A STUDY OF THE KNOWLEDGE THAT OLDER PEOPLE HAVE ABOUT MEDICARE

By

Marilynn Hutchings Hogrefe, B. S.

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APPROVED:

[redacted]

Maxine Patrick, Dr. P. H., Professor of Nursing, Thesis Adviser

[redacted]

Lucile Gregerson, M. Ed., Associate Professor, First Reader

[redacted]

May Rawlinson, Ph. D., Assistant Professor, Second Reader

[redacted]

[redacted] Assistant Professor, Third Reader

[redacted]

John Brookhart, Ph. D., Chairman, Graduate Council

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CHAPTER I

INTRODUCTION

Scope of the Problem

Health care issues are of profound interest in the world today. It is of concern not only because these issues relate to matters of life and death, but also because there is a growing awareness of health problems and health care systems. How the health care system should evolve seems to be one of the controversial problems of the time often reflecting intense differences in social philosophies.

In the United States, the concern of the public seems to be three dimensional. There is the natural concern for our own individual health and that of loved ones. There is also an increasing concern for providing adequate health services for those unable to care for themselves. The third dimension seems to be political in nature, in that, citizens are becoming concerned about environmental factors that might affect the health of its citizens.

The American people have come to regard medical care as a basic social right which should be extended to all citizens. President Johnson said when the first State Medical Assistance Plans were approved: "We are learning

to think of good health, not as a privilege for the few, but as a basic right for all." (1) In health care delivery, the concern is for comprehensiveness, continuity and co-ordination. These characteristics are based on the concepts that everyone who needs medical and related service is entitled to have them; the right service, for the right patient at the right place at the right time.

In the last decade society has been faced with inflationary costs including the rising costs for health care. The cost of health care is a concern of most citizens in the United States. Total public and private expenditures for health and medical care in the 1965 fiscal year was 38.4 billion. This is almost 6 percent of the gross national product. (2) The National Association of Insurance Commissioners reported that 200 recent studies which investigated rising costs of hospitalization agreed that the major reasons for increased health costs were: rising wage costs, expansion of health facilities, increased use of facilities due to chronic disease rate and increased life span of adults, and advanced technological changes. (3)

One segment of the population that has been vitally affected by the rising costs of health care has been the aged population, citizens 65 years and older. This interest in the problems of the aged gained impetus in the 1950's resulting in Congress enacting the White House Conference

Act in 1958. This Act requested that all states study the problems of their aged population for two years and share the results at a conference in 1961. (4) The White House Conference met in January, 1961, to discuss the outcome of their studies. Surveys and studies conducted throughout the nation revealed many common problems regarding the aged. It was apparent that there were interrelated factors that affected the general health and well-being of the aged population. It seemed that for many older men and women, longer life meant: shrunken incomes, increased sickness, loneliness, and fear that costly illness would force them on the indignity of public charity. The 1961 White House Conference demonstrated that the problems of the aged population were broad in scope and many were urgent in nature. Recommendations were made that more studies be done to define the problems of the aged more specifically and that appropriate action should be taken to assure that the needs of these citizens be more adequately met. (5)

Characteristics of the Aged Population as Reviewed in the Literature (Studies 1955-65)

The 1960 National Census revealed that the aged make up 9.3 percent of the population compared to four percent in 1900. (6) In 1960 there were 15 million persons aged 65 years and over in the United States and

by 1965, the number had increased to 18 million. Some 10,000 people were about 100 years old. Half of all aged persons were married and living with a spouse. One out of four elderly persons lived alone or in a boarding home. Approximately three percent of the individuals 65 years and over were institutionalized. (7)

The increase in the number of older people generally is attributed to a number of factors. (8) A primary factor has been that the number of births exceeds the number of deaths by 4.3 million to 1.4 million per year. The second major factor has been immigration. Between 1880 and 1910 when today's middle-aged and older population were born, 18 million persons immigrated to the United States. The third major factor has been the increase of the extension of life through improvements in public health, nutrition, and medical science. The total effect for the country has been an increase in life expectancy from about 40 years in 1850 to 70 years in 1960.

Health problems increase with age. Data from the National Health Survey (1957-59) revealed that about four out of five older persons have one or more chronic conditions. (9) Less than 10 percent of the population under 25 years report one or more chronic conditions and each chronic condition has in it the potential of heavy use of health services. (10) Chronic disease is debilitating

often requiring that activity be limited. The average older person is incapacitated five weeks of the year and spends two weeks in bed. (11) Persons 65 years of age and over require more than twice as much hospital care as do people under 65. Annual hospitalization rate per 1,000 people 65 years and over was 2,800 days compared to 900 days for younger people. (12)

Studies revealed that the aged population is ill more often than the rest of the population, thus health costs are proportionately higher for the aged when compared to the expenditures of the younger age groups. The question that required an answer was; Could the aged afford to pay for adequate health care?

Investigations of the income of the aged population were conducted. The income position of the aged in the United States has reflected two major trends in recent years. One, a secular decline in the labor participation rates of older men, causing many incomes to drop sharply and second, an expansion of Old Age, Survivors and Disability Insurance, (OASDI). Kreps noted in the Chamber of Commerce Task Force Report, 1961, "Of the aged aggregate money income, approximately one-third comes from earnings and more than one-third from public retirement programs. By contrast, analysis of the compositon of the aged income in 1950 reveals that aggregate earning then amounted to several times as much as benefit payments." (13)

A survey by the Social Security Administration of OASDI recipients in 1958 revealed that about three-fifths of all persons aged 65 years and older had less than $1,000 in money income and one-fifth received $1,000-2,000 per year. The remaining fifth were classified as having no income except Social Security. (14) The Survey Research Center in Michigan reported that the aged often have few assets. Equity in a home is by far the most common asset of the aged. However, more than half of the owners values their home at less than $10,000. (15), (16)

The ability of the aged to pay for health care is a primary issue. The determination of their ability to pay depends on financial resources and the demands that are made on these resources. In 1960, 72 percent of the total private expenditures for health was spent by aged persons themselves or by relatives or friends in their behalf. (17) Of the public funds expended for civilian patient care probably close to one and one-half dollars out of every five dollars goes to pay for an aged patient. (18) A 1957 study by the Health Information Foundation on resources to pay for health services among those aged 65 and over reported as follows: the older population can be divided into three groups - those who had resources from which they could meet a medical bill as large as $500; those who had no ready resources for meeting such a bill; and a smaller amorphous middle

group whose position cannot be clearly ascertained. (19)

A Social Security Administration survey of medical costs of aged persons showed that in 1962 free medical care was received by 9 percent of the aged couples; 18 percent of the single men and 15 percent of the single women. Of the persons reporting outlay for medical care the median amount was $442 for couples, $260 for single men and $282 for single women. (20) A national survey of OASDI beneficiaries by the Social Security Administration in 1957 reported that more than two-thirds of the aged married couples did not meet all of the years medical costs out of their income assets and health insurance. Medical debts were incurred by 21 percent of the couples and 12 percent of the singles. (21) The 1957 Health Information Foundation reported that 15 percent of the couples and 29 percent of the single persons having hospital episodes relied for at least part of their medical assistance on public assistance or other private and pubic agencies. They often required help from relatives. Aged persons with incomes under $2,000 were reported to have paid out 13 percent of their total yearly incomes for medical expenses including insurance premiums. (22)

The increased rate of health costs have influenced more and more people to purchase health insurance every year. In 1963, 77 percent of the population had some

form of health insurance. (23) The extent and quality of health insurance coverage of the aged is influenced by their ability to pay the premiums and the opportunities they had while employed to purchase insurance which will apply after 65, as many policies cancel upon retirement.

It is estimated that about 8.7 million persons aged 65 years and over had some protection against hospital costs as of July 1, 1961. (24) Only 38 percent of the persons who no longer were working had any health insurance, only 30 percent of those with chronic disabilities had insurance and only 32 percent of the aged 75 and over had coverage. (25) The National Health Survey (1958-60) revealed that for half the short stay hospital episodes of aged persons during a year, health insurance paid no part of the bill either because they had no insurance or coverage was limited. (26)

It seemed that health insurance for the aged was usually expensive, limited, restrictive, and often excluded pre-existing conditions or could be cancelled at the option of the insurance company. A study conducted by the National Opinion Research Center found that about half of the aged persons who did not have health insurance would have liked to have it, but just "couldn't afford it." (27), (28)

History of Federal Involvement in Health Insurance

Since 1912 the government has recognized the fact that there were citizens who could not afford medical care. (29) Serious public discussion of health insurance has erupted at different times throughout the history of the country. Possibly legislation was blocked by the resolution of the American Medical Association in 1920:

> The American Medical Association declares its opposition to the institution of any plan embodying the system of compulsory insurance which provides for medical service to be rendered contributors or their dependents, provided, controlled or regulated by any state or Federal Government. (30)

In 1950, the focus of health insurance in the Federal government was for the aged. The figures spoke for themselves particularly in regard to the fact that the "aged poor" had many neglected health needs. The Kerr-Mills bill was passed by Congress in 1960 under the Eisenhower administration. (31) This bill was designed to meet the needs of the indigent elderly. It required that individuals take a "means test", which was degrading for many people who had always been able to be financially independent. The Kerr-Mills bill required that the states allocate funds for health care which would be matched by federal funds. Many states did not allocate funds so that even though there was a law enacted to help some of the aged population there was in actuality no service being provided. (32)

In June 1965, the Senate Committee on Finance recommended a more comprehensive federal program to meet the needs of the aged. The program called for by the Senate Committee could be attained only through the Social Security mechanism. (33) In 1961, President Kennedy recommended to the Congress that health insurance for the aged by added to the Social Security system. (34) Numerous bills were introduced: King Anderson Bill, McNamara Bill, Lindsay Bill, all of which provided for health care for the aged under the Social Security system. These bills were violently opposed by the American Medical Association. (35) President Johnson's State of the Union Message in 1965 listed as an item of high priority help for the elderly in meeting their health costs. Finally, on July 30, 1965 Title XVIII (H. R. 6675) was signed into law as an amendment to the Social Security Act. This law is commonly referred to as Medicare and provides basically two programs for health care for the aged, a hospital plan and medical plan.

Statement of the Problem

Many interrelated factors account for the creation of the Medicare Program: increased longevity and limited personal resources of the aged, declining health and high medical costs, inadequacy of voluntary health insurance, and failure of public assistance provisions to reach the indigent aged.

