (2) reasons for choosing this particular center, and (3) perceptions of care received. When possible, like answers from the interviews were compiled for tabulation. When answers were not so readily tabulated, phrases and words from each interview were selected as representative of the answers to the interview questions. These were compiled from all the interviews and patterns were extrapolated. Like patterns were clustered until categories emerged from the interview answers. These, in turn, were analyzed for interpretation and meaning.

Trustworthiness of Data

Validity of the data is essential for a study to be of any value. Several approaches to validity in a qualitative study can be employed even though the typical measures employed in a quantitative study are not accessible. The researcher must be vigilant to the possibility that a researcher working alone may develop a bias on the study topic. To prevent this, care is taken to avoid systematic bias due to the elimination of data. Conclusions of findings should be avoided until all data are collected and analyzed. Intersubjectivity can also be considered validation of a study. Intersubjectivity, meaning evidence and knowledge claims that can be corroborated by others (Gortner &

Schultz, 1988), was evaluated in this study by looking for repeating themes or patterns in the interviews. In addition, interrater reliability was employed. Interrater reliability was useful in comparing the degree of consistency between two raters independently reviewing data (Burns & Groves, 1987). Two reviewers were selected from nurses currently working with the elderly and who had participated in the care of clients at this center. These reviewers were asked to review 10% of the patterns that the researcher had selected from highlighted statements in the transcriptions of the study participants interviews. Categories chosen by the researcher were also given and the reviewers were then asked to cluster the patterns under the categories that they felt were appropriate. Each reviewer's tabulations were compared individually to the researcher's tabulations to compute an index of equivalence or agreement. The higher this type of reliability coefficient, the greater degree of equivalence there is (Polit & Hungler, 1989). When more than one observer scores a phenomenon in a congruent fashion, the more likely it is that the scores are accurate and reliable. An agreement of 70% of patterns to categories between the reviewers and the researcher was felt to be adequate to support interrater reliability.

Summary

This research project has been described with particular emphasis placed on the choice of participants to be studied and approaching this project employing an exploratory design. Viewing the utilization of

health care services by elderly women in a community setting presents a challenge. To approach this challenge, utilization of an exploratory and content analysis design encourages the participants personal view of their utilization of health care services and perceptions of this care.

CHAPTER IV

RESULTS OF DATA ANALYSIS

Introduction

The analysis of the data collected from the 20 elderly female study participants, with SPMSQ scores of two errors or less, and who completed questionnaires and were interviewed for this study is presented in this chapter. Characteristics of the sample population and findings related to each research question are presented. One additional participant's responses were eliminated from incorporation in this study after discovery that her only attendance at the clinic was solely for a student initiated physical examination.

Characteristics of Sample

Of the 20 participants included in this study, the median age was 77 with a minimum age of 65 and a maximum age of 95. Twelve participants completed 12 years in school while four completed less than 12 years and four completed more than 12 years. Seventy-five percent or fifteen participants described their ethnic background as American with two as Mexican Americans and one each as European, African American and Middle Eastern background. Thirteen participants were widowed with four being married and three divorced (Table 1).

As expected, Medicare, with and without additional insurance, comprised the majority or 75% of the responses regarding what type of

Table 1. Demographic characteristics of study participants.

Variables	Study participants (N = 20)	
Years in School	**Frequency**	**Percentage**
3	1	5.0
7	1	5.0
8	1	5.0
9	1	5.0
12	12	60.0
14	2	10.0
15	1	5.0
16	1	5.0
(*M* = 11.5, *SD* = 2.9)		
Ethnic Background		
American	15	75.0
Mexican American	2	10.0
European	1	5.0
African American	1	5.0
Middle Eastern	1	5.0
Marital Status		
Married	4	20.0
Widowed	13	65.0
Divorced	3	15.0
Health Insurance		
Medicare	1	5.0
Medicare with supplement	3	15.0
Medicare with AHCCCS	3	15.0
Medicare with other	5	25.0
Medicare with self pay	3	15.0
AHCCCS	2	10.0
Self pay	1	5.0
Other insurance	2	10.0

health care insurance coverage they had. Ten percent of the respondents indicated AHCCCS as their only insurance, 5% were self pay and 10% indicated other insurance (Table 1).

In response to the question of how many times they used the services at this center in the last year, 7 participants responded with less than 10 visits, 11 with 10 to 25 visits, and 1 participant with 50 visits in the last year.

Three questions were asked with a Likert-type response. When asked about household finances, 13 indicated they had enough money to pay bills with a little extra, 4 indicated they had enough money to do whatever they wanted, and 2 participants chose the response of barely making ends meet. One participant did not respond to this question. Regarding health perception, 85% of the participants responded positively with 10 selecting moderately healthy, 5 choosing very healthy, and 2 indicating they were extremely healthy. In addition, 2 chose the response of somewhat healthy and 1 chose the response of not at all healthy. Nineteen participants responded with a *very satisfied* when asked how satisfied they were with the services received at this clinic. The final participant responded with a response of *satisfied* (Table 2).

Table 2. Demographic characteristics of household finances, health perception, and satisfaction of services of study participants.

