

HEALTH VALUES, INCENTIVES, AND SOCIAL SUPPORT
RELATED TO HEALTH PROMOTION BEHAVIORS IN
THE WELL-ELDERLY

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BY
MARY ANN PASCUCCI, B.S.N., M.S.

DENTON, TEXAS

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TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

March 30, 1937
Date

To the Provost of the Graduate School:

I am submitting herewith a dissertation written by:

Mary Ann Pascucci, B.S.N., M.S.

entitled Health Values, Incentives, and Social Support
Related to Health Promotion Behaviors in the Well-
Elderly

I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Helen A. Bush
Major Professor

We have read this dissertation
and recommend its acceptance:

Leggy J. Drape
Carol A. Danner
Margaret T. Beard
Sharon C. Underwood

Accepted
Leslie M. Thompson
Provost of the Graduate
School

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To ward off disease or recover health, man as a rule
finds it easier to depend on the healers than to
attempt the more difficult task of
living wisely.

Rene Dubos

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I wish to extend appreciation to Patti Hickman for her efficient statistical programming and analysis.

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ABSTRACT

MARY ANN PASCUCCI, B.S.N., M.S.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
MAY 1987

Health promotion behaviors in well older persons were investigated in a descriptive correlation design. The sample of 30 participants was randomly selected. The study related health values, incentives, and social support to health promotion behaviors. The theoretical framework was comprised of Veroff and Veroff's (1980) Theory of Social Goals and Pender's (1982) Health Promotion Model.

Structured interviews were conducted at six public senior citizen centers and one private retirement home in metropolitan Oklahoma City. The interview schedule consisted of five parts: Demographics, the Fomby Health/Health Promotion Value Scale (1985), the Health-Promoting Lifestyle Profile by Walker, Sechrist, and Pender (1986), the researcher-developed Incentive-Health Promotion Scale, and the Personal Resource Questionnaire-Part II by Brandt and Weinert (1981).

Test score data were subjected to computerized Pearson's product-moment coefficient of correlation and Spearman rank order correlation to determine relationships. Friedman H and Cronbach's alpha were used to test for reliability of instruments.

Findings revealed:

1. There is a significant relationship between the health values between mature love (-0.36194 , $p < 0.0494$), and true friendship (0.40437 , $p < 0.0267$) and the health promotion behaviors of health/responsibility, self-actualization, exercise, nutrition, interpersonal support, and stress management.

2. There is a significant relationship between incentives of fitness/health, appearance, medical advice, socialization, pressure, independence, fun, feeling, good, and belongingness ($r = 0.54298$, $p < 0.0019$) and health promotion behaviors.

3. There is a significant relationship between social support ($r = 0.63743$, $p < 0.0001$) and health promotion behaviors.

4. There are no significant relationships between gender, age, race, marital status, living arrangements, education, and health promotion behaviors.

Conclusions were:

1. Older persons value friendship.
2. Attitude changes in older persons are necessary in order for health promotion care practices to be effective.
3. Incentives are an essential multifaceted aspect of motivation.
4. Social support is an important component of good health.

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CHAPTER I

INTRODUCTION

There have been many people who have lived long, productive lives. Michelangelo, sculptor, painter, architect, and poet of the Italian Renaissance, was 71 when he was appointed chief architect of Christendom's greatest architectural development. This is St. Peter's in Rome. For the next 18 years until his death at age 89, he painted the walls of the Pauline Chapel (Comfort, 1976).

Margaret Mead, one of the founders of psychological anthropology, made a field trip, at the age of 72, to restudy the Arapesh people of New Guinea. In 1975, a television film traced a typical week in her life, including a two-seater flight to a Navajo Indian reservation. It was a week so packed with work that it would have exhausted anybody half her age (Comfort, 1976).

Artur Rubinstein was 89 years old when he gave one of the most remarkable recitals in the history of New York's Carnegie Hall. He could no longer see well enough to read music because of a serious eye condition, yet, relying entirely on his memory, he played better than he had ever played before (Comfort, 1976).

These famous people are just a few examples of well senior citizens one can marvel about. Research has shown that people who stay healthy into their 80s have four things in common: they have remained active intellectually, physically, and socially and are on a nutritionally stable diet (Dolan, 1980).

Generally, it has been shown that health promotion has the potential to augment the quality and length of life in all ages (Taylor et al., 1982). Small gains in health, or even a slight reduction in the rate of decline, may make a major difference in the quality of life or the degree of independence of the older person (Surgeon General's Report, 1979). Health promotion and understanding the factors that motivate the older person to take action to protect and promote health are becoming increasingly important.

Problem Statement

The problem of the study was: What are the relationships between health values, incentives, and social support in health promotion behaviors in the well elderly at senior centers?

Purposes of the Study

Even though health promotion has been covered in the literature, the incentives to health promotion remain

virtually untouched. Furthermore, the focus of health promotion in senior citizens has been uncovered in only recent years and analyzing the relationships can contribute to a society that is growing older.

Objectives for this study include:

1. To determine the relationships between health values and health promotion behavior.
2. To determine the relationship between incentives and health promotion behavior.
3. To determine the relationship between social support and health promotion behavior.
4. To determine the relationship of various independent variables and health promotion behavior.

Rationale for the Study

The concept of health promotion has evolved from a historically rich background. Some of the earliest references to health may be found in the Code of Hammurabi (circa 2000 B. C.) and the Mosaic Law. Of course, these sources were not confined to concerns with disease prevention, even though communicable disease control was certainly a foremost health challenge (Moore & Williamson, 1984).

To many, the concept of wellness appears to have little application to an older person. Youth is perceived

as a time of health and happiness; middle age as the epitome of what life has to offer; and old age as a time of life characterized by illness and regret for what might have been. The aged are stereotyped and categorized, objects of pity who are certainly not candidates for health-promotion activities. While it is true that 80% of those over 65 have one or more chronic diseases, most persons function quite well and the fact that 14% of the elderly have no chronic illness at all should not be overlooked (Kee, 1984).

Health promotion is applicable to the older person although numerous chronic diseases have their origins in such factors as diet, exercise, smoking, or environment that are present many years before onset of overt disease. Many will be "elderly" for 10 or 20 years (half of those reaching 65 will live to be at least 80 years old; one-third of those reaching 65 will live to be 85) (Filner & Williams, 1979).

The American Medical Association now estimates that as much as 80% of the disease that plagues Americans is lifestyle related. The primary killers are now cardiovascular disorders, stroke, cancer, respiratory diseases, diabetes, and arthritis. For all of these

illnesses, there can be a considerable degree of individual and social influence and control (Dychtwald, 1983).