It has been six years since Medicare was enacted. Criticisms have been leveled by many that the health needs of the aged still are not being met through the program and that the recipients knowledge of Medicare is poor. Shortly after enactment of the Medicare law, eleven nursing students did a small study of Medicare patients in a clinic in New York City in an attempt to find out what the patients knew about Medicare. Though there was a vigorous campaign at that time to educate the Medicare enrollee, the students found the 50 respondents in their student to be lacking knowledge about the insurance. (37) Attempts to evaluate the effectiveness of Medicare in meeting the needs of the aged are not reflected in the literature thus leading to the conclusion that this had not been done. Before any conclusions can be drawn about Medicare, an evaluation is necessary. Since the program is for those persons 65 years and over, it seemed that it would be beneficial to find out their opinions and understanding of the Medicare program.

Purpose

The purpose of this study was to measure the amount of knowledge people aged 65 and over have about health insurance under Social Security, commonly called Medicare.

Methodology

This study was an exploratory study utilizing a tool developed by the researcher from information provided in the Medicare handbook, "Your Medicare Handbook, Health Insurance Under Social Security." For the purpose of this study, it was assumed that all persons interviewed had received the Medicare handbook upon enrollment in the Medicare Program. New handbooks on Medicare are not given enrollees in the program unless, they are requested on an individual basis, though revisional material is mailed to them. The tool was composed of 81 fixed alternative and multiple choice response questions. (See Appendix A). It was divided into four categories: general information; questions on the Hospital Plan, or Part A; questions on the Medical Plan, or Part B; and questions on Medicare claims processing. Questions 1 to 15 related to general questions about health insurance. There were 38 questions (#16-54) relating to Part A Medicare. These were categorized into three subject areas: benefits; services; and deductible amounts. There were 22 questions (#55 to 76) that relate to Part B Medicare. Subject areas related to the Medical Plan covered: benefits; services; and deductible amounts. There were five questions (#77 to 81) that related to Medicare claims processing. Additional information was obtained regarding the respondent's age, sex, and years of schooling completed.

The questionaire was pre-tested. It was found to be clear and no revisions were made.

The tool was administered by interview to 35 persons 65 years of age and over who were citizens in the Portland-Eugene area. The criteria for selection of subjects were: white, men or women, 65 years or over, not currently ill or using Medicare benefits, living in their own home, able to communicate, and willing to participate in the study. The researcher identified herself to the subjects as a graduate student at the University of Oregon. The questions were read to the respondents by the researcher. All responses were reviewed with the respondents following the interview. The interview was approximately one hour in length.

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CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to measure the amount of knowledge people aged 65 and over have about Medicare and is directly related to the aged individual's ability to learn. Learning and the aged is a phenomenon explored by many scientific researchers. Therefore, information in the literature is extensive.

The following review of literature is intended to provide coverage of the literature in breadth, rather than in depth. The areas of the literature reviewed are; intelligence and age, types of learning, thinking, problem solving, creativity and memory.

Intelligence and Age

The study of adult intelligence is concerned with intellectual abilities, and intellectual performance from the age of biological maturity, 15 to 25 years, throughout the remainder of the life span. The concept of intelligence includes both a potential ability or a capacity and an actual ability to think, reason, and learn.

Intellectual ability is measured by achievement on selected tasks which are included in intelligence tests.

There are two ways of expressing an adult's intelligence: Intelligent Quotient (I.Q.)-Intellectual ability relative to that of his age group; and Efficiency Quotient (E.Q.) intellectual ability relative to young adults who are at the peak of their intellectual and biological efficiency. (38)

The overall effect of aging can be stated as follows: In the years between young adulthood and old age, intellectual efficiency falls from 100 to about 76. In the young adult, I.Q. and E.Q. are equivalent and mean the same thing, but for the older person the I.Q. stays more or less constant while the E.Q. diminishes steadily. Therefore, a person at the age of 20 who is measured to have average intelligence can expect to be of average ability at the age of 70. Although an older person's intelligence deteriorates relative to that of young people, it maintains its position relative to the intelligence of his age group. (39) Individual differences vary widely with physical and mental conditions.

Cross-Sectional Studies on Intellectual Functions of the Aging Adult

The literature on the effects of advanced age on intellective function of normal populations is extensive. There will be no attempt to review the very early studies cited in the literature, but it should be noted that decline in test performance has been well documented since 1920, beginning with the study of Foster and Taylor. (40)

This study compared a group of hospital patients 50 years of age and older, a younger group, and a group of school children on the Yerkes-Bridges Point Scale, an intelligence test devised in the 1920's. The test results revealed that the decreases with age were in the following areas: drawing from memory, rephrasing dissected sentences and word association. The tests which indicated an increased score with age were: vocabulary, comprehension of questions, and judgement about absurdities.

The "Stanford Later Maturity Study" by W. R. Miles, et al, at Stanford University in 1930 (41) undertook a study of motor, perceptual and mental functions tests in a two hour battery. The mental test used was an abbreviated 15 minute form of the Otis Self Administered Test of Intelligence. Some 566 subjects were tested in the age range of 20-80. The results were classified in terms of seven age groups. Marked and progressive age changes are seen in the composition of the sample in each decade from early adulthood to later life.

In 1944, Wechsler in standardizing the Wechsler-Bellevue Test (W-B) tested 1,751 persons in the New York area. (42) A stratified sample was used based on the occupation distribution of the U. S. Census. On the basis of the mean and standard deviation for the age group 20-25 years, it was noted that there is a sharp drop at age 25 in the performance scale and more of a leveling off at

that age in the verbal scale. The standardization of the Wechsler Adult Intelligence Scale (WAIS) in 1955 on 2,000 men and women ranging in age from 16-75 indicates the drop in test score begins at a later age than in the W-B and is less marked. (43)

Corsinni and Fassett (44) used the W-B to test 4,000 prisoners at San Quentin in 1953. They found a marked decline with age in three of the subtests of the performance scale and moderate decline in two of the subtests of the verbal scale while there was an increase in the information scale. These researchers concluded that general intelligence does maintain its level from early to late maturity and any increase or decrease shown in previous tests are the result of poor samples or the loading of non-intellectual factors in the testing.

The effect of aging upon intelligence scores was well illustrated by the data gathered by Doppelt and Wallace (1955) from their Kansas City sample of 475 persons aged 60 and over. (45) The WAIS was the test used to measure intelligence of these individuals. Verbal ability proved to be relatively stable, but decreasing performance scale ability was associated with increasing years. Even greater differences of performance decline was reported in a study of an aged population that was done by Eisdorfer and Cohen in 1961. (46)

Bothwinik (47) did a study of the data collected from ten representative studies of elderly subjects that had been given the W-B or WAIS subtests (1946-1963). The purpose of the study was to further substantiate the evidence supported in the literature regarding stabilization of verbal ability with age and decline in performance ability. In addition, the question as to whether all the functions measured by performance subtests decline with age was raised. A rank order of the data from the ten studies was done with the highest rank being 1 and the lowest rank 11. Information and Vocabulary subtests were always within the highest two or three ranks for all nine studies. The Picture Arrangement and Digit Symbol subtests were usually the lowest two ranked for all nine studies. It was concluded that these ranks indicated that stored information and verbal abilities are better maintained in advanced age than are psychomotor-perceptual-integrative skills.

Longitudinal Studies on Intellectual Functions of the Aging Adult

Some researchers express the opinion that longitudinal studies are more valid in investigating age changes in intellective ability. In longitudinal investigations the same people are examined during two or more periods of time, with usually a matter of years transpiring between these periods. The argument, in brief, was that age changes are measured in longitudinal studies, and age differences are measured in cross-sectional studies.

Owen's longitudinal investigation of adult intelligence has been given prominent position in the literature. (48) In 1919, 363 male freshman students at Iowa State College were given the Army Alpha Intelligence Test. In 1949-50, 127 of them were retested with the same test. The subjects were 19 years old, when initially tested and approximately 49 years old, when subsequently tested. The Army Alpha Test is comprised of eight subtests, all similar to the verbal subtests of the WAIS. Four of the 8 subtest scores were not appreciably changed with age, but four showed increases, with the largest increases related to vocabulary and information.

In 1966, Owens was able to again retest 97 of the 127 men at the age of approximately 61 years. (49) He found that none of the subtest scores had changed significantly since the testing at the age of 49.

A follow-up study of subjects included in Terman's Stanford Study of the Gifted (50) was done by Bayley and Oden. (51) The Concept Mastery Test examines the subject's knowledge of concepts in different fields through an analogies test and a synonym-antonym test. The test was administered in 1939-40 and 1951-52 to 1,103 adults born between 1903 and 1920. The subjects were from Terman's original study (N-768) plus 355 individuals who were spouses of the subjects. The average age of the subjects in the first testing was 29.5 years and 41.5 years at the second

testing. There was a highly significant increase in scores at the second testing both by the subjects of the gifted study and by their spouses. The researchers concluded that the results of this large group of superior adults give strong evidence that intelligence of the type tested by the Concept Mastery scale continues to increase at least through 50 years of age.

In 1962, Jarvik, Kallman, and Falek reported the results of a longitudinal study of twin population in New York State. (52) Intellective function was measured with four subtests of the W-B (Digit Symbol, Block Design, Similarities and Digit Span), the 1916 Stanford Binet Vocabulary Test, and a paper and pencil Speek of Tapping Test. The mean ages of the subjects at the time of the testing were 67.5, 68.4 and 75.6 years. Testing dates were 1946-49, 1948-51, and 1954-57. The investigators found no significant changes in the results at the second testing. There were significant changes from the first testing to the third testing on speeded motor tasks (over 60%), while over 20% showed increases on vocabulary tests. In the remaining tasks, approximately 42-63% failed to demonstrate a change in performance.

Because of the results of Jarvik et al study in 1962, Eisdorfer decided to do a follow-up study of elderly subjects tested at Duke University in 1960. (53) In the original study, 255 aged individuals were tested with the

WAIS and additional psychological studies. On the basis of this cross sectional study, Eisdorfer concluded that there was evidence to support an hypothesis of differential rates of decline in cognitive ability with increasing age, as a function of the intellectual level. He stated that any cross sectional study involves a built-in bias involving differential environmental effects.

The 1963 follow-up study by Eisdorfer included 165 persons aged 68-80 from the original study. (54) The subjects were tested with a Full Scale WAIS. The results of the retest demonstrated little overall decline in scores of the aged subjects.

TYPES OF LEARNING

Conditioning

Conditioning is a protype of the learning experience. The acquisition of a response (CR) to a neutral stimulus (CS) has been studied by researchers in an attempt to explain the phenomena of learning.

Conditioned hand withdrawal has been studied in relation to age. Marinesco and Kreindler adapted Bechterew's association method in their 1934 study on conditioning in aged subjects. (55) The subjects were seated in a dimly lighted room with his hand on a mobile plate, the movements of which were recorded on a kymograph located outside of the room. The investigators conditioned a reflex

retraction of the subject's hand, pairing a shock to the hand with a ringing bell or colored light. The results of the aged subjects were compared to the results of younger adults. The aged subjects took about twice as long as the young to develop the conditioned hand contraction; 30-40 trials young subjects compared to 80-90 trials for the aged subjects.