Variables	Study participants (N = 20)	
Household Finances	**Frequency**	**Percentage**
Has enough money to do whatever we want.	4	20.0
Has enough money to pay bills with a little extra.	13	65.0
Barely makes ends meet.	2	10.0
Does not have enough money to pay bills.	0	0
	(One value missing)	
Health Perception		
Extremely	2	10.0
Very	5	25.0
Moderately	10	50.0
Somewhat	2	10.0
Not at all	1	5.0
Satisfaction of Services		
Very satisfied	19	95.0
More than satisfied	0	0.0
Satisfied	1	5.0
Somewhat dissatisfied	0	0.0
Very dissatisfied	0	0.0

Results Related to Research Questions

The responses to each of the 15 interview questions were evaluated individually and then collectively within three groups which related to the three research questions of this study. Sample responses to each question on the interview guide are given in Appendix F. Initially individual words, phrases, and sentences of repeating patterns or themes were extrapolated from the individual interview questions. Categories were developed from these pattern groupings which were then combined with the results from the other interview questions related to the same research question. Final category groupings were developed for each research question.

Research Question 1.

What health care is this select group of elderly women receiving at the nurse managed center?

Interview questions related to this research question asked for information from the study participants regarding what services they requested from the nurses at this center in the last year and why they came to the clinic this past week. They were also asked to elucidate on one reason or problem they used the clinic for in terms of whether the problem was a longstanding one and if they had been seen for this problem at the clinic before the week of the interview. A final area addressed for this research question was to explore what the nurse practitioner at the clinic did for the patient during the year and specifically on their most recent visit.

In the area of services requested by the participants of this study, many responses dealt with the hands-on parts of physical assessment and monitoring of a condition on an ongoing basis such as blood pressures, weight, general checkup, a physical, and heart monitoring. There were also several requests for evaluation of a physical need such as a '...lump on my collar bone...' and '...something in my eye...'. One of these resulted in a referral to the client's physician. Another pattern noticed was requests for information regarding a clients own needs, spousal health needs, comparing notes from a recent physician visit, and requests for information regarding flu shots, other health services in the city and medication information.

Responses regarding the participants most recent visit to the clinic elicited similar physical assessment needs as from those needs requested during their visits throughout the year. In addition, three participants noted that there was no specific need for using the clinic but that they came for other reasons such as 'I like to see the nurse and I like to get my blood pressure' and 'I didn't come for any reason. I had to bring something over to the gardener ... so I just stopped'.

Of the 20 study participants, 19 stated that they had been seen at the clinic for their blood pressure. When asked if this was a longstanding problem only 10 indicated that it was. Of those 10 indicating that their blood pressure was a longstanding problem, the time span for having this condition ranged from a few months to 40 years. Eight indicated that they had been seen at this clinic before this week for this problem.

Two interview questions encouraged descriptions of the activities that the nurse performed for the participant in the clinic. As noted before, physical assessment and monitoring items were mentioned such as blood pressure, weight, temperature, height, checking or listening to the heart, pulse rate, and getting a physical. This area of physical assessment and monitoring was expanded with these questions by numerous comments from the participants regarding the nurse eliciting information from the clients regarding how they were, what medications they were on, if they had changed any medications since the last visit, and who their physician was. Obtaining information from the nurse was also mentioned frequently as a function the nurse performed during the visit on topics such as medications, what the medications were for and how to use them, how to obtain information through the medical library, and advising a client regarding things that she was worried about. Items that related to the nurse giving the clients emotional support were also mentioned such as 'I suppose counseling ... I was newly widowed and (the RN) was very nice about it' and 'Well she bolsters my ego. It improves my self-esteem.'

The patterns that were observed with this group of interview questions were sorted into six categories. These categories were: (1) physical assessment and monitoring; (2) health care information; (3) evaluating a physical need; (4) referral; (5) emotional support; and (6) socialization. Examples of these categories are in Table 3. Interrater reliability for these categories was 74%.

Table 3. Categories of health care received at the nurse managed clinic.

	Frequency of Response
Physical assessment and monitoring	
Blood pressure	53
Weight	22
Heart monitoring	21
Physical examination	3

Health care information

I wanted to know if they gave flu shots.

Check on the medication from the pharmaceutical dictionary that the nurses have.

She gave me instructions on what to take.

... any information they could give me about general health services in the city.

Evaluating a physical need

I got something in my eye.

... had her look at a lump on my collar bone.

Referral

She suggested an appointment with my AHCCCS select.

She told me to call the doctor.

Emotional support

My husband came down with a very serious illness in his bones ... I talked to her about that.

I was newly widowed and (the RN) was very nice about it.

She bolsters my ego ... improves my self esteem.

Socialization

I like to see the nurses.

Well I didn't come for any reason. I had to bring something over to the gardener ... so I just stopped.

... my friend here was going to have her blood pressure checked so I decided I would.

Research Question 2.

What are the reasons/factors expressed by clients for utilizing the nurse managed center and for their choosing this site for their health care needs?

Participants in this study were asked why they choose this center for their health care needs, whether those services were available elsewhere, and if they had a primary source of health care. In addition, they were also asked why they chose this clinic for this week's visit instead of their other source of health care.

In response to an interview question regarding why clients chose this center for their health care needs, the majority of answers involved a form of convenience. These comments centered around living close by, convenience in coming to this clinic because they were at the center for other reasons, and not having to make an appointment to use the clinic. A pattern of reliability emerged with comments such as '... it's a very good clinic,' '... I find the people very professional,' and 'I prefer the nurses to the doctors.' Familiarity and comfort emerged as a pattern with comments such as '... I like it here' and 'It's very pleasant.'