Nursing can strive to improve the health promotion practices of and for older persons. First of all, nursing has a professional and philosophical commitment to holistic health care, and health promotion is a major focus of nursing. Since one of the primary responsibilities of nursing is health promotion, there must be a realistic understanding that aging is a normal process and not a disease. Second, societal stereotypes must be recognized and guarded against, and the quality of life depends upon the maintenance of appropriate levels of activity and independence that will lead to a sense of well-being (Collins, 1982). Third, there is evidence demonstrating that healthy, active individuals often exhibit little decrement in psychological functions in later years (Birren, 1965; Marteniuk, 1963; Szafran, 1968). Last, there are motivational forces in operation that instigate the older person to health promotion. These forces can be reinforced in programs of health promotion for the older person. These programs will become increasingly important since the statistics show there will be a population explosion of old people between now the year 2040 (Ubell, 1984).

The long-term goal of health promotion for the over-65 population must be not only to achieve further increases in longevity, but also to allow each individual to seek an independent and rewarding life in old age, unlimited by many of the health problems that are within his or her capacity to control (Creek & Melthler, 1984).

The older person requires more frequent physician visits, longer hospital stays, as well as more periods of illness at home which may result in more physical and emotional disability (Butler & Lewis, 1973). Many lack the skill and energy to overcome the barriers to adequate health care. Some older people believe the symptoms of illness are normal and inevitable results of aging and do not seek help (Hain & Chen, 1976). Many are aware of their needs for help but lack the knowledge required to reach services.

The literature reveals a paucity of material in relation to the incentives in health promotion. However, incentives in health promotion have been covered in the literature in relation to government incentive programs for cost-effectiveness in health care. In addition, the trend today is for company-sponsored incentive programs for physical fitness (Green, 1979). Green (1979) suggested that incentives should be used to change health behavior.

Pender (1982) introduced a health promotion model that discussed motivation as a great force in health promotion.

According to Schoolcraft (1984), there are three areas in which research about health promotion are most needed: (a) studies to demonstrate the efficacy of health-promoting activities, (b) studies to determine the factors that contribute to health habits, and (c) studies to identify ways of motivating people to adopt healthy lifestyles. The last two are relevant to the study at hand. Motivation is related to what influences people to adopt healthy or unhealthy lifestyles. As a deeper understanding of motivation is gained by health professionals, efforts which could be successful in influencing health behavior may be clarified. There is current knowledge that shows the powerful influence of family, friends, and societal determinants on health behavior (Schoolcraft, 1984).

Theoretical Framework

Two theoretical formulations were used in the study; Veroff and Veroff's (1980) theory of social goals, and Pender's (1982) health promotion model. Veroff and Veroff's theory is a derivative of an expectancy-value theory seen in the works of Atkinson and Feather (1966), Rotter (1954), Tolman (1938), and others. The theory focuses on nonconscious reasons called values which are

anticipated end-states toward which a person strives. A common theme in most definitions of value is some affective appraisal of an event or commodity. The framework for motivation depends a great deal on the theoretical position that critical concepts in understanding behavior are some notion of values, which are called incentives in Veroff and Veroff's theory and of expectancies for these incentives. Some combination of these two factors will affect a person's behavior at a given moment in time. The third concept of their framework is behavioral tendency.

A behavioral tendency, as defined by Veroff and Veroff, is the potential to act in a certain way in a person's repertoire, however poorly developed, in response to the type of setting represented by specific stimulus conditions. A positive incentive is an anticipated transaction with the environment, external or internal, that has some attraction to the person such that when it is in the person's field, it increases the possibility that behaviors directed toward that transaction will occur. Negative incentive is defined in reverse, in that an anticipated transaction with the environment, external or internal, that has some repulsion to the individual such that when it is in the person's field, it decreases the possibility that behaviors directed toward that transaction

will occur. The perceived probability that a given behavioral tendency will lead to a given incentive is expectancy (Veroff & Veroff, 1980).

Veroff and Veroff propose engagement and consolidation as predominant modes of motivation during a given stage of cognitive differentiation of social experience. They also propose that there are eight basic stages of social development, and that for each a basic social incentive system will be generated (see Appendix A). A brief discussion of each stage follows.

I. Curiosity

During the engagement part of the first stage, infants learn to differentiate self from others. The child is engaged in exploring for the sake of "knowing." Since an affect about knowing is built into human survival processes, the existence of an anticipatory pleasure from knowing something new is the basis for the curiosity incentive.

II. Attachment

During the consolidation stage, the person realizes that some stimuli in the outside environment are more valuable than others. Once the child learns to value familiarity, then he or she has differentiated the incentive of attachment.

III. Assertiveness

The child gradually experiences the awareness of its own behavior. This stage can be subdivided into three different components: aggression, power, and achievement. Such development depends upon the maturation of cognitive skills.

IV. Social Relatedness

As the child learns to understand the reactions toward his assertions, a new incentive system emerges. This is the consolidation of self-development and is called social relatedness. The major basis of reinforcement of this incentive is the pleasure and approval of significant others.

V. Belongingness

This incentive arises from the child's growing exploration of how he or she fits into the larger social system: where he belongs, who his reference groups are, what he is likely to achieve, how other people will react to him.

VI. Consistency

There are many groups to belong to and too many conflicts. At some point, a person attempts to fuse his or her roles into one identity, thus giving consistency.

VII. Interdependence

In this stage, the person faces the task of recognizing both the dependence of self on others and the independence of self from others.

VIII. Integrity

A person questions or contemplates his own continuity, removed from his world. He or she thinks about being alone. This stage can occur whenever the person is faced with some amount of separation from an ongoing social system.

Inherent in these stages is that most social situations are multi-incentive conditions. Different people will emphasize different incentives depending on their personal disposition (Veroff & Veroff, 1980).

Veroff and Veroff give examples to clarify these incentive situations. "If a man wishes to hurt another, he can anticipate feeling pleasure in hostility (assertive incentive). If you think a person will smile at you for what you've done, you experience a relatedness incentive" (p. 30).

Gratification is a reaction to the occurrence of an incentive following behavior directed toward positive incentive, or the nonoccurrence of a negative incentive following behavior directed away from the incentive. Likewise, the intensity of gratification is a function of the number of occurrences of gratification, the more commitment there is to the

behavior directed toward the incentive to begin with, the greater the sense of gratification. (p. 32)

Veroff and Veroff (1980) proposed another set of factors affecting the strength of incentives: the impact of expectancies. There are the probability of success and the degree of perceived personal contact of gratification. In achievement motivation, it is often assumed that the incentive is a direct function of expected difficulty of performance. "The more difficult a task is, the higher the achievement incentive" (p. 34). Also, the perceived probability of success or the expectancy of attaining any given incentive will affect, in some measure, the strength of that incentive.

An important statement by Veroff and Veroff (1980) is that when people are forced by circumstances to see their own behavior as being personally caused and not environmentally controlled, they come to value that behavior very highly. Thus, their incentives for that activity increase. A structural representation of the major concepts of Theory of Social Goals is presented in Appendix B.