There have been a number of studies related to aging and the conditioned eye blink. Braun and Geiselhart (1959) conditioned and extinguished the eyelid closure response. (56) They examined subjects within three age groups; 15 males 8-10 years, 15 males 18-25 years, and 13 males 62-84 years. The procedure for testing was as follows; the blink reflex was conditioned to a small illuminated disc that was exposed in front of the subject for one second. After a half second, a puff of air was directed at the corner of the eye, causing the subject to blink. Each subject was given eight such conditioning trials followed by twenty extinction trials, during which the conditioned response of the eye blink to the exposure to the light could be expected to be extinguished or modified. The results of the study showed a difference between the young and old subjects in the frequency of conditioned responses. A similar study was done by Kimble and Pennypecker in 1963 (57) and with similar results to Braun and Geiselhart. These investigators suggested that "with years of living, the eyelid

reflex becomes more suseptible to adaptation and thus, to poor conditioning."

Similar studies on conditioning related to age point to a slowness of conditioned response acquisition with advancing age, but more research is necessary before a conclusion can be drawn as to whether all aged persons show some decrement in conditioning.

Verbal Learning

Among the more popular notions concerning the elderly is the belief that learning ability or efficiency of learning declines with age. There have been many attempts by investigators to identify the variables responsible for this age-related deficit. An appreciable part of the studies on learning in relation to age have involved verbal materials, possibly because verbal facility is an important part of cognitive knowledge and also, because data are readily available.

Many of the studies regarding verbal learning have utilized the pair-associate learning method. (58) Paired associates is similar to learning vocabulary in a foreign language or learning a code. Each item consists of two components: a signal or stimulus, and a response. Typically, the subjects task after each item has been presented once, is to anticipate the appropriate response whenever a particular stimulus is presented. In the usual confirmation procedure, this is followed by the entire item,

the stimulus together with the response. Then another item is presented, and the items are repeated, usually in different order, to some fixed number of presentations or until some criterion of performances is reached. Several intervals can be varied in this procedure.

A host of studies involving verbal learning have demonstrated large differences between the young and elderly. One of the earliest studies by Ruch (1934) used three sets of paired-associate material varying in level of difficulty. (59) They were presented to three age groups, 12-17 years, 34-59 years, and 60-83 years. The data are reported in terms of the number of correct responses totaled over 15 presentations of each of the paired-associate lists. There is an indication that older subjects learned less on each paired associate task differing level of difficulty. Ruch concluded that deterioration in learning ability in old age is not general but, depends upon the nature of the material learned.

In 1941, Gilbert compared 174 subjects aged 60-69 years with 174 subjects aged 20-29 years. (60) The samples were matched exactly for vocabulary level. Gilbert used a battery of eleven tests, one of which was a paired associate learning test. Of all eleven tests, paired associate learning performance showed the largest percentage loss with age. The investigator believed this was because

the test is a novel type of learning requiring more complex mental organization and control.

Korchin and Basowitz replicated Ruchs' study in 1957 and found that older subjects learned less on each paired associate task differing in level of difficulty. (61) They concluded from their data that the primary age deficit was in learning novel material. They proposed that older persons might benefit from more time to learn than would young persons.

Eisdorfer, Axelrod, and Wilkie (1963) undertook a study of verbal rote learning in the aged. (62) They proposed that an increase in the exposure time of stimuli would facilitate learning for the aged to a greater extent than for the young. Seven experiments were done and time for response on serial learning tests was manipulated. Older subjects did perform consistently under conditions allowing for longer response. Exogenous stimulation has a detrimental effect on performance. It would be predicted, that where arousal or anxiety was diminished by experimental manipulation, older persons should improve their performance.

Since paired-associate learning is usually run under externally paced conditions, it was believed by Canestrari that the decrement exhibited with advancing age in the performance of this task might be related to its paced

character. (63) To test this hypothesis, a study was designed to investigate the effects of paced and self-paced schedules on the rate of learning in young and older adults at Duke University in 1963. The learning of thirty elderly males (mean age 65.4), and 30 younger males (mean age 23.9) was compared under paced and self-paced conditions. Paired associate lists equated for difficulty were given to all subjects. The results indicated that the self-pacing schedule leads to significantly faster learning than paced schedules in the older subjects but not in the younger subjects. Errors of omission decreased significantly under self-paced conditions while commission errors remained at the same level during all conditions of pacing. These results suggest that some of the observed performance deficit of the older subject is due to the paced character of the task rather than a true learning ability.

Arenberg carried out two studies in 1965 (64), the first of which was similar to that of Canestrari. The subjects of Arenberg's first study were men of two age groups, 63 to 77 years, and 29 to 40 years. Paired-associate tests were given the subjects and the pacing schedules varied. The older people performed less well than did the younger group, but the extent of the age differences in the learning performances was reduced with the slower pacing schedule. The second experiment was

designed further to analyze the problem of whether the age deficit was a learning one or whether it could be attributed to insufficient time to respond. The subjects were two age groups, 18-21 and 60-77. The paired words were learned by a procedure in which paced and self-paced trials were alternated. The errors during the self-paced trials were compared to the errors during the paced trials. Arenberg's results showed that the scores of the older group, as compared to the younger group were disproportionately poorer during self-paced trials that followed the fast paced ones than during the self-paced trials that followed the slow-paced ones. The conclusion was drawn that the poor performance of the older group during the fast pacing could not be attributed to insufficient time to emit a correctly learned response, but could possibly be due to a deficit in scanning or search.

Rigidity in Learning

The idea was advanced by researchers in the area of learning and age that there is often an inability of the aged individual to learn new things, not so much because of a reduced learning capacity, but because of prior learning which persists even when no longer effective. In other words prior knowledge and previous experience prevents a change of behavior learning.

There have been studies that indicate that the ability to modify existing habits becomes impaired with increasing age. Botwinick, Brinley, and Robbin (1959) experimented with two groups; one of young adults, and the other of aged adults. (65) The purpose of the study was to determine if tempo of performing a task could be alternated at will. The subjects were required to write with a pencil as slowly as possible. Elderly adults were very poor in altering their habitual writing tempos.

It has been hypothesized that there was a relationship between rigidity and transfer of learning. (66) An analysis of the effect of learning one experimental task on that of learning a second one is called transfer of learning. When learning the first task facilitates the learning of the second task, the transfer is positive; when learning the first impedes the learning of the second, the transfer is negative.

A number of studies have attempted to test the hypothesis that negative transfer increases in old age and is related to rigidity. Gladis and Braun (1958) did a paired-associate experiment on three age groups: 20 to 29; 40 to 49; and 60 to 72. The results showed a positive transfer instead of a negative one. The scores on the second task were improved over those of the first task. (67)

In 1964, Belbin, Downs, and Moore carried out a study to determine if transfer of learning in the aged was negative or positive. (68) Two groups were tested (14 to 15 years, and 40 to 52 years). The subjects learned a list of ten paired associated and then learned a different set of response words to the same ten stimulus words. Both age groups were similar in their learning patterns for both tasks; thus transfer effects were not differentially related to age.

Animal experiments have been done quite widely in an attempt to explain transfer of learning and rigidity (Stone, 1929; Bothwinick, Brinley and Robbin, 1962; Birren 1962). One animal researcher of note is Bernstein (1961) who has reported a series of complex experiments in which young adult chimpanzees (11 to 19 years) were compared to aged ones (28 to 40 years). Bernstein concluded that he could find no conclusive evidence to support a general decline in performance and memory, or an increase in response rigidity with age in adult chimpanzees. (70)

Psychomotor Learning

Psychomotor learning is closely related to perception, thinking, memory, and problem solving. Psychomotor skills is a term that generally refers to those activities in which dexterity is shown. Welford (71) identifies that these

skills have the following three characteristics: (A) They consist essentially of the building of an organized and coordinated activity in relation to an object, stimulus, or situation and thus involve the whole chain of sensory, central and motor mechanisms which underlies performance; (B) They are learned in that the understanding of the object or situation and the form of the action are built up gradually in the course of repeated experience; (c) They are serial in the sense that within the over-all pattern of the skill many different processes or actions are ordered and coordinated in a temporal sequence.

Studies indicate that older people seem to learn the essentials relevant to their needs, interests, and preservation and are likely to recall these data when confronted with the actual situation in which they can be applied.

Welford (72) studied the results of a training program involving 694 male subjects in age from 26 to 67. This study was done in South London at the time that the Tram transportation system was eliminated. Tram drivers were given the opportunity to re-train as bus drivers. The course ran for three weeks and those failing were allowed to repeat the course. A continuous fall in those passing after three weeks was shown after the mid-thirties with a slight improvement from 51 to 55 years. With time, however there was little decrease in the proportion of those who eventually passed until after age 60.

Entwisle (1959) is another investigator who took advantage of a naturally occurring change in a tradition. (73) A company in England switched from horse-drawn vehicles to motor vehicles, and the drivers aged 20 to 55 years were retrained. The rate of learning tended to decrease for all ages, both when there was no prior experience in driving, and when the trainees had had prior experience in driving horse-drawn vehicles.

Industries often test employees' psychomotor skills particularly when safety is a concern. Pacaud (74) reported an experiment which was done on 4,000 operatives and apprentices on the French railways. The subjects were told to: (A) Raise the right foot on seeing a green light; (B) Press the right foot on seeing a red light; and (C) Make both movements on seeing a yellow light. After the tasks were learned, the subjects were told that when a light signal was given accompanied by a sound of metallic quality, a key was to be pressed and the usual reaction to the light omitted. Success on the performance of these tasks fell steadily from the early twenties to the end of the age scale. When the subjects were required to light the signals alone there was a much higher rate of success for all age groups.

In studies of petroleum and telephone companies which have switched to automation, it has been shown that the older instrument workers in the pretroleum industry do

somewhat better in training courses than do the younger workers. In another study of telephone workers where IBM cards were substituted for a form for marking of telephone numbers the proportion of telephone trainees with average scores for correct marking on the IBM card declined progressively with increasing age. (75) The type of performance required of the telephone operators involved psychomotor coordination and speed while the work of the instruments workers was largely of a repetitive nature.

Speed of finger response was tested by Talland in a study in 1961. (76) Three groups aged 20 to 40, 65 to 75, and 77 to 89 years were tested in tasks of simple reaction, and simple reaction with alerting signals. The older subjects responded more slowly under all conditions.

Clement (1962) did a study of six groups of subjects whose mean ages were 36, 50, 59, 69, 79, and 85 years. (77) A simple task was to be learned; there were four different signal lights, each calling for one response among four alternatives. When the response was made correctly twelve times the task was considered learned. The following mean error scores according to age groups was: 6, 7, 10, 14, 18, and 23 years. The increase with age was continuous and progressive.