Nine participants responded positively to the question of whether the services they requested at the center were available elsewhere. Their own physicians offices, the Red Cross, churches and firemen were indicated as places for obtaining the services they requested at the center. The remaining responses indicated that the majority of participants did not know of other places to request these services.

Of the 20 participants interviewed, all of them indicated that they had a primary care provider.

The final area approached in this research question was to ascertain why the participants chose this clinic for this weeks visit instead of their other source of health care. A similar group of patterns emerged as had been noted earlier. The convenience of living close by, not having to make an appointment, and 'less hassle' were among the comments. Cost was also a consideration mentioned for using this clinic. 'It's the only one I've ever come to ...,' '... not close by, but I have my friends here,' and '... used to (the nurse practitioner) ... to your own people' indicated that participants of the study used this clinic because of familiarity and a degree of comfort in coming here. Specific health care needs were also cited along with one comment regarding the reliability of the personnel in the clinic with the comments: 'Because I trust this clinic, I trust this nurse. I have a great deal of faith in the nurse practitioners that have worked on me in the past. I've had my physicals here. I don't, I get a much better physical here from the nurse practitioner than I ever got from any doctor that I went to.'

The patterns that emerged from the exploration of this research question were sorted into five categories: (1) convenience; (2) cost; (3) familiarity/comfort; (4) health care need; and (5) reliability. Examples of these categories are in Table 4. The interrater reliability for these categories was 93%.

Table 4. Categories of reasons/factors for utilization of the nurse managed clinic.

Convenience
I live across the street.
... this is more available to me.
... handy ... lot less hassle to come here.
Cost
I don't have to go and pay.
I can only get an emergency appointment if I go through the Emergency Room ... AHCCCS won't pay for it.
Familiarity/Comfort
... not close by, but I have my friends here.
.. use to (the RN) ... to your own people.
It's very pleasant.
Health care need
To double check on the pressure.
I had a problem.
To get blood pressure taken.
Reliability
It's a very good clinic.
I find the people very professional.
I trust this clinic ... I have a great deal of faith in the nurse practitioners ... I get a much better physical from the nurse practitioners than I ever got from any doctor that I ever went to.

Research Question 3.

What are the clients perceptions of their health care visits to the nurse managed clinic?

Participants of this study were asked to compare the services of this clinic with similar services received elsewhere, if this facility was able to meet all their health care needs within the last year, and what they thought of the health care services received at the clinic. They were also asked to provide suggestions for any improvements to the health care services at the clinic.

The participants of this study were asked to compare the service received at the nurse managed clinic with similar services received elsewhere. Nine respondents gave positive responses such as 'very satisfactory,' 'excellent,' '... they are more detailed here,' '... these people are much friendlier,' and '... they do a great job.' Four respondents found the services comparable or equally as good as elsewhere. Six respondents felt unable to make a comparison and one respondent's verbal response on tape was unclear. When asked if the clinic was able to meet all their health care requests this year, all 20 respondents answered affirmatively.

In response to what they thought of the health care services received, 19 participants responded with degrees of satisfaction from 'fine' to 'perfect' and 'excellent'. Though there was an overwhelming pattern of satisfaction, there were additional comments with unique patterns of their own. These comments included:

They keep me from running to the doctor.

> They're very considerate and they treat us all individually, like they're concerned about each of us individually. They know us long enough and, and they really worry about us.
>
> Whenever I had a problem, whether it was physical or mental, as I had a few problems when my husband was sick and dying, the other nurse that was here before, (RN), talked to me and gave me all the time I needed and that was great.

When asked if the problem that they had come to the clinic for this week was taken care of, nine respondents answered affirmatively. Not all visits to the clinic were related to a perceived problem by the clients thus the explanation for the lack of a positive response to this question by the remaining participants.

The participants of the study were also asked for any suggestions to improve the health care services at the clinic. Two suggestions were for a PAP test and one for blood work. Other remarks included 'Psychological needs is sometimes very important to some of these elderly people...,' and the need for more information in the form of 'health care seminars,' and 'literature' on osteoporosis, arthritis and nutrition. 'More nurses' and a 'Tai Chi class' completed the range of remarks. Fifteen respondents had no suggestions and some added responses on how well the clinic was currently doing. One respondent commented that she didn't'... know how they could be improved.'

Pattern development to this research question centered around a general perception of satisfaction of health care services provided to this group of elderly females. Suggestions to improve the services

provided were limited and no suggestions focused on improvement of the staff though there were several suggestions to increase the services provided.

Summary

Twenty elderly females who utilized the clinic at the senior citizen's center were participants in this study. Demographics regarding their age, number of years in school, ethnic background, insurance coverage, number of visits to the clinic in the past year, household finances, perception of health, and satisfaction with services were analyzed.

After analysis of the interviews, patterns emerged and were sorted into categories related to the three research questions. The categories that emerged in relation to the health care received in the select group were: physical assessment and monitoring; health care information; evaluating a physical need; referral; emotional support; and socialization. The following categories emerged in relation to the reasons clients expressed for choosing this particular site for their health care needs: convenience; cost; familiarity/comfort; health care need; and reliability. The main pattern emerging from the area of client perceptions of their visit to the clinic was satisfaction.

CHAPTER V

DISCUSSION AND CONCLUSIONS

This research was designed to categorize patterns associated in the utilization of health care in a select group of elderly women. The conclusions of this research are presented in this chapter in the following sections: research questions, integration of findings, study limitations, implications for nursing and research, and summary.