The second theoretical framework used is Pender's (1982) Health Promotion Model. According to Pender the determinants of health-promoting behavior are categorized

into individual perceptions, modifying factors, and variables affecting likelihood of action.

Personal factors that facilitate or sustain health-promoting behavior have been identified within Pender's model as (a) importance of health, (b) perceived control, (c) desire for competence, (d) self-awareness, (e) self-esteem, (f) definition of health, (g) perceived health status, and (h) perceived benefits of health promoting behavior. Each is hypothesized to have motivational significance. A structural representation of this model is provided in Appendix C.

I. Importance of Health

The data support the notion that placing a high value on health results in information-seeking behavior directed toward health. Value of health is a key motivational factor according to Pender.

II. Perceived Control

Perceiving to be in control as well as having a desire for control should result in overt health-promoting behavior.

III. Desire for Competence

As individuals become increasingly complex, the desire for competence can be differentiated into motives such as mastery, achievement, power, and autonomy.

IV. Self-awareness

The experience of increased self-awareness appears to play an important role in motivating continued practice of health-promoting behavior.

V. Self-esteem

The inclusion of self-esteem as a motivational factor in health promotion is based on the assumption that individuals who regard themselves highly are more likely than persons with low self-esteem to set aside time for involvement in health-promoting behaviors.

VI. Definition of Health

The definition of health to which an individual subscribes is likely to influence the extent to which he engages in health behaviors.

VII. Benefits of Health-Promoting Behaviors

Perception of benefits from health-promoting behavior appears to facilitate continued practice of newly-acquired behaviors.

According to Pender (1982), the major forces of motivation for human behavior have been identified as actualizing and stabilizing tendencies.

A tendency is an active impulse or force to do something. The actualizing tendency is directed toward increasing states of positive tension in order to promote change, growth, and maturation. Health-promoting behaviors are presented as manifestations of the actualizing tendency. Health-promoting behaviors

are directed toward enhancing well-being and the expression of human potential. (p. 14)

Basically, Pender indicated that individuals are motivated to engage in health-promoting behaviors when they place a high value on personal worth and are aware of their own capacity for growth. Health-promoting behaviors are self-initiated actions on the part of individuals to enhance health status in the absence of a specific health threat.

According to Pender (1982), the social support system represents an enduring pattern of continuous or intermittent ties that play a significant role in maintaining psychologic and physical integrity of the individual over time. Social support groups appear to be highly significant in the promotion of health and in assisting clients to cope with stressful life experiences. The extent to which life change threatens well-being and health may depend to a large extent on the support available from significant others (Pender, 1982).

The propositions to be tested from each theory are:

1. Individuals are motivated to engage in health-promoting behaviors when they place a high value on health results (Pender, 1982).

2. A positive incentive is an anticipated transaction with the environment, external or internal, that has some

attraction to the person such that when it is in the person's field, it increases the possibility that behaviors directed toward that transaction will occur (Veroff & Veroff, 1980).

3. Social support positively influences health (Pender, 1982).

4. The demographic variables of sex, marital status, living arrangements, and income influence health promoting behaviors (Berkman & Syme, 1979; Langlie, 1977; Pender, 1982; Surgeon General's Report, 1979).

Assumptions

Assumptions about the problem:

1. Values are anticipated end-states toward which a person strives (Veroff & Veroff, 1980).

2. People find certain incentives important, whereas others are oriented toward different incentives (Veroff & Veroff, 1980).

3. Persons desire a healthful state (Pender, 1982).

4. Persons value social goals (Veroff & Veroff, 1980).

Hypotheses

Research hypotheses tested in the study were:

1. There is a significant relationship between health values and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory.

2. There is a significant relationship between incentives and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory.

3. There is a significant relationship between social support and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory.

4. There is a significant relationship across all selected independent variables from the demographic inventory and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory.

Definition of Terms

The following terms were defined for the study:

1. Well-elderly--those persons 65 years old and older who are healthy in spite of the presence of chronic

disease; who function well and who are socially competent (Hartford, 1981).

2. Health-promotion behaviors--activities directed toward developing the resources of clients that maintain or enhance well-being (Pender, 1982) as measured by Walker, Sechrist, and Pender's Health-Promoting Lifestyle Profile Scale (1986).

3. Health value--the importance placed on reducing threat of illness and/or enhancing health status (Pender, 1982) as measured by an adapted version of the Fomby Health/Health Promotion Value Scale (1985).

4. Incentives--anticipated transactions with the environment, external or internal, that have some attraction to the person such that when it is in the person's field, it increases the possibility that behaviors directed toward that transaction will occur (Veroff & Veroff, 1980) as measured by an Incentive-Health Promotion Scale developed by the investigator (1986).

5. Social support--a list of statements regarding a set of personal contacts through which a person receives emotional support as measured by Brandt's and Weinert's Personal Resource Questionnaire-Part II (1981).

Limitations

The limitations include:

1. The inability to control extraneous variables because of the descriptive research design.
2. One section of the instrument (Part IV-Incentives) was developed by the investigator and has validity on a small sample. In addition, social desirability of the tool was not tested.
3. The sample size is small so generalizability is tentative.
4. Validity of interview information is complex. A major source of invalidity in the interview is the reactive effects of the interview itself, in which there is modification of responses simply because of being interviewed (Waltz et al., 1984).
5. Since the study will be limited to one selected county and selected group of elderly at senior centers, the results can only apply to that area.

Delimitations

1. The study was limited to those elderly who were willing to participate.
2. The sample was limited to well-elderly from 65 to 90.

3. The sample was limited to 30 participants from various senior citizens' centers in Oklahoma County taken from an Areawide Aging Area Directory.

Summary

Chapter I has presented the problem of the study. The relationships between health values, incentives, and social support in health promotion behavior in the well elderly at senior citizen centers were researched. The theoretical frameworks used in explanation of the study were Veroff and Veroff's (1980) Theory of Social Goals, and Pender's (1982) Health Promotion Model. The assumptions, propositions, and hypotheses were also listed.

CHAPTER II

REVIEW OF LITERATURE

This chapter addresses the concept of health promotion in relation to health values, incentives, and social support. Health promotion in general is addressed and then the concepts are reviewed together. First, the concepts are reviewed, then research studies pertaining to the concepts are covered.

Health Promotion

Health promotion includes the active and purposeful bringing about of necessary changes, marshalling required resources, and carrying out whatever activities are necessary to develop, sustain, and increase healthy functioning (Schoolcraft, 1984). Health promotion signifies a shift from the biomedical definition and model of health and disease toward a broader biopsychosocial view that encompasses the social and physical environment, as well as individual lifestyle and behavior (McKeown, 1976). Some activities which might reasonably be expected to improve physical or emotional well-being include eight core health practices: nutrition, weight control, exercise, appropriate use of alcohol, avoidance of tobacco,

appropriate use of drugs, rest and sleep, and stress management (Taylor et al., 1982).