Nobel, Baker, and Jones (1964) repeated Clements study. A sample of 600 subjects aged 8 to 87 years were involved in

this study. (78) The results were similar, but it was noted that there was some improvement with practice for all ages.

Thinking

Thinking has been defined in many ways due to the complexity of its components. Generally, it may be defined as the development of new ideas or concept formation. The process of thinking involves the whole range of experience from sensory to complex mental functions. Conceptualization involves the processes of differentiation and categorization.

Investigators have utilized the stimulus generalization test to determine the ability of the aged to differentiate. Stimulus generalization is a process describing response tendencies bearing on the discrimination among stimuli. In 1954, Watson reasoned that the older person narrows his range of interests and concentrates on essential features while ignoring the rest. (79) Studies by Watson (1954) and Arnhoff (1959) supported the hypothesis that in a test of stimulus generalization, older subjects as compared to younger subjects tend to differentiate more among the stimuli presented to them or tend to generalize less. (80) (81) In addition, Arnhoff's study indicated a tendency of older subjects to be more concerned with accuracy as indicated by an ability to differentiate more accurately with reduced speed. Canestrari (1965) employed a task of stimulus generalization to compare the ability of people of different

age groups to differentiate. (82) He reported that older subjects did not make the differentiations that the younger subjects made which contradicted the above studies. Bothwinik suggested that carefulness and time contribute to the older person's ability to conceptualize. (83)

Studies have also been conducted to examine the relation between age and the ability to organize categories to form concepts. In his 1956 studies of changes of aspects of cognitive ability with age Bromley has, along with other tests, used the Shaw Test. (84) This is essentially a test of conceptual function, employing four wooden blocks which could be arranged according to a number of principles of logical order. Bromley classified 256 subjects into four age groups; 17 to 35, 35 to 51, 51 to 66, and 66 to 82 years. The test involves the mental operations of abstracting, serializing, productive thinking, persistence, flexibility and imaginative exploration. According to the criteria established for the test, the results revealed that the quantity and quality of the responses to this test fall off from the age of twenty to thirty years. Bromley has related the results of this study to a diminution in the ability to develop new skills and concepts with age.

Logical inferences and generalizations are necessary in order to categorize objects in a meaningful manner. This ability is referred to as critical thinking. Critical

thinking requires that one be able to comprehend and use language for accurate and discriminating communication of thought, recognize the existence or non-existence of logical relationships between propositions, interpret data and draw warranted conclusions or generalizations, appraise the adequacy and weight of the alleged evidence, weigh it and judge between different degrees of probability of certain conclusions, recognize unstated assumptions and evaluate arguments. (85) The Watson-Glaser (WG) Tests of Critical Thinking have been used to study these abilities.

Friend and Zubek (1958) administered the Watson-Glaser Critical Thinking Test to 484 subjects and twelve to 80 representing similar educational, occupational, and economic backgrounds. (86) The purpose of the study was to attempt to determine: (A) At what age does critical thinking ability occur; (B) When does ability begin to decline; and (C) How pronounced is the decline? The results of the study revealed that critical thinking ability, as measured by this test, showed a progressive increase from late childhood through to mid-twenties, held up to thirty-five and declined progressively through to the seventies. Although the elderly subject, as a whole, scored poorly on the critical thinking test, many showed a high level of performance, a performance as high or higher than young adult subjects. Other studies using the W-G test have revealed similar results.

Various card-sorting studies have been done to study the ability of aged persons to conceptualize (Bothwinik and Birren, 1963). (87) Generally, the performance of older subjects when compared to that of younger subjects was poorer in forming concepts and in shifting to new ones.

Talland (1961) suggested that poor memory may be important in the difficulty older people have in forming the concepts. (88) Talland tested 76 subjects, 40 to 89 years with two types of concept tasks; spatial and sequential. The spatial task related to the ability to categorize while the sequential task involved remembering a string of events. The results of the study revealed that there was a decline in concept formation with both types of tasks after the age 50 to 59 years suggesting that memory had little association with concept formation.

In studying the thinking ability of the aged, it has been suggested that it is necessary to consider the older person's ability to form both abstract and concrete concepts. (89) The educational system today strives to train students to generalize and infer. Considering the fact that the average person aged 65 has only an eighth grade education and his educational process was more structured, it seems possible that tests related to the aged individual's ability to abstract and categorize might not be a valid indication of his ability to think, as his performance might be expected to be more concrete.

Problem Solving

Problem solving may be defined as solution oriented behavior. Gagne (1959) studied the process and lists at least five separate steps involved in problem solution: (90)

1. Reception of the stimulus situation and instructions.
2. Concept formation involves strategies and rules that persons adopt in order to determine what they will react to in the stimulus situation.
3. Determining courses of action.
4. Decision making occurs when more than one course of action is adequate.
5. Verification knowledge of results.

Studies of problem solving have consistently found striking, but clear-cut decrements with age (Jones, 1959). (91) Jerome (1962) reported a study regarding the approaches of problem solving on two groups of subjects: twelve women ($\bar{X}$ age, 23 years); and eleven women ($\bar{X}$ age, 66 years). (92) He presented the subjects with an apparatus named the "Logical Analysis Device." The subjects pressed buttons that illuminated lights in a sequence; the job was to integrate in an orderly arrangement the sequentially elicited light key pairings. The problems were those of logical problem solving which were given at four levels of difficulty in an ascending order of complexity. If the subject failed to solve a problem he was given another problem of equal difficulty. The younger subjects were found to be markedly

superior to the older. The older subjects were not able to identify the problem early, they had a haphazard method of search behavior, a high degree of redundancy in the inquiry of the problem, and a disinclination to keep notes. Similar studies related to problem solving have shown comparable results. Explanations invoked have involved such concepts as interference, rigidity, and loss of abstractive capacity which are linked to central nervous system deterioration. (93) A group of recent studies (Bromley, 1963; Welford, 1958; Rabbitt, 1965; and Brinley, 1965) have analyzed the ability of the aged to solve problems as compared to younger groups. (94) Consistent decrement of problem solving ability is noted with age. These studies suggest that the decreases related to problem solving ability with age may be related to: inability to organize complex material, loss in short-term memory mechanisms, defects in the ability to discriminate between stimuli, inability to delay responses because of defects of inhibitory processes and the inability to disregard irrelevant cues.

Creativity

Creative thinking can be defined as the inventive transformation of stimulus elements from one arrangement to another. Original intellectual achievements tend to appear only after the more obvious solutions to a problem have been tried and rejected.

Lehman's studies related to creativity and the aged are cited frequently in the literature. (95) The procedure used by Lehman has involved the selection of objective evidence of achievement made by appropriate authorities without reference to the age of the achiever. These are then classified according to the age when produced and the average production is computed per age interval. For example, an age classification for nearly 1,000 contributions sufficiently noteworthy to be mentioned in a history of chemistry was developed. The highest proportion of contribution occurred when the contributors were in the age bracket 30 to 34 years. Two-thirds of the contributions were between 40 and 50 years and fifty percent after the age of 60. There is a great deal of discussion and speculation regarding Lehman's studies as to whether creativeness is being measured by quantity or quality. He stresses that within most fields of endeavor the maximum production rate for quality work occurred from 30 to 39 years, but recognizes individual variations are great and predicting production is not possible.

Dennis (1956) disputed Lehman's studies as it was his contention that measurement of creativity by quality output could be biased. (96) He believed that longevity influenced creativity. The scientific articles of 156 well-known scientists who lived to age seventy or beyond, and 56 of whom lived to age 80 and beyond were tabulated by decades. He found a relatively small decrease in rate of publication up

to age 80. The decades of the 40's and 50's were the most productive. In the 60's and 70's, the output is about 80 percent and 65 percent of what it is during the peak decades. Dennis found it was possible to predict a scientist's productivity in his 60's and 70's from his record in the 40's and 50's. It is difficult to compare the results of Dennis's studies with Lehman's as creativity is being measured by quantity versus quality. These studies were also limited in that only men were included in the study.

An investigation concerned with the effects of aging on creative intellectual output and to test for the possible sex differences in creativity was done by Bromley (1967). (97) Two hundred subjects aged 17 to 75 were given two sorting tests which were designed to measure creativity. Sex differences in creativity were found to be small, inconsistent and insignificant. The results showed that, even when no time limits were imposed, older subjects had a lower total output than the younger subjects. The sorting tests required the subjects to be able to search for a solution to a problem which was scientific in nature and thus was a measurement of quality of creativity. Older persons were unable to get higher scores in the scoring tests related to quality of creativity even when they were motivated.

The conclusions drawn from the studies on creativity seem to indicate that high quality work does occur relatively

early in adult life, and that the rate of this work diminishes as one becomes older. Perhaps the personality factors that are associated with creativity undergo change with age (Barron, 1963). (98) Maniche and Falk suggested that the periods between creative work were so long that possibly creativity was squelched. (99)

Memory

There is an interrelationship between memory and other components of the cognitive processes. The memory process is conceptualized in many ways in the literature, but for the purpose of this paper will be as follows: Stage one is the registration stage in which perceptions are recorded; Stage two is retention which may be thought of as the consolidation of the registered inputs and; Stage three is the area of recall and recognition. (100)

As one begins his twentieth year, it is hypothesized that his memories will have been sifted through the sieve of time and that many will have been lost in the process. It is supposed that some memories fade away: because the referent situations have changed or disappeared; because the emotional content has changed through new experiences; and, because of the intervention of other stimuli between the memory and the inducing stimulus causing the neural path to intercept. (101)

Many research investigators support the belief that memory deficiencies increase with advancing age (Wechsler,

1961; Basowitz and Korchin, 1957). (102) Bayley and Oden (1955) and Lorge (1956) believed their studies supported the theory that memory decline is related to education. (103)

The relation between learning and memory is crucial. Gilbert's 1941 study of memory in relation to age is cited often in the literature as an outstanding contribution. (104) Gilbert gave eleven different types of memory tests to two groups of subjects (N-174) ages 20 to 29, and 60 to 69 years. Results of the study revealed the overall age decrement in memory ability was 35.5 percent. In addition, Gilbert reported that the age decrement was slightly greater for retention of the learned material than for the immediate recall of it.