Research Questions

Health Care Received

The utilization patterns that emerged from this research correlate well with the individual determinants from the Andersen Model (Figure 1, page 19). The perceived needs of new symptoms and followup for known diagnoses directed many of the visits to the clinic as defined by the categories of physical assessment and monitoring, evaluating a physical or health care need, and referral. The category of health care information, another perceived need, was also seen as a frequent determinant of a visit to the clinic. With this size of sample the level of education was not conclusive in determining clinic use as the Wolinsky and Johnson (1991) research had.

Emotional support, a category developed within this research, may reflect Andersen's predisposing determinant of belief, specifically a client's attitude toward the role of the nurse practitioner. Receiving emotional support from the nurse practitioner was expressed with: 'She

bolsters my ego ... improves my self esteem' and 'My husband came down with a very serious illness in his bones ... I talked to her about it.' These study participants had their own health care providers but saw nurse practitioners as offering something unique, different, and desirable (Utley, Hawkins, Igou, & Johnson, 1988).

The categories of health care received (physical assessment and monitoring, health care information, evaluating a physical need, referral, emotional support, and social support) were supported in studies by Parrinello and Witzel (1990) and Pulliam (1991).

Reasons/Factors for Site Selection

Enabling determinants of health care utilization were expressed in the cost and convenience categories uncovered in this study. The cost category was present even though all 20 participants indicated they had a primary care provider. Two respondents did indicate that they barely had enough money to make ends meet and one was totally self pay for health care services. Still cost was a reason or factor indicated for using the nurse managed clinic (NMC).

The most frequent determinant for selection of site was expressed in the convenience category. Living nearby, not having to make an appointment, less hassle, and the longer distance to the physician's office were indicated as reasons for choosing this site. Congruence is present with Pulliam's study (1991) in finding that the importance of location was a frequent response.

A number of responses from the interview indicated that the participants frequented the center which housed the clinic for other

reasons and that incidentally visiting the clinic was due to familiarity or comfort, another category developed from the study. Visits to the clinic often coincided with trips to the center for ceramics or dance classes and other social activities. This use may have a reflection on the age of the group studied and the fact that 85% of those studied were either widowed or divorced.

Reliability, an attitude toward health services in Anderson's predisposing beliefs, was also a reason for choosing this NMC. This is consistent with findings from Pulliam (1991) whose participants appreciated the referrals made for problems beyond the scope of the nurse practitioners practice.

Perceptions of Health Care Visits

The perceptions of the participants of the study on their health care visits to the center mainly reflect the beliefs of the clients regarding their values and attitudes toward health services. The main category elicited from the study regarding this perception was of satisfaction. Age is often associated with positive satisfaction scores (Bagwell, 1987; Locker & Dunt, 1978; Nice, Butler & Dutton, 1983), however, and there is a tendency by study participants to avoid being critical of a service provided by someone who is liked (Locker & Dunt, 1983). Nonetheless, the participants added fullness to their perceptions of services at this clinic with such comments as 'They keep me from running to the doctor'.

Suggestions to improve services were few with little overlap except in the area of wanting more information on health care issues

such as 'psychological needs,' 'osteoporosis,' 'arthritis,' and 'nutrition.'

Integration of Findings

Data from research question 1 indicate that individuals come to this clinic for care that can be provided by other health care providers, such as a community health care nurse. Few areas of care were noted where an actual nurse practitioner (NP) was required. The NP at this clinic was not being utilized as a primary care provider (PCP) but more as an adjunct to the PCP or a provider of secondary illness management. This suggests areas for exploration: clients' knowledge of the role of an NP; how does the NP educate clients on how to utilize the NP; restrictions that limit the NP role in this clinic, such as reimbursement issues and the high usage of managed health care groups within this population group; and the nursing care needs that a nurse managed clinic can provide for this population group. The prevalence of a large number of managed health care groups in this community is important in light of the proposed health care reform where such groups may be even more prevalent. Nursing must define their roles and determine which nursing groups are best suited to perform these roles and how they will be reimbursed (Fagin, 1990). Nursing groups are currently developing models to look at this population segment in terms of health care needs and forms of reimbursement.

Data from research question 2 indicate that clients come to this clinic although they all indicated that they have other health care

providers and all but one respondent had health care insurance. The question this raises is how much weight can be placed on the categories for using this clinic of convenience, cost, and familiarity? If this clinic were not available, would the client make an appointment with their primary health care provider (PCP) or not seek health care at all? The responses of convenience and cost suggest the latter choice might be the result. With convenience as the main reason for choosing this clinic, a look at this survey group suggests that elderly women, the majority of whom are widowed or divorced, may value a choice in health care providers, and perceive a need not to travel a longer distance for health care. Not explored with this research project is the possibility that a gap exists in health care coverage that is not met solely by having a primary care provider. Decreased visits to physicians in the Johnson Foundation survey (Freeman et al., 1990) was noted although reasons for this trend were difficult to explain. More exploration is needed in the factors that promote the utilization of this clinic.

Study Limitations

The sampling design used in this research may have introduced limitations to the conclusions that could be drawn from this study. The sample was one of convenience and consisted of 20 elderly subjects who were women from a single senior citizen center clinic. Conclusions made from this study may not be generalizable to other clinics associated with senior citizen centers or other groups of similar age and gender.