As American lifespans increase, there is greater concern for the quality of those longer lives. The Department of Health and Human Services, through its many component agencies, has inaugurated a major initiative to promote health and fitness among older Americans to improve life quality and to reduce health care costs. The older population is a fertile ground for such an initiative, because studies indicate that the elderly are extremely health-conscious and very willing to adopt habits that will maintain good health (Heckler, 1985).

While all illness and disease cannot be eliminated, the well-being of older Americans can be improved through the adoption of good health practices (Heckler, 1985). Longevity and the quality of life are intimately related. In some instances, excess mortality can be attributed to obesity, lack of exercise, substance abuse, and stress in daily life (Taylor et al., 1982).

Several studies indicate that older people are anxious to maintain their functional independence. Some believe their willingness to adopt healthy behavior exceeds that of any other age group (Heckler, 1985).

Health promotion is generalized and geared to improving the individual's general level of functioning rather than to ward off or treat any specific disease condition. Health education leads the list of health promotion measures and is, therefore, the primary focus of much research in this field (Edelman & Mandle, 1986).

Edelman and Mandle (1986) reviewed research studies covering health promotion, and they found that in 25 studies the primary target population was school-age persons based on 17 studies. Seven programs focused on adults, and only one program served a clearly defined elderly population. They also stated that socioeconomic factors are related to certain health practices.

Harris and Guten (1979) conducted an exploratory study of health-protective behavior. Health-protective behavior is any behavior performed by a person, regardless of his or her perceived or actual health status, in order to protect, promote, or maintain his or her health. Data from 842 randomly chosen respondents in the Greater Cleveland area were collected. Forty-six percent of the sample were male; 25% were non-white. Thirty-three percent of the respondents were between 18 and 34 years of age, 35% between 35 and 54, and 32% 55 and over. The findings indicated almost all respondents performed some kind of

health-protective behavior. Over 70% of the respondents reported some health-protective behavior concerning general nutrition, specific foods, or how and when they ate. Next in frequency (46%) were reports of behavior concerning how, when, and how long or often respondents slept, rested, and relaxed. Slightly more than one in three respondents (35.5%) mentioned behavior concerning exercise or similar physical activity or recreation. The study also showed that gender was unrelated to health and safety practices. Age was the strongest predictor of health practices. The factors of family income and health practices ($F = 4.03$, $p < .01$), and education and health practices ($F = 4.52$, $p < .01$) are related. The factors of family income and preventive care ($F = 8.14$, $p < .01$), and education and preventive care ($F = 5.92$, $p < .01$) are related.

In a study by Mechanic and Cleary (1980), various factors associated with positive health behavior were measured. Mechanic and Cleary used an index based on eight measures of health response such as seat belt use, smoking, exercise, and risk taking. The data indicated that the variables most substantially related to the index of positive health behavior were being female and having more education. The report did not indicate age of subjects except calling them healthy youth. In their analysis,

Mechanic and Cleary discussed the lack of success in identifying developmental factors associated with positive health behaviors. Health maintenance appears to be integrated as part of an overall style of living, reflecting social values, psychological well-being, and integration into dominant cultural modes. By learning more about broad orientations, and how they are tied to social contexts such as work, school, voluntary organizations, and family life, researchers may identify those organizational and interpersonal incentives that reinforce inclinations toward positive health behavior.

A qualitative study by Johnson (1984) included a sample of 20 well-elderly women at a senior citizen center and revealed these women spoke of watching their weight, exercise, activity, and socialization as major themes. Mental ability was a major theme reported by all 20 subjects. The women spoke of health as a vehicle which allows them to do what they want to do. They did not want to be dependent on anyone.

Pierce, Yong, Guyer, and Chamberlain (1985) interviewed a total of 4,195 people in Sydney and 1,518 in Melbourne as part of the evaluation of the "Quit For Life" anti-smoking campaign. From a prompt card which listed seven health issues, respondents were asked to sequentially

nominate the major three issues the community should be most concerned about and also the issue that was the least important. The seven issues were: smoking, driving with over .05 mg percent blood alcohol, leading stressful lives, being overweight, lack of exercise, high blood pressure, and high cholesterol. In the 65 plus group, the respondents ranked smoking, high blood pressure, and stressful lifestyle as the top three issues. The authors reported that the issues that stood out as in need of increased promotional activity are cholesterol, exercise, and weight.

Muhlenkamp, Brown, and Sands (1985) looked at clinic clients' health beliefs, values, and demographic characteristics and the impact on health promotion activities. The 175 participants were clients of a nursing clinic in the southwest. The clinic has health promotion as a major focus and provides direct patient care services to approximately 400 clients a month. Of the 175 participants, 33 (19%) were males and 142 (81%) were females. The sample was predominately Caucasian (87%) with an age range of 17-84 years and a mean age of 27.8 years. Fifty percent (88) of the participants were Protestant, 27% (48) were Catholic, 19% (34) claimed no religious affiliation, and 3% (5) were Jewish. Forty-three percent

(75) of the sample were married, 35% (62) were single, and 21% (38) were separated, divorced, or widowed. Sixty-five percent reported a high school education or less, 26% had some college, and 8% held a baccalaureate or higher degree. Household incomes were relatively low with 70% at less than \$10,000 per year.

Muhlenkamp et al.'s (1985) findings in relation to the proposed study were that clients' health values were not significantly correlated with type of treatment sought or with self-reported lifestyle practices. Women were more likely than men to be engaged in self-reported health promotion practices but the reverse was found for the objective measure, health promotion visits to the clinic. Older clients reported significantly more positive health practices in the areas of substance use/abuse and safety and valued health more than did younger clients. Older clients also sought more health promotion and maintenance care than did younger clients. The greater the clients' education, the more they reported engaging in exercise and the higher were their lifestyle scores. Higher education and income were associated with fewer prevention visits.

The authors noted that the study results must be interpreted cautiously considering the nonrandom nature of the sample, although the sample did constitute

approximately 20% of the total number of the continuing client caseload. The findings were not congruent with the literature in two areas: (a) men had more health promotion visits than women, and (b) the non-relationship of health value and consequent health-related activity. The basic reason may be the difference between expressed intent and actual health-seeking behavior (Muhlenkamp et al., 1985).