It was hypothesized that there may be a learning deficit as measured by immediate recall but not necessarily retention. In two studies (Hulicka and Weiss, 1965; Wimer and Wigdon, 1958) involving the learning and recall of words and pairs of symbols and names, respectively, the older persons required more trials to a learning criterion but, once having learned the material, recalled the material as well as young persons after intervals of 15 minutes and one week. (105)

It has been suggested that loss of both immediate and old recall occurred with age. Klonoff and Kennedy's 1965 study of 172 male veterans aged 80 to 92 years to assess memory and perceptual functioning by giving a battery of

psychological tests revealed that there was no difference in memory functioning as age increased. There was a greater loss in immediate memory as compared to remote memory and auditory retention was superior to visual retention. (106)

Beard's studies of centenarians (1957, 1968) did not support the theory that older people have good memory for remote events and poor memory for recent events, but found that memory is maintained with age. (107) In addition, it was inferred that people who exercise their memory retain it longer than those who do not. Hill's longitudinal study (1957) in which he reported testing himself in typewriting skills at 30, 55 and 80 years revealed that there was some forgetting, but there was considerable retention of the psychomotor skill over the fifty years indicating good retention. (108)

Summary

The review of literature allows few generalizations regarding learning and the aged. There are many interrelated factors that influence the learning process in the aged person, as in any stage in the life cycle. Generally, it is apparent that there is a gradual decline in overall ability with age as is demonstrated by the deficit in psychomotor skills. It is important to be cognizant of the fact that the learning process in relationship to age is an individual concern, showing wide variances and having to do with what the person perceives necessary to learn.

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CHAPTER III

ANALYSIS OF DATA

The purpose of this study was to measure the amount of knowledge people aged 65 and over had about Medicare Health Insurance. The study population consisted of 35 people who lived in their own homes in the Portland - Eugene area. The criteria of each respondent were: white, aged 65 and over; able to communicate; not currently using Medicare; and willing to participate in the study. In the process of doing the pre-test it was evident that older people were more likely to cooperate if the researcher was referred by a friend. Consequently, this was the method employed in getting the sample population. This method of sampling was a limitation of the study but because of the exploratory nature of the study it was done in this way. The respondents who were included in the study were contacted by telephone to explain the purpose of the study; they were asked if they were willing to participate; and if they were, an appointment was made for the interview. All respondents contacted agreed to be interviewed and were included in the study.

At the interview the researcher read all of the questions to the respondents and recorded their answers as they were given. After the interview was completed, the

interviewer went back through the entire interview schedule and gave the correct information to the respondent. This was done for two reasons: to make sure the respondent had the correct information; and to prevent embarrassment of the respondent who may have given incorrect answers. The latest edition of the Medicare handbook was left with each of the respondents. The length of the interview was approximately one hour.

Description of the Sample

Of the 35 respondents in the study, 37.1 percent (N-13) were male and 62.8 percent (N-22) were female. See Table 1. The ages of the respondents ranged from 65 to 87 years. Almost half, (48.5 percent, N-17) were 70 to 74 years and 31.4 percent (N-11) were 65 to 69 years. See Table 2.

TABLE 1

FREQUENCY DISTRIBUTION OF THE RESPONDENTS BY SEX

Sex	N	%
Male	13	37.1
Female	22	62.8
Total	35	99.8*

*The figures on all tables in the study do not equal 100 percent due to rounding.

TABLE 2

FREQUENCY DISTRIBUTION OF RESPONDENTS BY AGE

Age	N	%
65-69 years	11	31.4
70-74 years	17	48.5
75-79 years	4	11.4
80--- years	3	8.5
Total	35	99.8

Thirty-one of the respondents provided information about their educational background. The mean educational level of the respondents was nine to 12 years of education. This is higher educational preparation than would be expected in aged people as national statistics indicated that the average person 65 years and over has had eight years of schooling. (110) See Table 3.

TABLE 3

FREQUENCY DISTRIBUTION OF RESPONDENTS BY EDUCATIONAL PREPARATION

Educational Preparation	N	%
---6 years	1	2.8
6--8 years	10	28.5
9-12 years	11	31.4
12--- years	9	25.7
Don't Know	4	11.4
Total	35	99.8

All of the respondents interviewed (N-35) had Medicare. Twenty-four (68.6 percent) of the respondents said they had Part A and Part B Medicare, but ten (28.5 percent) did not know what kind of Medicare coverage they had. Twenty-five (71.4 percent) of the respondents had been enrolled in the Medicare Program over four years, while 14.3 percent (N-5) had Medicare less than one year. See Table 4.

TABLE 4

FREQUENCY DISTRIBUTION OF RESPONDENTS BY LENGTH OF TIME ENROLLED IN THE MEDICARE PROGRAM

Length of time of Medicare enrollment	N	%
1 year or less	5	14.3
2 years	3	8.5
3 years	1	2.8
4 years	1	2.8
over 4 years	25	71.4
Total	35	99.8

Twenty-four (68.5 percent) of the respondents had used Medicare, while 11 (31.4 percent) indicated they had not used the insurance. Of the 24 respondents who had used Medicare, 19 (79.1 percent) had used the plan within the last year. There was a negative relationship between knowledge of what plan(s) the respondents had and their use of Medicare.

Twenty-seven of the respondents had read the Medicare handbook.

Knowledge of Medicare

Knowledge of Part A (Hospital Plan) and Part B (Medical Plan) was categorized into three subject areas: benefits; services; and deductible amounts. An arbitrary rating scale was developed to determine the level of knowledge of the respondents and was as follows:

Range of Percent of Correct Responses	Level of Knowledge
90-100	Excellent
70-89	Good
50-69	Fair
30-49	Poor
Below 30	Very Poor

The number of correct responses for Part A and Part B Medicare was based on the total of 61 questions and was computed for each respondent. The total number of correct responses of the respondents ranged from five to 46. Generally the respondent's knowledge of the total Medicare Health Insurance Program was inadequate with only two respondents indicating a "good" level of knowledge. See Table 5.

TABLE 5

FREQUENCY DISTRIBUTION OF RESPONDENTS SCORES FOR PART A AND PART B MEDICARE

Level of Knowledge	N	%	Range of Correct Responses
Good	2	5.7	45-46
Fair	16	45.7	31-42
Poor	12	34.2	22-30
Very Poor	5	14.2	5-16
Total	35	99.8	5-46

The number of correct responses and percentages for Part A Medicare was based on the total of 39 questions and was computed for each respondent. The range of correct responses of the respondents was from three to 30. None of the respondents had excellent knowledge of Part A Medicare. Generally, the respondent's knowledge of Part A Medicare was inadequate with 40 percent of the respondents (N-14) classified as having poor knowledge and 17.1 percent (N-6) classified as having very poor knowledge. See Table 6.

TABLE 6

FREQUENCY DISTRIBUTION OF RESPONDENTS SCORES FOR PART A MEDICARE

Level of Knowledge	N	%	Range of Correct Responses
Good	3	8.5	27-30
Fair	12	34.2	20-26
Poor	14	40.0	11-19
Very Poor	6	17.1	3-10
Total		99.8	

The number of correct responses for Part B Medicare, the medical plan, was based on the total of twenty-two questions and was computed for each respondent. Correct responses of the respondents ranged from one to 21. The respondents knowledge of Part B Medicare was better than their knowledge of Part A in that some respondents had excellent knowledge (N-2, 5.7 percent) and 45 percent (N-16) had fair knowledge. This probably was due to the fact that the respondents had used the Part B plan for visits to the doctor more than they had used the Part A plan which primarily covers facility services. See Table 7.

TABLE 7

FREQUENCY DISTRIBUTION OF RESPONDENTS SCORES FOR PART B MEDICARE

Level of Knowledge	N	%	Range of Correct Responses
Excellent	2	5.7	20-21
Good	7	20.0	16-19
Fair	16	45.7	11-15
Poor	8	22.8	7-10
Very Poor	2	5.7	1-3
Total		99.9	

PART A MEDICARE

Part A Coverage: Facilities and Services

The knowledge that the respondents had of the facilities and services that were covered under Part A Medicare ranged from fair to very poor. This is shown on Table 8. Over fifty percent of the respondents knew that private hospitals (N-19, 54.2 percent), and home health agency (N-18, 51.4 percent) were covered by the insurance. However, eighteen (51.4 percent) of the respondents did not know that county hospital services were covered. Due to the limited usage by the aged population of the services of tuberculosis and/or psychiatric hospitals, it was not surprising to find that so few knew that these services were covered by Medicare. Of the respondents, only six knew that Part A covered extended care facilities. This may be due to the fact that the respondents may not have understood the term "extended care facility."

At least 50 percent of the respondents had correct information about the operating room, dressings, laboratory tests, x-rays, telephone and television. They did not know whether Part A Medicare would pay for intensive care unit or private duty nurses. Twelve (34.2 percent) knew that medications were not completely paid for by Medicare and 65.7 percent of the respondents had incorrect information about medication coverage.

TABLE 8

FREQUENCY DISTRIBUTION OF THE
RESPONDENTS KNOWLEDGE OF FACILITIES COVERED BY PART A MEDICARE

Facilities	Yes*		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Private Hospital	19	54.2	0	0.0	16	45.7	35	99.9
County Hospital	15	42.8	2	5.7	18	51.4	35	99.9
Tuberculosis Hospital	9	25.7	4	11.4	22	62.8	35	99.9
Psychiatric Hospital	5	14.2	8	22.8	22	62.8	35	99.8
Extended Care Facility	6	17.1	17	48.5	12	34.2	35	99.8
Home Health Agency	18	51.4	2	5.7	15	42.8	35	99.8

* Correct responses are all yes.

The respondent's knowledge relating to the provision of doctor's visits by Part A Medicare was poor with only ten (28.5 percent) acknowledging that this plan does not cover doctor's visits; fifteen (42,8 percent) said the visits were covered and ten (28.5 percent) did not know about the coverage. Because the physician visits his patients in a health care facility, the respondents may have assumed that the visits are covered under Part A Medicare (Hospital Plan) instead of Part B Medicare (Medical Plan). See Table 9.

TABLE 9

FREQUENCY DISTRIBUTION OF
THE RESPONDENTS KNOWLEDGE OF SERVICES COVERED BY PART A MEDICARE

Services	Yes		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Private room	12	34.2	** 14	40.0	9	25.7	35	99.9
Operating Room Charges	** 20	57.1	2	5.7	13	37.1	35	99.9
Dressings	** 18	51.4	4	11.4	13	37.1	35	99.9
Intensive care	** 14	40.0	2	5.7	19	54.2	35	99.9
Private duty nurses	2	5.7	** 13	37.1	20	57.1	35	99.9
Laboratory Tests	** 27	77.1	2	5.7	6	17.1	35	99.9
X-rays	** 24	68.5	2	5.7	9	25.7	35	99.9
Medications (all)	14	40.0	** 12	34.2	9	25.7	35	99.9
Doctors visits	15	42.8	** 10	28.5	10	28.5	35	99.9
Telephone	1	2.8	** 26	74.2	8	22.8	35	99.9
Television	0	0.0	** 29	82.8	6	17.1	35	99.9
Wheelchair	** 14	40.0	5	14.2	16	45.7	35	99.9

** Denotes correct responses in this table and all following tables.

Part A Medicare: Benefit Period

The largest percentage (31.4 percent, N-11) of the respondents did not know that a benefit period begins when the patient enters a hospital and ends when he has received no services from a hospital, extended care facility, or home health agency for sixty days in a row. See Table 10.