Assumptions made for this study were that the participants would reply truthfully and without bias.

Implications for Nursing and Research

As a result of this study there is increased evidence to support the clinic at this senior citizens center. It clearly provides a service for the elders who use this clinic even over other sources of health care that are available to them. This study provides support for the need of elders to have choice in their health care services of a kind that is low in cost and convenient to their home and social location. Additional services could be added to this clinic and others similar to it in terms of health education classes of the clients' choosing. An information section could be added to this clinic with fliers from various health associations regarding health issues chosen by the clients attending the clinic. Another recommendation would be to consider an approach in dealing with depression, an issue suggested by one participant in the study. As funding is a consideration, a peer counseling service would be a suggested approach (Pulliam, 1991).

Suggestions for further research include replicating this study with a larger group of elders, including males, from various senior citizen centers where clinics are available. Seasonal changes in the members of this community need to be evaluated by surveys planned throughout the year. Additional issues need to be addressed to more fully understand elders' choice of a health care site and what specific care they need to fill any gaps in their health care coverage. Within

this focus, determining elders' perception of the clinics purpose (Pulliam, 1991) is warranted. As health care needs and health insurance coverage change within the elderly, repeat interpretation of needs would be indicated by periodic studies.

Summary

Study of the utilization of this NMC by elderly women reflected multiple individual determinants for choosing this site for health care. Perusal of the data collected at this clinic site provided no discrepancies from current literature but provided insight into utilization patterns particular to one site and one utilization group. The uniqueness of elderly women provides a challenge when proposing and implementing health care services which must be addressed when planning to provide their future health care.

APPENDIX A:

HUMAN SUBJECTS COMMITTEE EXEMPTION

Human Subjects Committee

THE UNIVERSITY OF
ARIZONA
HEALTH SCIENCES CENTER

1690 N. Warren (Bldg. 526B)
Tucson, Arizona 85724
(602) 626-6721 or 626-7575

September 21, 1993

Eileen Mechling, B.S.N., R.N.
College of Nursing
Adult Health Nursing
Building 203, Room 427
Arizona Health Sciences Center

RE: NURSE PRACTITIONER CLINIC UTILIZATION BY ELDERLY WOMEN

Dear Ms. Mechling:

We received documents concerning your above cited project. Regulations published by the U.S. Department of Health and Human Services [45 CFR Part 46.101(b)(2)] exempt this type of research from review by our Committee.

Thank you for informing us of your work. If you have any questions concerning the above, please contact this office.

Sincerely yours,

William F. Denny, M.D.
Chairman,
Human Subjects Committee

WFD:sj

cc: Departmental/College Review Committee

APPENDIX B:

HUMAN SUBJECTS REVIEW: COLLEGE OF NURSING

College of Nursing

THE UNIVERSITY OF
ARIZONA
HEALTH SCIENCES CENTER

Tucson, Arizona 85721
(602) 626-6154

MEMORANDUM

TO: Eileen Mechling, BSN, RN

FROM: Leanna Crosby, D.N.Sc., R.N. Director of Intramural Research

DATE: September 30, 1993

SUBJECT: Human Subjects Review: "Nurse Practitioner Clinic Utilization by Elderly Women"

Your research project has been reviewed and approved by William Denny, M.D., Chairman of the University of Arizona Human Subjects Committee, and deemed to be exempt from review by their full committee. You will be receiving a confirmation letter from Dr. Denny. In addition, your project has been reviewed and approved by the College of Nursing Human Subjects Review Committee.

We wish you a valuable and stimulating experience with your research.

LC/ms

APPENDIX C:

SUBJECT DISCLAIMER AND QUESTIONNAIRE

NURSE PRACTITIONER CLINIC UTILIZATION BY ELDERLY WOMEN

QUESTIONNAIRE

Women who are currently 65 or older are being invited to voluntarily complete this questionnaire. This questionnaire is part of a study to evaluate the health care utilization patterns of women in your age group at this facility. After you have completed this form the study investigator will be asking you some questions that will be taped. This interview will take approximately 30 minutes to complete. By responding to the questions on this form, you will be giving your consent to participate in the study. You may choose not to answer some or all of the questions. You may ask questions of the investigator and/or withdraw from the study at any time.

There are no known risks or costs to participants other than the time it takes to answer the questions. There are no known benefits to you for filling out the questionnaire and answering the questions of the interviewer other than the chance to share your ideas, which may help in evaluating the health care needs of women in your age group. Your name is not on the questionnaire and your answers will remain confidential. The only persons who will have access to your answers are the person collecting the data and the investigator. The report of the study will contain only group data and individuals will not be identified. Thank you for any consideration given this invitation to participate.

Eileen Mechling, BSN, RN
Master of Science in Nursing, GNP option student
University of Arizona College of Nursing

Please ***fill in*** or ***circle*** the appropriate answers to the following questions that best describes your situation:

1. How old are you (in years)? _____

2. Number of years completed in school? _____

3. Ethnic background? _____ (choose one)
   1. American
   2. Mexican American
   3. Mexican
   4. Hispanic (not Mexican)
   5. European (Irish, Italian, British, French, German, etc.)
   6. Asian
   7. Asian American
   8. African American
   9. Native American

4. Marital status? _____
   1. Married
   2. Widowed
   3. Never married
   4. Divorced
   5. Separated
   6. Unmarried, living with partner

5. Financially my household _____ .
   1. does not have enough money to pay bills.
   2. barely makes ends meet.
   3. has enough money to pay bills, with a little extra.
   4. has enough money to do whatever we want.