Bausell (1986) conducted a study of health seeking behavior. Public and professional perceptions of the salutary effects of 17 preventive behaviors were compared. The public ($N = 1,254$), chosen randomly through a telephone-owning population of the United States, rated the majority of the behaviors as more important than the professional sample ($N = 103$) which was a purposefully selected sample of public health professionals. Exceptions were noted. Not smoking, wearing seat belts, and drinking in moderation were all considered substantially less important by the public in promoting health and longevity. The respondents were asked to rate 17 individually modifiable preventive behaviors on a scale from 1 (of low importance) to 10 (of utmost importance). Some of the behaviors rated included not smoking, wearing seat belts, not driving after drinking, owning smoke detectors, socializing with friends, exercising regularly, drinking in

moderation, maintaining recommended weight, checking blood pressure, controlling stress, taking vitamins/minerals, avoiding excess salt, and getting 7-8 hours sleep. In general, there were discrepancies between the public and professional sample; with the public affording higher absolute ratings to all the other behaviors except for socializing. The two most important behaviors from the professional point of view were not smoking and wearing seat belts. The results suggested that there is still work to be done in convincing the public of the health promotional benefits of such acts as ceasing to smoke, using seat belts, and drinking in moderation (Bausell, 1986).

Leventhal and Prohaska's (1986) two studies, dealing with age, symptom interpretation, and health behavior, had some interesting findings. The first study ($N = 396$) assessed the health practices and perceptions about illnesses in well adults (ages 20 to 89) as well as perceptions about symptoms associated with a group of six specific illnesses. The second community study ($N = 614$) examined how symptom qualities (symptom severity, duration, and illness label) affect attributions of symptoms to aging and coping strategies in response to the symptoms. The findings revealed that, while the elderly report more

frequent performance of health-promoting activities, perceptions about illnesses and how to prevent them are comparable across adulthood. The older respondents reported higher frequencies of specific activities traditionally seen as health-promoting, e.g., regular medical checkups, avoidance of salt, and eating a balanced diet. The oldest respondents also reported higher frequencies of practices for controlling affect, such as avoiding emotional stress and staying mentally alert and active. Only 1 of the 21 practices, exercise, was reported at lower frequency by older respondents. An N of 122 was reported for those 60 years and older.

Taylor et al. (1982) also listed categories of health promotion which have interactive effects on an individual's behavior. Some of these are: health beliefs, values, and social support systems available. This may indicate that senior centers are a strong factor in the role of health promotion.

Senior centers have the potential to bring together a broad and varied program of services and activities that enable older persons to develop and maintain health-promoting behavior. In an accessible, nonthreatening, and supportive setting, senior adults can join with peers to (a) learn information about lifestyle choices that promote

good health; (b) practice behaviors that support good health (e.g., exercise, nutrition, and stress-reducing techniques); and (c) gain peer support to assist in learning and in maintaining health behavior (Dychtwald, 1986).

Health Values and Health Promotion

A commitment to promoting health means adopting a particular set of values. It is an affirmation of a value system that ascribes top priority to feeling emotionally and physically fit (Taylor et al., 1982).

Some health experts have studied the inconsistency and apparent irrationality in health behavior and concluded that many people do not really value health. According to Hochbaum (1970), this conclusion is superficial and basically invalid. What is true is that, at any given time and under any given set of conditions, people's actions are influenced in many ways. Much inconsistency and apparent irrationality of people's health behaviors begin to make sense when behavior is examined in the light of reasons that prompt people to act the way they do. People carry out acts to promote or safeguard health for a variety of reasons (Hochbaum, 1970).

Pender (1978) conducted a pilot study using the Health Values Scale developed by Wallston, Maides, and Wallston (1976). Seventy-eight percent of 98 adults between 28 and 64 years of age identified health as an important value by placing it in first to fourth place.

According to a study by Brown, Muhlenkamp, Fox, and Osborn (1983) entitled "Relationship Among Health Beliefs, Health Values, and Health Promotion Activity," they found that 30% of the subjects ranked health as their highest value, and 22% ranked health second. The lowest ranking assigned to health by a subject was a three. The subjects were healthy, middle-class adults from a southwestern metropolitan area.

In another study, Laffrey and Isenberg (1983) found that even though the literature suggests variables as health value playing a role in an individual's undertaking a health promoting activity, this variable proved to have little effect in their study. Their sample of 70 women aged 24-65 (mean age 43 years) recruited from adult education classes in three midwestern cities revealed that these women did not relate physical activity to health, per se. Leisure time physical activity might be associated with enjoyment, attractiveness, and slimness. The reported mean number of years of education was 14. The mean yearly

family income was in the \$25,000 to \$50,000 range; 38% reported incomes over \$50,000 and 14% below \$25,000.

Laffrey and Isenberg (1983) discussed various reasons why health value had little effect in health-promoting activity of physical activities during leisure. If the attitude being measured is far removed from a given behavior, a relationship between the two would not be expected. Value placed on health may have been far removed from engaging in physical activities during leisure, whereas the degree of importance of physical exercise was more specific to engaging in physical activities.

Incentives and Health Promotion

From the Proceedings of the Texas Conference on Disease Prevention and Health Promotion 1990 Objectives (1984), motivation was felt to be a key factor in behavior change which cuts across the areas of health promotion. People will not change unless they are motivated to do so, and their motivation is often unrelated to health.

Hochbaum (1970) basically made the same statement that people carry out acts to promote health for different reasons. Several of these reasons or motivations can exist at the same time and combine to produce a given kind of health behavior. Thus, a person may select certain healthful foods because they are healthful but also because

the person happens to like them. Eating these foods has, in addition, become a long-established personal habit. Even when there is a belief that something is done for perfectly logical healthful reasons, it may be done for quite different reasons. Several motives may exist simultaneously. If they are compatible or if they demand the same action to satisfy them, then they tend to strengthen a person's desire to take the action.

Simpson (1986) stated that the patient's motivation will determine the success or failure of any exercise program. The most potent motivation is pleasure. Many studies have probed the conditions or attitudes most likely to be associated with continued participation in a fitness program. Factors associated with increased compliance include: (a) a spouse who supports participation or who is also involved in the program, (b) proximity to the exercise facility, and (c) freedom from injury during participation. Factors that have little or no relationship with compliance include: (a) previous athletic experience, (b) present level of fitness, and (c) attitude toward physical activity.

To date, there are few studies dealing with incentives and health promotion per se. Motivation and/or incentives to health-promoting behavior remain virtually untouched.

Dishman and Ickes (1981) developed a scale to assess self-motivation, conceptualized as a behavioral tendency to persevere independent of situational reinforcements. Their study focused on adherence behavior. Among some of the predictor variables they tested were: self-motivation, body weight, exercise as an ascetic experience, attraction to physical activity, exercise for health and fitness, achievement motivation, and social desirability. They found self-motivation was substantially related to certain behaviorally specific attitudes ($p < 0.01$). These included attraction to physical activity ($r = 0.53$) and perception of exercise as having health and fitness ($r = 0.58$) and ascetic ($r = 0.47$) values.

Weiss (1985) conducted a qualitative study on "Cues and Barriers to Health Promotion Behavior Perceived by Young and Middle-Aged Adult Anglo-American Women." Two of the five purposes of the study were to determine and understand from the individual's experience categories of cues that initiate plans to engage in a formal exercise program and categories of factors that promote continuation of a formal exercise program. Six women were in the 20-45 year young adult group and four women were in the 45-65 year middle-age group.