TABLE 10

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF BENEFIT PERIODS COVERED BY PART A MEDICARE

What is a benefit period?	N	%
A benefit period begins when you enter a hospital and ends when you leave.	6	17.1
A benefit period begins when you enter a hospital and ends when you have received no services from a hospital, extended care facility or home health agency for sixty days in a row. **	8	22.8
A benefit period is determined by the physicians orders	10	28.5
Don't know.	11	31.4
Total*	35	99.9

The term "spell of illness" was used in the earlier editions of the Medicare handbook and is the same as a "benefit period." Only thirteen (37.1 percent) of the respondents knew the terms were synonymous. Many of the respondents had very early editions of the handbook which might contribute to their lack of knowledge of a benefit period.

Twenty-one (60 percent) of the respondents knew that if they were discharged from the hospital for 10 days and then re-hospitalized, they would be under the same benefit period. This large percentage indicated that the respondents knowledge of a benefit period was higher than was indicated by responses to the definition of the term (N-8, 22.8 percent). See Table 11, question two. This discrepancy may be partly due to the responses of the respondents that knew what a benefit period was (N-8, 22.8 percent) and the respondents that said a benefit period was indicated by the physicians orders (N-10, 28.5 percent). If it was the respondent's belief that the physician determines the benefit period, they would answer "yes" to question two, Table 11, thus, partly accounting for the discrepancy noted.

TABLE 11

FREQUENCY DISTRIBUTION OF THE RESPONDENTS
KNOWLEDGE OF BENEFIT PERIODS COVERED BY PART A MEDICARE

Benefit Period Questions		Yes		No		Don't Know		Total	
		N	%	N	%	N	%	N	%
Are a benefit period and "spell of illness" the same thing?	**	13	37.1	7	20.0	15	42.8	35	99.9
If you were discharged from the hospital for 10 days and then rehospitalized, would you be under the same benefit period	**	21	60.0	3	8.5	11	31.4	35	99.9

Part A Medicare: Deductible

Twenty-four (68.5 percent) of the respondents knew that it was necessary to pay a deductible amount for Part A Medicare but only 45.7 percent knew that the current deductible amount was $60.00. See Table 12. Twenty-three (65.7 percent) of the respondents thought the deductible amount for Part A had to be paid once a year and three (8.5 percent) of the respondents indicated once a month. Only nine (25.7 percent) of the respondents knew that the deductible for Part A Medicare must be paid once for each benefit period.

Part A Medicare: Payment for Services in Hospital, Extended Care Facility and Home Health Agency

The respondents had poor knowledge of the length of time and the amount Part A Medicare would pay for hospital, extended care facility, and home health agency services. Only fifteen (42.8 percent) knew how much and how long Part A Medicare would pay for all covered services in a hospital, twelve (34.2 percent) knew of the extended care facility coverage and four (11.4 percent) knew of home health agency coverage. See Tables 13, 14, and 15.

Other Questions on Part A Medicare: Eligibility for Service

Less than half of the respondents knew that they must be hospitalized at least three days prior to extended care facility admission (N-16, 45.7 percent) or home health agency admission (N-17, 48.5 percent). The fact that Part A

TABLE 12

FREQUENCY DISTRIBUTION OF THE
RESPONDENTS KNOWLEDGE OF DEDUCTIBLE REQUIRED BY PART A MEDICARE

Deductible questions		Yes		No		Don't Know		Total	
		N	%	N	%	N	%	N	%
Do you have to pay a deductible before Part A Medicare will pay any expenses?	**	24	68.5	5	14.2	6	17.1	35	99.8
Is the current deductible amount $60.00?	**	16	45.7	13	37.1	6	17.1	35	99.8

TABLE 13

FREQUENCY DISTRIBUTION
OF THE RESPONDENTS KNOWLEDGE OF
PART A MEDICARE PAYMENT FOR HOSPITALIZATION

Hospital Payment		N	%
After the $60.00 deductible payment Medicare would pay:			
The entire cost of hospitalization for up to 90 days in one benefit period.		5	14.2
For all covered services for up to 90 days in one benefit period.		1	2.8
For all covered services for 60 days and all but $15.00 per day from the 61st to the 90th day in one benefit period.	**	15	42.8
Don't Know.		14	40.0
Total		35	99.8

TABLE 14

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF PART A MEDICARE PAYMENT FOR EXTENDED CARE FACILITY SERVICE

Payment for Extended Care Facility	N	%
The entire cost of care for 100 days.	1	2.8
For all covered services for 100 days.	5	14.2
For all covered services for 20 days and all but $6.50 per day for 80 days.	**12	34.2
Don't Know	17	48.5
Total	35	99.7

TABLE 15

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF PART A MEDICARE PAYMENT FOR HOME HEALTH AGENCY SERVICE

Payment for Home Health Agency	N	%
Entire cost of services provided for 100 days or 100 visits under a benefit period.	** 4	11.4
Fifty percent of the cost of services for 100 visits.	3	8.5
Eighty percent of the costs of services for 100 visits.	11	31.4
Don't Know	17	48.5
Total	35	99.8

Medicare requires that referral to a home health agency or extended care facility be made within fourteen days of discharge from the previous service was known by less than half of the respondents. See Tables 16, 17.

The respondents knowledge that Medicare coverage is directed toward rehabilitation rather than, preventive or custodial services was not evident in this study. Only fifteen (42.8 percent) of the respondents knew that a person must have a condition requiring continuous nursing care or rehabilitative services to be eligible for extended care facility (ECF) coverage, with thirteen (37.1 percent) of the respondents indicating intermittent nursing care or rehabilitative therapy was needed to qualify for home care. A few of the respondents knew that Part A Medicare does not pay just for personal services in an ECF or through home care. Twelve (34.2 percent) of the respondents knew that Medicare coverage does not provide for housekeeping and meals. See Tables 16, 17.

TABLE 16

FREQUENCY DISTRIBUTION OF THE RESPONDENTS
KNOWLEDGE OF PART A MEDICARE ELIGIBILITY REQUIRMENTS FOR EXTENDED CARE COVERAGE

Eligibility for Extended Care Facility	Yes		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Hospitalized at least three days before admission to an ECF.	** 16	45.7	2	5.7	17	48.5	35	99.9
Referral to ECF within fourteen days after discharge from a hospital.	** 14	40.0	2	5.7	19	54.2	35	99.9
Must have a condition that requires continuous nursing or rehabilitation.	** 15	42.8	5	14.2	15	42.8	35	99.9
Can just need personal care.	11	31.7	**7	20.0	17	48.5	35	99.9

TABLE 17

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF PART A MEDICARE ELIGIBILITY REQUIREMENTS FOR HOME HEALTH AGENCY COVERAGE

Eligibility		Yes		No		Don't Know		Total	
		N	%	N	%	N	%	N	%
Hospitalized or in ECF at least 3 days before admission to home care.	**	17	48.5	2	5.7	16	45.7	35	99.9
Referral within 14 days after discharge from hospital or ECF	**	18	51.4	2	5.7	15	45.7	35	99.8
Must have a condition that requires intermittent nursing care or rehabilitative services.	**	13	37.1	2	5.7	20	57.1	35	99.9
Must have a condition that requires continuous nursing care.		7	20.0	**15	42.8	13	37.1	35	99.9
Can just need help with personal care.		11	31.4	**10	28.5	14	40.0	35	99.9
Can just need healp with house-keeping, meal preparation.		11	31.4	**12	34.2	12	34.2	35	99.8

PART B MEDICARE, MEDICAL PLAN

Part B Services

Most of the respondents knew that Part B Medicare covered the services of medical and osteopathic physicians and does not cover chiropractic physician services. Dental services involving surgery of the jaw is covered by the Part B plan, but only six (17.1 percent) of the respondents had the correct information. See Table 18.

Part B Medicare: Benefits and Services

Table 19 indicates that of the ten services and benefits covered by Part B Medicare, over 70 percent of the respondents knew the correct coverage of five: treatment of medical-surgical conditions, self administered medications, eye examinations, hearing examinations, and physicians' visits in the hospital. Many of the respondents (48.5 percent, N-17) knew routine physical examinations were not covered by Part B and a similar percentage knew diagnostic tests were covered. Both of these are frequently used by patients. See Table 19.

TABLE 18

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF SERVICES COVERED BY PART B MEDICARE

Services	Yes		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Medical physician	** 30	85.7	2	5.7	3	8.5	35	99.9
Osteopathic physician	** 17	48.5	9	25.7	9	25.7	35	99.9
Chiropractic physician	5	14.2	* 21	60.0	9	25.7	35	99.9
Licensed podiatrist	** 8	22.8	11	31.4	16	45.7	35	99.9
Dental surgeon	** 6	17.1	17	48.5	12	34.2	35	99.8

TABLE 19

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF SERVICES AND BENEFITS COVERED BY PART B MEDICARE

Benefits and Services	Yes		No		Don't Know		Total	
	N	%	N	%	N	%	N	%
Routine physical examinations	7	20.0	** 17	48.5	11	31.4	35	99.9
Treatment of medical surgical conditions	** 27	77.1	2	5.7	6	17.1	35	99.9
Medications (self administered)	1	2.8	** 27	77.1	7	20.0	35	99.9
Diagnostic tests	** 17	48.5	7	20.0	11	31.4	35	99.9
Eye examinations	4	11.4	** 26	74.2	5	14.2	35	99.8
Hearing examinations	3	8.5	** 26	74.2	6	17.1	35	99.8
Outpatient services eg. physical therapy	** 15	42.8	12	34.2	8	22.8	35	99.8
Home health care	** 15	42.8	7	20.0	13	37.1	35	99.9
Ambulance service	** 18	51.4	9	25.7	8	22.8	35	99.9
Physicians' visits in hospital	** 25	71.4	2	5.7	8	22.8	35	99.9

Part B: Deductible

Thirty (85.7 percent) of the respondents said a deductible amount had to be paid for Part B Medicare; this is correct information. Sixty percent (N-21) knew that the current deductible amount for Part B was $50.00. Twenty-four (68.5 percent) of the respondents knew that the deductible amount for Part B is to be paid once each calendar year, however, only sixteen (45.7 percent) of the respondents knew that they must pay a deductible for Part A also, if it is used. See Table 20.

PROCESSING THE MEDICARE CLAIM

If the respondents had questions about their Medicare bills, fourteen (40 percent) would contact the Social Security office, thirteen (37.1 percent) would contact the Aetna office and eight (22.8 percent) of the respondents indicated that they did not know who to contact. More than half of the respondents knew that Medicare could pay the physician directly (N-26, 74.2 percent). Eighty percent (N-28) of the respondents knew that they must verify to Aetna that they had paid the yearly $50.00 deductible for Part B, by sending their paid bills to the insurance office. Only four (11.4 percent) of the respondents knew that if they were dissatisfied with the amount Medicare paid for their medical expenses, there was a recourse through the Board of Appeals.