6. What type of health care insurance do you have? _____
   1. Medicare
   2. Medicare supplement
   3. AHCCCS
   4. Self Pay
   5. Other insurance

7. How many times did you use the health care services at this center in the last year? _____

8. How satisfied are you with the services you received at this clinic?
_____
   1. Very satisfied
   2. More than satisfied
   3. Satisfied
   4. Somewhat dissatisfied
   5. Very dissatisfied

9. How healthy would you say you are right now? _____
   1. Extremely
   2. Very
   3. Moderately
   4. Somewhat
   5. Not at all

APPENDIX D:

INTERVIEW GUIDE

INTERVIEW GUIDE

RQ1: Services

1. You have been to this clinic _____ times in the last year. What services did you request from the nurses at this center in the last year?

2. Why did you come to the clinic this week?

3. So you have been seen for ____. Is this a longstanding problem?

4. Have you been seen for this problem here at the clinic before this week?

5. When you visited this clinic in the past year, what was the first thing the nurse did for you?

   Then what did she do?

   Were there any other things the nurse did for you while you were here?

6. And on your visit to this clinic this week what specifically did the nurse do for you?

RQ2: Reasons

7. Why do you choose to come to this center for your health care needs?

8. Are the services you requested here available elsewhere? Where?

9. Do you have a primary care provider/physician or another source of health care that you use?

10. Why did you choose this clinic for this week's visit instead of your other source of health care?

RQ3: Perceptions

11. How do you compare the services received here with similar services received elsewhere?

12. Was this facility able to meet all your health care request(s) this year? If no, please explain.

13. What did you think about the health care services you received here?

14. Was the problem that you came for this week taken care of?

15. Do you have any suggestions to improve the health care services at this clinic?

APPENDIX E:

SPMSQ SCALE

SHORT PORTABLE MENTAL STATUS QUESTIONNAIRE (SPMSQ)

1. What is the date today (month/day/year)?
2. What day of the week is it?
3. What is the name of this place?
4. What is your telephone number? (If no telephone, what is your street address?)
5. How old are you?
6. When were you born?
7. Who is the current president of the United States?
8. Who was the president before him?
9. What was your mother's maiden name?
10. Subtract 3 from 20 and keep subtracting each new number you get, all the way down.

Acceptable 0-2 errors.

Allow one more error if subject had only grade school education.

Allow one fewer error if subject has had education beyond high school.

Allow one more error for blacks, regardless of education criteria.

APPENDIX F:

EXAMPLES OF RESPONSES TO RESEARCH QUESTIONS

EXAMPLES OF RESPONSES TO RESEARCH QUESTIONS

1. **You have been to the clinic ____ times in the last year. What services did you request from the nurses at this center in the last year?**

   They just take my blood pressure, weigh me, and answer any questions I have.

   Blood pressure most of the time cause it fluctuates so much, I like to keep a check on it. My doctor appreciates it too.

   Blood pressure. That's hypertension. That's my problem, number 1. And check on the medication from the pharmaceutical dictionary that the nurses have.

2. **Why did you come to the clinic this week?**

   Because I go to ceramics and I automatically come. I don't come for a service. I like to see the nurses, and I like to get my blood pressure. And I weigh myself.

   To have my blood pressure taken.

   Oh, because I take my blood pressure every month. And my weight.

3. **So you have been seen for ____. Is this a longstanding problem?**

   Oh yes. It started .. it, it started ... oh, before I retired, in '75, no '77. It might have been '76. In there somewheres.

   No, I have no problem with it. I just have it done. I don't want a problem.

   Yeah. Yeah, I got a tendency of having high blood pressure. But a lot of its my weight and I know this.

4. **Have you been seen for this problem at the clinic before this week?**

   Not this clinic.

   Oh yes, honey. I've been over here ever since I moved across the street. Boy, I think I must be over there 5 or 6 years.

   Yes I have.

5. When you visited this clinic in the past year, what was the first thing the nurse did for you? Then what did she do? Were there any other things the nurse did for you while you were here?

The first thing she did to me? She weighed me. We talked about how I was, and if I was had the same medication all the time. If I was taking the same thing she ---- the medication that I took. An she would answer any problems that I would ask her. Like my mother was very sick and I was asking problems like that. And my brother had cancer and I would ask her little things, you know, about my husband. And then my pills, whenever I got new pills. Which I have new pills for my bladder. I used to take Macrodantin every night. And now he gave me something else because they don't seem to be working. So I showed them to the nurse. She said they were okay.
Well the other nurse took my urine to see if I could, if I needed Vitamin C. And uhm ... I can't remember anything else.

Oh, she ah .. well she took a lot of data, and of course the blood pressure. She said it was good. So apparently the new medication is working all right.
Not too .. this, ah .. this spot tomorrow .. for a ah general checkup, for a physical, so I accepted that. I just thought, why not .. alright.
My blood pressure.

Well she .. pulled out a card with my address and etcetera on it. Then she took my weight, height, and my blood pressure .. and she need to know the medications that I was taking. And the name of my doctor.
Well what she did for me ... I was having a problem with nerves (?). She gave me some instructions on what to take.