Some of the cues to action in the middle-aged group were observed to be felt sick all the time, physician advice, overweight, family members all slim. Some benefits that promoted continuance with the program were: (a) health is better now than before, (b) feel better physically, (c) increased energy level, (d) family member support, (e) husband brags about my exercise, (f) feel better mentally, (g) meeting people, (h) enjoyment, (i) improved morale, and (j) satisfaction.

In a phenomenological study conducted by Bockmon (1985) regarding "Factors Involved in Changing the Health Pattern of Exercise" differences were revealed between male and female participants. The eight participants over 18 years old were from an East Texas metropolitan area and involved in various exercise programs in the Health and Physical Education Department at a state university.

The findings revealed that females appeared to have been motivated by a desire to enhance their wellness. The females mentioned convenience and enjoyment of the exercise program more than males. For the males, enjoyment of the activity itself was not so important as enjoyment of the interaction with others in the exercise group. For the females, group support was important because of caring and concern of the members, but also because belonging to the

group involved an obligation to others. The males saw the group as a diversion from boredom of exercise. A common finding between both females and males was that group support was very important to the success of exercise pattern change (Bockmon, 1985).

Social Support and Health Promotion

Social support has to do with an assessment of the helpfulness of social relationships. If the social support is helpful, it enhances health and well-being (Bruhn & Philips, 1984). Of all the variables mentioned in the literature review, social support seems to be the most important health-promoting variable in relation to the senior citizen. "People need people in ways that health care professionals have only begun to examine" (Whittaker & Garbarino, 1983, p. 107). Whittaker and Garbarino also added that an empirical relationship exists between health and social support but the exact nature of the relationship is unclear. A review of the research suggests that social support reduces the risk of physical disorder, aids the recovery process, and provides a buffer against traumatic or stressful experiences (Whittaker & Garbarino, 1983).

According to Pender (1982), the social support system represents an enduring pattern of continuous or intermittent ties that play a significant role in

maintaining psychologic and physical integrity of the individual over time. Social support groups appear to be highly significant in the promotion of health and in assisting clients to cope with stressful life experiences. The extent to which life change threatens well-being and health may depend to a large extent on the support available from significant others (Pender, 1982).

Significant others most often, but not always, stem from family supports. Rosenthal (1986) addressed family support in later life and asked if ethnicity makes a difference. Even though Rosenthal believed there were no firm answers, guesses may be ventured. Differences in support levels are likely to be better predicted by socioeconomic rather than cultural factors, with lower socioeconomic status being associated with more instrumental assistance. The exchange of emotional support is likely to be positively related to higher socioeconomic status.

Two studies in the area of social support have been important to the field of aging: Berghorn and Schafer's (1979) finding that social supports reduced the impact of declining functional capacities on feelings of effective living, and Raphael's (1977) conclusion that many of the adverse effects associated with bereavement, such as

susceptibility to physical and mental health breakdowns, were absent for individuals who maintained close supportive relationships. "Social isolation and social disruption are cited as major etiologic factors in depression and consequent physical illnesses" (Surgeon General's Report, 1979, p. 28).

Almost one-quarter of older persons are poor. Poverty often underlies malnutrition, an important problem among older persons. Income can determine access to good housing and to transportation which can have an impact on health status as well as increase the likelihood of adverse psychosocial conditions as stress, social isolation, and alienation (Surgeon General's Report, 1979). In addition, the physical environment in which older persons live shapes much of their interaction with the world. Their home and their neighborhood can funnel them into supportive social interactions, or it can isolate them (Surgeon General's Report, 1979). In a discussion regarding different types of programs providing social support, Pilisuk and Minkler (1980) identified the satisfaction derived from working with others on a worthwhile task. This was repeatedly cited as a valued incentive for continued participation.

At least one study proposed that the socioeconomic status of social network members may be important in

determining preventive health behaviors. A survey of 383 adults suggested that individuals in networks characterized by high socioeconomic status and frequent interaction with neighbors, friends, and other non-family were more likely to use seat belts, to exercise, to maintain good nutrition, and to obtain regular medical examinations, dental care, and immunizations (Langlie, 1977).

Lin, Ensel, Simone, and Kuo (1979) studied 170 Chinese-Americans on the East coast. They reported that individuals were less likely to experience a serious illness if they had a close family member, relative, friend, co-worker, or community group that provided them social support.

Cohn and Sokolovsky (1979) studied health-seeking behavior and social networks of the aged living in single room occupancy hotels. The setting consisted of 21 single-room hotels in a sector of midtown Manhattan. The sample (96 persons) consisted of 47 males and 49 females. The mean was 72 years (range, 60 to 93). Racial distribution was 90% white, 9% black, and 1% Hispanic. Approximately one-third of the sample had varying amounts of elementary school education; one-third had gone to high school; and one-third had attended college. Respondents averaged 7.5 personal contacts. Total network size was not

significantly correlated with any measures of physical health. There was a trend toward a reduction in kin ties with increasing medical symptoms. Although results were not statistically significant, several important trends were evident. The healthiest women had the smallest overall networks (5.5 contacts). By contrast, the healthiest men had the largest networks, although the differences between categories were small.

The effect of social support on health was examined Berkman and Syme (1979). They followed approximately 5,000 residents of Alameda County in California for 9 years. Findings revealed that respondents with social ties such as marriage, family, friends, and group memberships had lower mortality rates than respondents lacking such connections. They found a positive relationship between social support and health. People who were married lived longer and were sick less than those who were single or widowed.

In a study of 280 adults of 63 years of age and older, Lowenthal and Haven (1968) investigated the impact of a confidant on morale. The positive effects of a confidant were evident in that loss of social roles and decreased social participation produced significantly less loss of morale or depression if a confidant was available. They

found good health related highly with stable, intimate relationships more than any other social factor.

In another study by Hubbard, Muhlenkamp, and Brown (1984), the researchers found in their sample of 97 volunteers who participated at a senior citizen center and 133 individuals attending a health fair in a large metropolitan area that social support was the most significant indicator and accounted for 34% of the variance in positive health practices. They also found females had higher health practice scores than did males. No significant associations attributable to education, occupation, marital status, or age were found. The generalizations presented were tentative because of the non-random nature of the two samples.

Pender (1982) devoted a chapter on social support and its significance in compliance with therapeutic regimens. "Only one of 22 articles in which social support was measured failed to substantiate the positive relationship between social support and compliance" (p. 356). The role of social support in the maintenance of individual health and well-being should be emphasized since, according to Pender, it is a new field for exploration within the social sciences.

Wilcox (1981) studied the relationship between stressful life events and social support. A group of 320 community residents completed questionnaires including two measures of support, two psychological distress scales, and a stressful life events scale. Four hypotheses tested social support as serving as a buffer between life events and psychological distress across each support measure in combination with the life events measure. All four hypotheses were supported, although the amount of variance accounted for was much greater when the support measure used tapped quality of support rather than quantity of supportive relationships.