TABLE 20

FREQUENCY DISTRIBUTION OF THE RESPONDENTS KNOWLEDGE OF DEDUCTIBLE AMOUNT REQUIRED BY PART B MEDICARE

Deductible Questions		Yes		No		Don't Know		Total	
		N	%	N	%	N	%	N	%
Do you have to pay a deductible amount for Part B services?	**	30	85.7	2	5.7	3	8.5	35	99.9
Do you know that the current deductible for Part B is $50.00?	**	21	60.0	7	20.0	7	20.0	35	100.0
Do you have to pay a portion of the charges for services under Part B, after you have paid the deductible amount for the year?	**	23	65.7	5	14.2	7	20.0	35	99.9

Summary

The respondents in the study were over 65; all of them had Medicare and most of them had used the insurance. Their overall knowledge of Medicare seemed limited though there was better knowledge of Part B, the Medical Plan, than of Part A, the Hospital Plan, in the three areas investigated, i.e., benefits, services, and deductible amounts.

CHAPTER IV

SUMMARY, DISCUSSION AND RECOMMENDATIONS

Many interrelated factors account for the creation of the Medicare Program: increased longevity and limited personal resources of the aged; declining health and high medical costs; inadequacy of voluntary health insurance; and finally, failure of public assistance provisions to reach the indigent aged. The Medicare law was enacted in 1965 in an attempt to overcome some of these problems of the aged populations. The literature did not reveal that attempts had been made to evaluate the effectiveness of the Medicare Program in meeting the health care needs of the aged; therefore, this study was done.

The purpose of the study was to measure the amount of knowledge people 65 and over have about Medicare. A tool consisting of 79 fixed alternative and multiple choice questions based on information from the Medicare handbook was developed. It was divided into four categories; general information, questions on Part A Medicare (Hospital Plan), questions on Part B Medicare (Medical Plan), and questions on Medicare Claims Processing.

The respondents who were included in the study were contacted by telephone to explain the purpose of the study;

they were asked if they were willing to participate; and if they were, an appointment was made for the interview. At the time of the interview, the researcher read the questions and recorded the responses. The criteria for selection of the respondents were: white, 65 years of age or over; able to communicate; not currently using Medicare; living in own home; and willing to participate in the study. The study population consisted of 35 people who lived in their own homes. One-third of the respondents were male and two-thirds were female. The respondents ranged in age from 65 to 87 years and their mean educational level was nine to 12 years. All of the respondents had Medicare and 71.0 percent had been enrolled in the program four years; 68 percent of the respondents had used Medicare. There was a negative relationship between knowledge of what plan(s) the respondents had and their use of Medicare.

Knowledge of Part A, the Hospital Plan, and of Part B, the Medical Plan, was categorized into three subject areas: benefits; services; and deductible amounts. An arbitrary rating scale was developed and used to determine the level of knowledge of the respondents. Level of knowledge was related to percent of correct responses. The range of possible total correct responses was from 0 to 61. The actual number of correct responses of these respondents was from 5 to 46. The respondents' overall knowledge of the total Medicare Health Insurance Program was inadequate;

46 percent had fair knowledge, 34 percent had poor knowledge and 14 percent had very poor knowledge. The respondents knowledge of Part B was better than their knowledge of Part A Medicare. Over 50 percent of the respondents knew that care in a private hospital and home health agency were covered by Part A Medicare. Of the respondents, only six knew that Part A covered extended care facilities. Approximately half of the respondents had correct information about Medicare coverage of medications and 43 percent had incorrect information about doctor's visits under Part A Medicare. Most of the respondents had very poor knowledge of the benefit period which is important for them to know in order to understand how often it is necessary to pay the Part A deductible; over two-thirds of the respondents did not know the frequency that the Part A deductible had to be paid. The respondents had poor knowledge of the length of time and the amount of Part A Medicare would pay for hospital, extended care facility, and home health agency services. Less than half of the respondents know that they must be hospitalized at least three days prior to extended care facility or home health agency admission, and that the referral must be made within 14 days after discharge from a prior service. Eighty-six percent of the respondents knew that Part B Medicare covered physician services. More than two-thirds of the respondents knew whether or not Part B Medicare covered treatment of medical-surgical conditions,

self administered medications, eye examinations, hearing examinations, and physician visits. Sixty-eight percent of the respondents knew that the deductible amount for Part B Medicare is to be paid once each calendar year, however, only 45.7 percent of the respondents knew that they must pay a deductible for Part A Medicare also, if it is used.

Discussion

Despite the facts that the respondents in this study had had Medicare for some time, many had used it; they had read their booklet, and their educational level was above average; their knowledge of the insurance was poor. This indicated that Medicare was not understood by those people for whom it was intended to serve. The terms in the literature provided to the Medicare enrollee is complex, ambiguous, confusing, and the print too small. If the more educated people are unable to understand Medicare, what is the understanding of the less educated?

The review of the literature on learning revealed that the aged individuals (65 years and over) is able to learn and particularly if it is relevant to his needs. Information about Medicare which was designed to reduce concerns about health care costs should have been a motivating factor and in terms of learning, one might have thought the respondents knowledge would have been higher. The researcher acknowledges that the study was based on a small sample and cannot be generalized beyond the sampling method employed.

The study indicated that the respondents often did not know what Medicare covered and that they were confused about the coverage offered by Part A and Part B Medicare. It is important that Medicare enrollees understand the coverage because under the Part B plan they are responsible for 20 percent of all costs. For instance, many of the respondents thought Part A Medicare covered doctors visits which are covered by Part B. There was poor knowledge of the amount of payment and the length of time covered for facility services by Medicare. Although, it looked as though the respondents had adequate knowledge of the deductible amount required by Part A and Part B Medicare, there appeared to be confusion as to how often these amounts must be paid. Incorrect or inadequate knowledge about Medicare coverage can place the aged individual at a disadvantage as it prevents him from being able financially to plan and to utilize services that are available. This raises the question of whether the Medicare enrollee gets full benefit out of the insurance, if he does not understand the coverage.

Many of the older people could be taken care of in their own homes with minimal health care supervision. This was the intent of Medicare (Title XVIII) legislation, however, home care services have become limited because of the changes in subsequent interpretation and revisions. Many of the respondents had poor knowledge of the fact that Medicare is concerned more with rehabilitation than with prevention and

therefore do not understand that their health condition determines their eligibility for service. The question is raised as to whether Medicare would more effectively meet the health needs of the aged if emphasis was on prevention and health maintenance along with rehabilitation.

Because of the aged individuals poor knowledge of Medicare, professional health workers must recognize and accept the responsibility of informing themselves about the program so that they will be able to teach and counsel families intelligently concerning its benefits. It seems reasonable to assume that knowledgeable health workers would influence the utilization of services on the patients' behalf.

Recommendations

As a result of this exploratory study, it is recommended that the following studies be done.

1. This study should be replicated using a larger sample including people of different races and foreign born.
2. The questionaire be re-designed so that the relationship between knowledge of specific questions on Medicare and use of Medicare can be studied.
3. The questionaire be used to assess the health professional's knowledge of Medicare.

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APPENDIX

APPENDIX A

MEDICARE QUESTIONAIRE

Age

-65____

65-69____

70-74____

75-79____

80-84____

85-89____

90-up____

Highest grade completed in school

____6 years

____6-8 years

____9-12 years

____12 plus years

Male _____

Female ____

MEDICARE QUESTIONAIRE

INTRODUCTION: Medicare legislation is difficult for many of us to understand. By answering some questions regarding Medicare, you will be assisting me to identify some areas of misunderstanding. After you have answered the questions, I will go back over them and clear up any misunderstandings or questions you might have.

I would like to begin by asking you some questions about insurance in general:

1. Do you approve of Medicare?

_____Yes

_____No

_____Don't know

2. Do you have Medicare insurance?

_____Yes

_____No

3. How long have ycu had Medicare?

_____Under 1 year

_____year

_____2 years

_____3 years

_____4 years

_____Over 4 years.

4. Have you read your Medicare booklet?

_____Yes

_____No

_____Don't know

5. Everyone enrolled in Medicare insurance has the Part A plan (Hospital coverage). Part B is optional (Medical coverage). Do you have Part A and B?

_____Yes

_____No

_____Don't know (See card)

6. Did you have health insurance when you enrolled in Medicare?

_____Yes

_____No

_____Don't know

7. If yes, did you keep it?

_____Yes

_____No

8. If you chose not to keep it, why was it dropped?

_____Too expensive

_____Thought Medicare was adequate

_____Other_____

9. Did you know that there are insurance companies that will write health insurance for people with Medicare?

_____Yes

_____No

10. If so, do you have such a policy?

_____Yes

_____No

11. Are you satisfied with it?

_____Yes

_____No

Why?

12. If you don't have such a policy, do you think it would be helpful to have one?

_____Yes

_____No

Why?

13. Have you ever used Medicare?

_____Yes

_____No

14. When did you last use Medicare: Date:_____

15. Did Medicare cover the expenses that you expected when it has been necessary to use it?

_____Yes

_____No

_____Don't know

_____No answer

Will Part A Medicare help pay for care in:

		Yes	No	Don't Know
16.	Private Hospital	_____	_____	_____
17.	County Hospital	_____	_____	_____
18.	Tuberculosis Hospital	_____	_____	_____
19.	Psychiatric Hospital	_____	_____	_____
20.	Extended Care Facility	_____	_____	_____
21.	Home Health Agency	_____	_____	_____
22.	Christian Science Sanitorium	_____	_____	_____

If you were hospitalized, Part A Medicare would pay for the following situations:

		Yes	No	Don't Know
23.	Private room	_____	_____	_____
24.	Operating room charges	_____	_____	_____
25.	Dressings, bandages	_____	_____	_____
26.	Intensive care nursing	_____	_____	_____
27.	Private duty nurses	_____	_____	_____
28.	Laboratory tests; eg. blood tests	_____	_____	_____
29.	X-rays	_____	_____	_____
30.	Medications (all)	_____	_____	_____
31.	Doctors visits	_____	_____	_____
32.	Telephone	_____	_____	_____
33.	Television	_____	_____	_____
34.	Wheelchair	_____	_____	_____

PART A MEDICARE: I would like to now discuss the Part A, hospital plan with you.

35. What is a benefit period? Select one of the following:

_____A benefit period begins each time you enter a hospital and ends when you leave.

_____A benefit period begins when you enter a hospital and ends when you have received no services from a hospital, extended care facility, or home health agency for sixty days in a row.