6. And on your visit to this clinic this week, what specifically did the nurse do for you?

She again checked my blood pressure and set up an appointment for me for the student nurses. Then she had checked up to find out if I had followed through on the dental clinic business and I should discuss it with the student nurses. They may have some good suggestions for me. And uhm - that's it.

She took my blood .. the lady out there weighed me, and Joyce took my blood pressure and tested my heart. She listens to my heart everytime I come here. And everything is normal as it could be. And I go to my doctor every six months.

She took my blood pressure and listened to my heart.

7. Why did you choose to come to this center for your health care needs?

Because I live next door.

Cause I like it here.

It's very, very convenient. It's very pleasant and I find the people very professional.

8. Are the services you requested here available elsewhere?

Not that I know of.

Not as close.

Well, at my usual doctor I could but that would require a special .. ah .. another visit which would, then they both come out with all the Medicare papers and the whole nine yards. I just couldn't think .. go through that.

9. Do you have a primary care provider/physician or another source of health care that you use?

Yes.

Other than .. Well I have FHP that I go to.

Well, I have a doctor at the clinic. FHP. That I go to regularly.

10. Why did you choose this clinic for this week's visit instead of your other source of health care?

Cause it's handy to come here. Because it's a lot less hassle to come here.

Because I feel that she gives me accurate readings of my blood pressure.

Well, I live right across the street, so I walk over rather than drive.

11. How do you compare the services received here with similar services received elsewhere?

Well, I don't go anywhere else. Just here and my doctors. They are both very good.

Well these people are much friendlier.

Very good. Very good. Fine. Excellent.

12. Was this facility able to meet all your health care request(s) this year?

Yes, whatever I asked.

As much as I asked.

Yes they certainly did.

13. What did you think about the health care services you received here?

Excellent.

I think they are very good. They keep me from running to the doctor.

I think they're excellent. Whenever I had a problem, whether it was physical or mental, as I had a few problems when my husband was sick and dying of Alzheimer's and cancer, the other nurse that was here before (RN) talked to me and gave me all the time I needed and I think that was just great.

14. Was the problem that you came for this week taken care of?

Indeed, yes.

It was more, sort of a followup.

Yep. Except we couldn't find the name of the medication.

15. Do you have any suggestions to improve the health care services at this clinic?

Oh they've already opened it up three times a week instead of the one time which is really remarkable I think.
Why they even took my weight. Psychological needs is sometimes very important to some of these elderly people. You know, ah, it would be a suggestion maybe.

Not at the present, but thanks anyhow .. up to date.

Well I wouldn't know what they could do for here. I mean, not really. Cause if they go further than they are they're already almost into medicine itself. And I'm sure they would be cut off at the pass. I know she .. I've talked to her about a getting a PAP test and she said that would be available, she thought, later this year again. I've had one done a number of years ago when (RN) was still here, they did 'em with their physicals. And then they used to do blood work too that they have discontinued doing because of foulup with Medicare or something. I don't know the real reason for it was. So now you have to go, to go to your own physician for that. It's much safer to coming down here.

REFERENCES

REFERENCES

Aday, L.A., & Andersen, R. (1975). Development of indices of access to medical care. Ann Arbor: Health Administration Press.

American Nurses Association. (1985). The scope of practice of primary health care nurse practitioners. Kansas, Mo.: Author.

Andersen, R., & Newman, J.F. (1973). Societal and individual determinants of medical care utilization in the United States. Milbank Memorial Fund Quarterly, 51(1), 95-124.

Ayanian, J.Z., & Epstein, A.M. (1991). Differences in the use of procedures between women and men hospitalized for coronary heart disease. The New England Journal of Medicine, 325(4), 221-225.

Bagwell, M.A. (1987). Client satisfaction with nursing center services. Journal of Community Health Nursing, 4(1), 29-42.

Burns, N., & Grove, S.K. (1987). The practice of nursing research: conduct, critique and utilization. Philadelphia: W.B. Saunders.

Carmen, E., Russo, N.F., & Miller, J.B. (1981). Inequality and women's mental health: An overview. American Journal of Psychiatry, 138(10), 1319-1329.

Department of Health and Human Services. (1991). Health United States 1990 (DHHS Publication No. 91-1232). Washington, DC: U.S. Government Printing Office.

Enggist, R.E., & Hatcher, M.E. (1983). Factors influencing consumer receptivity to the nurse practitioner. Journal of Medical Systems, 7(6), 495-512.

Fagin, C.M. (1990). The visible problems of an "invisible" profession: The crisis and challenge for nursing. In P.R. Lee & C.L. Estes (Eds.), The Nation's Health (pp. 191-200). Boston: Jones & Bartlett.

Faulkner, A.O., & Micchelli, M. (1989). The aging, the aged, and the very old: Women the policy makers forgot. Women & Health, 14(3/4), 5-19.

Freeman, H.E., Blendon, R.J., Aiken, L.H., Sudman, S., Mullinix, C.F., & Corey, C.R. (1990). Americans report on their access to health care. In P.R. Lee & C.L. Estes (Eds.), The Nation's Health (pp. 309-319). Boston: Jones & Bartlett.

Gaynor, S.E. (1990). The long haul: The effects of home care on caregivers. IMAGE, 22(4), 208-212.

Gortner, S.R. & Schultz, P.R. (1988). Approaches to Nursing Science Methods. IMAGE, 20(1), 22-24.