Elder et al. (1985) conducted a multivariate evaluation of health attitudes and behaviors for development and validation of a method for health promotion research. Subjects included 164 hospital and health agency employees and adult part-time students at the University of Rhode Island College of Continuing Education. Fifty-four were male and 110 were female; 96 were under the age of 41; 93 were married, 47 had never married, and 23 were separated or divorced; 151 were white, 9 were black, and 3 were "other." The majority of respondents were young with 38.4% between 18-30. Only 3.7% were between 60-73 years of age. Two significant differences were found in that

subjects with less education reported a greater lack of social support and more negative health attitudes. This result confirms the generally accepted notions that people with more education also know more about health and are more likely to assume an active stance with regard to disease prevention. A cluster analysis revealed that individuals who have a lot of social support perceive few hurdles to health. These individuals rate their environments as quite positive. The health of such individuals is apparently enhanced through good social support.

Social support as a multifaceted concept was studied by Fiore, Coppel, Becker, and Cox (1986). Four commonly used operationalizations of the social support concept, (a) network contact frequency, (b) satisfaction with support (including nine dimensions), (c) perceived availability of support, and (d) use of support, were related to two measures of psychological adjustment (Beck's Depression Inventory and Symptom Checklist) and to one measure of physical adjustment (Cornell Medical Index). Sixty-eight subjects were between 45-85 years old, highly stressed caregivers to spouses with Alzheimer's disease. Results indicated of the four operationalizations, satisfaction with support, was the only significant predictor of

depression and general psychopathology. The set of four support variables showed the strongest relationship to depression level, next to strongest to general psychopathology, and least to physical health. No significant relationships were found between physical adjustment and any support measures when sex and gender were held constant. A direct correlation between health and network contact showed good physical health was positively related to frequency of network contact. A comparable correlation was found between socioeconomic level and physical adjustment, indicating the lower the socioeconomic level, the greater number of reported physical symptoms. This study was unclear as to what accounts for the finding that the social support measures are unrelated to physical adjustment as others have proposed.

Summary

Health promotion activities in older persons are more prevalent than most believe. Research in health promotion in older persons is not. Most studies confirmed the importance of health values except for Laffrey and Isenberg (1983) which did not. The literature review did elicit that motivation (incentive) plays a big part in health promoting activity but there were few research studies to

substantiate this. It appears from the literature and research studies that social support is a major determinant in health-promoting behavior. Social support definitely seems to have a psychological effect. Yet, social support is a complex concept. According to Fiore et al. (1986), it is an overgeneralization to contend that social support is related to adjustment or health since it is becoming clear that support and adjustment are complex constructs and a further understanding of the role of social relationships is needed.

An implication for the present research study is that the concepts need to be explored in the area of older persons. Examining the incentives to health promotion is just a start. The literature indicates this area may also be multifaceted in that there is not just one reason to participate in health promotion activities.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The nature of the study was descriptive correlational. The descriptive correlational design was selected because of the necessity to investigate health promotion behaviors in older persons as they relate to health values, incentives, and social support. Descriptive studies focus on the status of a given phenomenon (Mouly, 1978).

According to Tuckman (1972), a correlational design involves the collection of two or more sets of data from a group of subjects with the attempt to determine the subsequent relationship between sets of data. Correlational studies serve a useful purpose in determining the relationship among measures.

Setting

The setting consisted of six public housing senior citizen centers and one private retirement home in the metropolitan Oklahoma City area. The interviews of participants took place in their apartments or in a private area of the center.

Population and Sample

The population consisted of senior citizens in housing centers. Thirty well persons, 65 years of age to 90 years, who live at the center constituted the sample.

Cluster sampling was the technique used. Cluster sampling is the successive random sampling of units (Kerlinger, 1973). The Random Sample Random Numbers Option on the computer was used to select participants of each center. The numbers were applied to a list of apartment numbers of the center, then matched to tenant's names.

A sample size of 30 was obtained. Despite the advantages of using large representative samples, there are several arguments favoring research with small samples under certain conditions. Samples with an N of 10 to 30 have many practical advantages:

1. A quick, convenient sample size with which to work.
2. Samples of this size are large enough to test the null hypothesis, yet small enough to overlook weak treatment effects (Isaac & Michael, 1979).

Protection of Human Subjects

Approval of the investigation involving the use of human subjects was obtained from Texas Woman's University (Appendix D) and by the graduate school (Appendix E) before

any data were collected. Permission was granted by the Executive Director of the Oklahoma Housing Authority and Director of Senior Project. In addition, each Activity Director of the Center was notified regarding the study (see Appendix F). Letters of invitation were distributed to potential participants by the Activity Director (see Appendix G). The letter of invitation informed participants of their rights and purpose of the study.

The subjects were instructed that the study was investigating why people want to improve their health and what leads to their involvement in health promotion activities. The subjects were assured confidentiality and the right to withdraw from the study without reprisal. Confidentiality was assured by use of identification numbers rather than names. An oral description was read at the time of the interview and consent Form B was signed (see Appendix H and Appendix I). An offer to share the results of the study upon completion was extended to the subjects.

Instrument

The instrument was an interview schedule that consists of five parts: Demographics, Health Values, Lifestyle Profile, Incentives, and Social Support Systems (see Appendix J). The instrument was derived from an adaptation

of The Fomby Health/Health Promotion Value Scale (1985), Walker, Sechrist, and Pender's (1986) Health-Promoting Lifestyle Profile, and the Personal Resource Questionnaire by Brandt and Weinert (1981). The Incentive Health Promotion Scale and demographic inventory were developed by the investigator.

The Fomby Health/Health Promotion Value Scale

This scale, developed by Betty L. Fomby (1985), reflects the combination of Pender's and Veroff's frameworks. This scale was used to determine the variable Health Value. Fomby adapted it from Wallston and Wallston's (1976) Health Value Scale. The revised scale by Fomby reflects the dimension of health promotion. The scale consists of 12 values (happiness, health, health promotion, helpful, freedom, independent, mature love, responsible, self-controlled, self-respect, social recognition, and true friendship). It was developed to be a self-administered questionnaire but for this study, an adapted version was given in an interview. The interviewee is asked to rank the values from 1-12 according to importance (1 = most important to 12 = least important). Then the interviewee is asked to rate the value as to how strong feelings are about the rank selected for each value (1 = not at all, 2 = somewhat, 3 = moderately so, 4 =

very much so). In the pilot study, this section was included but for the final study, it was not included for reasons listed in the pilot section. Thus, an adapted version of Fomby's Scale (the ranking scale) was used.