_____A benefit period is determined by the physicians orders.

36. Are a benefit period and "spell of illness" the same thing?

_____Yes

_____No

_____Don't know

42. If your Doctor advised you to go to an extended care facility for cure; would you have to go to a hospital first for 3 days before going to an ECF in order for Part A Medicare to help pay your bill?

_____Yes

_____No

_____Don't know

43. Does your Doctor have to refer you to an extended care facility within 14 days after hospitalization for Part A Medicare to help pay your bill?

_____Yes

_____No

_____Don't know

44. Do you have to have a health condition that requires continuing nursing care and/or rehabilitative services in order to qualify for ECF benefits under Part A Medicare?

_____Yes

_____No

_____Don't know

45. If you were in an extended care facility and only needed help with personal care, would Medicare help pay your bill?

_____Yes

_____No

_____Don't know

46. If you were in an extended care facility and had a health condition that required physical therapy treatments, would Part A Medicare help pay your bill?

_____Yes

_____No

_____Don't know

47. If you were eligible for care in an extended care facility, Part A Medicare would pay which of the following:

_____The entire cost of care for 100 days.

_____For all covered services for 100 days.

_____For all covered services for 20 days and all but $6.50 a day for 80 days.

If Part A Medicare is to pay for a Home Health Agency to provide services for you in your home would you have to:

48. be hospitalized for at least 3 days or in an extended care facility before being referred to a Home Health Agency?

_____Yes

_____No

_____Don't Know

49. be referred by your Doctor within 14 days after being discharged from a hospital or extended care facility?

_____Yes

_____No

_____Don't know

50. have a health condition that would require skilled nursing care or rehabilitative services such as physical therapy?

_____Yes

_____No

_____Don't know

51. If you were eligible for care by a Home Health Agency, Part A Medicare would pay which of the following:

_____Entire cost of services provided for 100 days or 100 visits under a benefit period.

_____50% of the cost of services provided for 100 visits.

_____80% of the cost of services provided for 100 visits.

52. If you were at home and only needed help with bathing and other personal care, would Part A Medicare pay a Home Health Agency to provide this service?

_____Yes

_____No

_____Don't know

53. If you were ill at home and unable to fix your own meals or do your housework, would Part A Medicare pay a Home Health Agency for this service?

_____Yes

_____No

_____Don't know

54. If you were ill at home and needed someone to care for you continually, would Part A Medicare pay a Home Health Agency for this service:

_____Yes

_____No

_____Don't know

Now I would like to discuss Part B, Medical Plan with you:

Does Part B Medicare help pay for the services provided by a:

		Yes	No	Don't Know
55.	Medical physician	_____	_____	_____
56.	Osteopathic physician	_____	_____	_____
57.	Chiropractic physician	_____	_____	_____
58.	Naturopathic physician	_____	_____	_____
59.	Licensed podiatrist	_____	_____	_____
60.	Dental Surgeon	_____	_____	_____

Does Part B Medicare help pay for:

61.	Routine physican examinations	_____	_____	_____

	Yes	No	Don't Know
62. Treatment of medical and surgical conditions	_____	_____	_____
63. Medications - (self administered)	_____	_____	_____
64. Diagnostic tests in the physicians office	_____	_____	_____
65. Eye Examinations	_____	_____	_____
66. Hearing Examinations	_____	_____	_____
67. Outpatient services eg. physical therapy	_____	_____	_____
68. Home health care	_____	_____	_____
69. Ambulance service	_____	_____	_____
70. Physicians visits while hospitalized	_____	_____	_____

71. Do you have to pay a deductible amount for Part B services?

_____Yes

_____No

_____Don't know

72. How often must the deductible amount be paid?

_____Once in a calendar year

_____Every three months

_____Every six months

73. Do you know that the current deductible amount for Part B is $50.00?

_____Yes

_____No

_____Don't know

74. Do you have to pay a portion of the charges for services under Part B after you have paid your $50.00 deductible for the year?

_____Yes

_____No

_____Don't know

75. After you have paid the yearly $50.00 deductible for Part B services:

_____Medicare will pay 80% of the "reasonable charges" and you must pay 20%.

_____Medicare will pay 50% of the "reasonable charges" and you must pay 50%.

_____Medicare will pay 20% of the "reasonable charges" and you must pay 80%.

76. If you were ill and needed a wheelchair would Part B Medicare pay 80% of the rental or purchase cost if the Doctor ordered it?

_____Yes

_____No

_____Don't know

Now I would like to discuss billing information with you?

77. If you have questions about the amount Medicare will pay or has paid on your bill, you would contact:

_____Aetna Insurance office in Portland, Oregon.

_____Social Security Office in Portland, Oregon!

_____Don't know

78. Medicare will pay the Physician directly if he agrees to send the bill to Aetna for you:

_____Yes

_____No

_____Don't know

79. If you prefer, you may send your medical payment form to Aetna and Medicare will pay you directly; in turn you must pay your physician:

_____Yes

_____No

_____Don't know

80. Before Medicare will pay 80% of the "reasonable charges" you must prove that the yearly $50.00 deductible is paid by sending in the paid bills to Social Security as soon as possible.

_____Yes

_____No

_____Don't know

81. If you are dissatisfied with the amount Medicare pays for your medical expenses, you have recourse through a Board of Appeals.

_____Yes

_____No

_____Don't know

AN ABSTRACT OF THE THESIS OF

MARILYNN HUTCHINGS HOGREFE

for the MASTER OF SCIENCE IN NURSING EDUCATION

Date of receiving this degree: June 9, 1972

Title: A STUDY OF THE KNOWLEDGE
THAT OLDER PEOPLE HAVE
ABOUT MEDICARE

Approved: [redacted]

Many interrelated factors account for the creation of the Medicare Program: increased longevity and limited personal resources of the aged; declining health and high medical costs; inadequacy of voluntary health insurance; and finally, failure of public assistance provisions to reach the indigent aged. The Medicare law was enacted in 1965 in an attempt to overcome some of these problems of the aged population. The literature did not reveal that attempts had been made to evaluate the effectiveness of the Medicare Program in meeting the health care needs of the aged; therefore, this study was done.

The purpose of the study was to measure the amount of knowledge people 65 and over have about Medicare. A tool was developed consisting of 81 fixed alternative and multiple choice questions based on information from the Medicare handbook. It was divided into four categories; general information, questions on Part A Medicare (Hospital Plan), questions on Part B Medicare (Medical Plan) and questions on Medicare Claims Processing.

The respondents included in the study were contacted by telephone to explain the purpose of the study; they were asked if they were willing to participate; and if they were, an appointment was made for the interview. The criteria for selection of the respondents were: white, 65 and over, able to communicate, living in their own homes, not currently using Medicare and willing to participate in the study. The study

population consisted of 35 people and the results cannot be generalized beyond the sampling method employed. One-third of the respondents were male and two-thirds were female. The respondents ranged in age from 65 to 87 years and their mean educational level was nine to 12 years. All of the respondents had Medicare and 71.0 percent had been enrolled in the program four years; 68 percent of the respondents had used Medicare. There was a negative relationship between knowledge of what plan(s) the respondents had and their use of Medicare.

Knowledge of Part A, the Hospital Plan and of Part B, the Medical Plan, was categorized into three subject areas: benefits, services, and deductible amounts. An arbitrary rating scale was developed and used to determine the level of knowledge of the respondents. Level of knowledge was related to percent of correct responses. The range of possible correct responses for Part A and Part B Medicare was based on the total of 81 questions. The range of correct responses was from five to 46. The respondents overall knowledge of the total Medicare Health Insurance Program was inadequate; 46 percent had fair knowledge, 34 percent had poor knowledge, and 14 percent had very poor knowledge. The respondents' knowledge of Part B was better than their knowledge of Part A Medicare. Over 50 percent of the respondents knew that care in private hospital and home

health agency were covered by Part A Medicare. Of the respondents, only six knew that Part A covered extended care facilities. Approximately half of the respondents had correct information about Medicare coverage of medications and 43 percent had incorrect information about doctors visits under Part A Medicare. Most of the respondents had very poor knowledge of the benefit period which is important for them to know in order to understand how often it is necessary to pay the Part A deductible; over two-thirds of the respondents did not know the frequency that the Part A deductible had to be paid. The respondents had poor knowledge of the length of time and the amount Part A Medicare would pay for hospital, extended care facility, and home health agency services. Less than half of the respondents knew that they must be hospitalized at least three days prior to extended care facility or home health agency admission and that the referral must be made within 14 days after discharge from a prior service. Eighty-six percent of the respondents knew that Part B Medicare covered physician services. More than two-thirds of the respondents knew whether or not Part B Medicare covered treatment of medical surgical conditions, self administered medications, eye examinations, hearing examinations and physician visits. Sixty-eight and a half percent of the respondents knew that the deductible amount for Part B Medicare is to be paid once each calendar year however,

only 45.7 percent of the respondents knew that they must pay a deductible for Part A Medicare,also, if it is used.

The review of the literature of learning revealed that the aged individual is able to learn and particularly, if it is relevant to his needs. Information about Medicare which was designed to reduce concerns about health care costs should have been a motivating factor and in terms of learning, it might be thought that the respondents' knowledge would have been higher.

The study indicated that the respondents often did not know what Medicare covered and that they were confused about the coverage offered by Part A and Part B Medicare. It is important that Medicare enrollees understand the coverage because under the Part B plan they are responsible for twenty percent of all costs. For instance, many of the respondents thought Part A Medicare covered doctors visits which are covered by Part B. There was poor knowledge of the amount of payment and the length of time covered for facility services by Medicare. Although, it looked as though the respondents had adequate knowledge of the deductible amount required by Part A and Part B Medicare, there appeared to be confusions as to how often these amounts must be paid. Incorrect or inadequate knowledge about Medicare coverage can plan the aged individual at a disadvantage as it prevents him from being able to financially plan and to utilize services that are available. This raises the question of whether the

Medicare enrollee gets full benefit out of the insurance, if he doesn't understand the coverage.

Many of the older people could be taken care of in their own homes with minimal health care supervision. This was the intent of Medicare (Title XVIII) legislation, however, home care services have become limited because of the changes in subsequent interpretation and revisions. Many of the respondents had poor knowledge of the fact that Medicare is concerned with rehabilitation more than with prevention and therefore, do not understand that their health condition determines their eligibility for service. The question is raised as to whether Medicare would more effectively meet the health needs of the aged, if emphasis was on prevention and health maintenance along with rehabilitation.

Because of the aged individuals poor knowledge of Medicare, the professional health worker must recognize and accept the responsibility of informing themselves about the program so that they will be able to teach and counsel families intelligently concerning its benefits. It seems reasonable to assume that knowledgeable health workers would influence the utilization of services on the patient's behalf.