Held, P.J., Pauly, M.V., Bovjberg, R.R., Newmann, J., & Salvatierra, O. (1988). Access to kidney transplantation. Archives of Internal Medicine, 148(12), 2594-2600.

Hill, J. (1986). Patient evaluation of a rheumatology nursing clinic. Nursing Times, 83(27), 42-43.

Jacobs Institute of Women's Health. (1992). The women's health data book: A profile of women's health in the United States. Washington, DC: Author.

Kane, R.A., & Kane, R.L. (1981). Assessing the elderly: A practical guide to measurement. Lexington, MA: Lexington Books.

Lempert, L.B. (1986). Women's health from a woman's point of view: A review of the literature. Health Care for Women International, 7(3), 255-275.

Leslie, L.A., & Swider, S.M. (1986). Changing factors and changing needs in women's health care. Nursing Clinics of North American, 21(1), 111-123.

Locker, D., & Dunt, D. (1978). Theoretical and methodological issues in sociological studies of consumer satisfaction with medical care. Social Science & Medicine, 12(4A), 283-292.

Maynard, C., Litwin, P.E., Martin, J.S., & Weaver, W.D. (1992). Gender differences in the treatment and outcome of acute myocardial infarction. Archives of Internal Medicine, 152(5), 972-976.

Melanson, P.M., & Downe-Wamboldt, B. (1987). Identification of older adults' perceptions of their health, feelings toward their future and factors affecting these feelings. Journal of Advanced Nursing, 12(1), 29-34.

National Center for Health Statistics. (1989). Monthly Vital Statistics Report, 38(8), 14-19.

Nice, S., Butler, M.C., & Dutton, L. (1983). Patient satisfaction in adjacent family practice and non-family practice Navy outpatient clinics. The Journal of Family Practice, 17(3), 463-466.

Office of Technology Assessment. (1986, December). Nurse practitioners, physician assistants, and certified nurse-midwives: A policy analysis (Health Technology Case Study 37, OTA-HCS-37). Washington, D.C.: U.S. Government Printing Office.

Older Women's League. (1989). The picture of health for midlife and older women in America. Women & Health, 14(3/4), 53-74.

Parrinello, K.M., & Witzel, P.A. (1990). Analysis of ambulatory nursing practice. Nursing Economics, 8(5), 322-328.

Pfeiffer, E. (1975). A short portable mental status questionnaire for the assessment of organic brain deficit in elderly patients. Journal of the American Geriatrics Society, 23(10), 433-441.

Polit, D.F., & Hungler, B.P. (1989). Essentials of nursing research: Methods, appraisals, and utilization. (2nd ed.) Philadelphia: Lippincott.

Public Health Services. (1985). Women's health: Report of the public health service task force on women's health issues. (Vols.1-2). (DHHS Publication No. 1985-461-950:37708). Washington, DC: U.S. Government Printing Office.

Pulliam, L. (1991). Client satisfaction with a nurse-managed clinic. Journal of Community Health Nursing, 8(2), 97-112.

Riesch, S.K. (1992). Nursing centers. In J.J. Fitzpatrick, R.L. Taunton, & A.K. Jacox (Eds.), Annual review of nursing research, (Vol.10, pp. 145-162). New York: Springer.

Safriet, B.J. (1992). Health care dollars and regulatory sense: The role of advanced practice nursing. Yale Journal on Regulation, 9(2), 417-487.

Spitzer, W.O., Sackett, D.L., Sibley, J.C., Roberts, R.S., Gent, M., Kergin, D.J., Hackett, B.C., & Olynich, A. (1974). The Burlington randomized trial of the nurse practitioner. The New England Journal of Medicine, 290(5), 251-256.

Steingart, R.M., Packer, M., Hamm, P., Coglianese, M.E., Gersh, B., Geltman, E.M., Sollano, J., Katz, S., Moye, L., Basta, L.L., Lewis, S.J., Gottlieb, S.S., Bernstein, V., McEwan, P., Jacobson, K., Brown, E.J., Kukin, M.L., Kantrowitz, N.E., & Pfeffer, M.A. (1991). Sex differences in the management of coronary artery disease. The New England Journal of Medicine, 325(4), 226-230.

Thompson, P.G. (1990). Aging in the 1990s and beyond. Occupational Medicine: State of the Art Reviews, 5(4), 807-816.

Tobin, J.N., Wassertheil-Smoller, S., Wexler, J.P., Steingart, R.M., Budner, N., Lense, L., & Wachspress, J. (1987). Sex bias in considering coronary bypass surgery. Annals of Internal Medicine, 107(1), 19-25.

Utley, Q.E., Hawkins, J.W., Igou, J.F., & Johnson, E.E. (1988). Giving and getting support at the Wellness Center. Journal of Gerontological Nursing, 14(6), 23-25.

Verbrugge, L.M., & Wingard, D.L. (1987). Sex differentials in health and mortality. Women & Health, 12(2), 103-145.

Ware, J.E., Wright, W.RE., Snyder, M.K., & Chu, G.C. (1975). Consumer perceptions of health care services: Implications for academic medicine. Journal of Medical Education, 50(9), 839-848.

Wells, C.K., & Feinstein, A.R. (1988). Detection bias in the pursuit of lung cancer. American Journal of Epidemiology, 128(5), 1016-1026.

Wolinsky, F.D., & Johnson, R.J. (1991). The use of health services by older adults. Journal of Gerontology, 46(6), S345-S356.