Fomby (1984) reported test-retest reliability with adolescents aged 13-15 was Pearson $r = .78$ for the ranking scale and $r = .83$ for the rating scale. Content, construct, and criterion-related validity using Wallston and Wallston's Health Value Scale were established by Fomby (1984). Factor loadings from principal axis analysis for the ranking scale yielded five factors with eigenvalues greater than 1 accounting for 62.2% of the total variance. Factor 1 accounted for 16.4% of the total variance (eigenvalue = 1.96); Factor 2 accounted for 14.1% of total variance (eigenvalue = 1.70); Factor 3 accounted for 11.8% of total variance (eigenvalue = 1.41); Factor 4 accounted for 10.8% of total variance (eigenvalue = 1.29); and Factor 5 accounted for 9.1% of total variance (eigenvalue = 1.09). Principal components analysis for the rating scale yielded two factors with eigenvalues greater than 1. Factor 1 accounted for 41.9% of total variance (eigenvalue = 5.02) and Factor 2 accounted for 9.7% of total variance (eigenvalue = 1.17). Analysis using Oblimin and Varimax procedures further confirmed the two factors.

Included in the five factors extracted for the FHHPVS ranking scale using Oblimin and Varimax rotations were:

Factor 1 = helpful $-.59$, freedom $.73$; and independent $.74$.

Factor 2 = happiness $-.47$; health promotion $.69$; and true friendship $-.75$.

Factor 4 = self-controlled $.67$, and self-respect $.83$.

Factor 5 = social recognition $.88$ and self-controlled (second time) $-.45$.

Included in the two factors extracted for the FHHPV rating scale using Oblimin and Varimax rotations were;

Factor 1 = happiness $.45$; health $.66$; health promotion $.73$; helpful $.60$; responsible $.58$; self-controlled $.65$; self-respect $.75$; and true friendship $.58$.

Factor 2 = freedom $.78$; independent $.75$; mature love $.63$; and social recognition $.43$ (Fomby, 1984).

Since another age group was used, reliability was determined again.

The major weakness of the scale is that the number of rankings (12) can confuse the participant. The major strength of the scale is that it reflects the dimension of health promotion.

The Health-Promoting Lifestyle Profile

This scale, developed by Susan N. Walker, Karen R. Sechrist, and Nola J. Pender, is used to determine health-promotion behaviors. It is an instrument that conceptualizes perceptions, attitudes, and actions which serve to maintain or increase the level of wellness, self-actualization, and fulfillment of the individual. It was developed for use in testing the Health Promotion Model proposed by Pender (1982).

The original format of the tool consisted of a 107-item pool. A 4-point response format was used to ascertain the frequency of health promoting behaviors among respondents. These include Never, Sometimes, Often, and Routinely. Walker, Sechrist, and Pender administered the tool to a sample of 1,083 volunteer adults, aged 18-88 years, recruited from various midwestern community settings. Data were subjected to item analysis, reliability analysis, and factor analysis. Items with low corrected total correlations were deleted, leaving 70 items to be submitted to factor analysis. Principal axis factor analysis and oblique rotation of responses to those 70 items yielded 16 factors which would be combined into six conceptually valid subscales. Further factor analysis suggested that a 6 factor solution was most efficient and

logically consistent and that a 48-item instrument had the highest construct validity. When 48 items were factor analyzed, all items loaded on the expected factors at a level of .350 or higher. High internal consistency ($\alpha = .922$) was found. The six subscales are (a) self-actualization, (b) health responsibility, (c) exercise, (d) nutrition, (e) interpersonal support, and (f) stress management. The six subscales contain 5 to 13 items each, with alphas ranging from 0.702 to 0.904. Second order factor analysis of the correlations among the identified factors extracted a single factor measured by the instrument was health-promoting lifestyle (Walker et al., 1986).

The major weakness of this instrument is the length which may fatigue the participant. The major strength of this instrument is high alphas.

The Personal Resource Questionnaire--Part II

This scale, developed by Patricia Brandt and Clarann Weinert, was used to test social support systems. Part I of the scale was not needed for the study. Part I addresses aspects of the network structure and provides descriptive data regarding situational support. Part II is a scale developed to measure the level of perceived social support based on the work of Robert Weiss. Social support

is also related closely to the frameworks used in this study and the literature review. Pender (1982) devoted an entire chapter to social support. Veroff and Veroff (1980) described the incentive of social relatedness in the Theory of Social Goals which is basically synonymous to Pender's significance of social support.

Part II contains a 25-item Likert scale developed according to Weiss' relational dimensions and a five-item Self-Help Ideology Scale. The items are rated from strongly agree to strongly disagree. The five subscales are intimacy, social integration, nurturance, worth, and assistance/guidance.

An internal consistency reliability coefficient of 0.89 was obtained for the PRQ Part II. Other researchers (Iverson, Muhlenkamp, Weinert, and Muhlenkamp/Hubbard) have tested the tool for internal consistency. Their respective scores are .90, .85, .87, and .89. The respective mean ages for the groups were 63.6 years, 70 years, 61.2 years, and 69.5 years. The validity coefficients ranged from .30 to .44 ($p < .001$). Brandt and Weinert reported that the validity coefficients obtained indicate stronger predictive validity for Part II than Part I.

A major weakness of this scale is the repetition of some of the items. A major strength of this scale is the

strong internal consistency scores for the older age group which is the age range for the present study.

The Incentive-Health Promotion Scale

This scale was developed by the investigator from a combination of the two frameworks used for this study and a concept analysis of incentive by the investigator. The scale was developed because of the lack of a specific scale to determine why persons participate in health promotion behaviors. From the concept analysis, the critical attributes of incentive include the following:

1. There is an internal or external valued object or event.
2. These objects or events produce arousal.
3. Goal-directed behavior or action occurs.

Locke, Bryan, and Kendall (1968) provide attributes very similar to the above. They describe the following as incentive:

Before an external object can affect an individual's actions, he must (ordinarily) perceive and identify it, that is, he must be aware that it exists and of what it is; then appraisal of the object against some standard of value, or an estimate of the extent to which the object will be beneficial or harmful to him. As a result of this appraisal (which may be subconscious), he may experience an emotion. . . . Then the individual will usually set himself a goal or end toward which he will direct his behavior and in terms of which its appropriateness will be judged. He will develop an incentive to act in a certain way.
(p. 106)

A qualitative study on Incentive was also conducted by the investigator. Unstructured interviews were conducted with seven selected health care administrators to ascertain what incentive means to them. A convenience sample was used. The qualitative data collected support the validation of the critical attributes. In addition, the results supported parts of Veroff and Veroff's theory of social goals:

Each item was developed as stated below:

Item One--derived from concept analysis of incentive by the investigator. It reflects an internal/external valued object.

Item Two--derived from concept analysis. It reflects an internal/external valued object.

Item Three--derived from Pender's Model.

Item Four--derived from Veroff and Veroff's Social Relatedness Stage.

Item Five--derived from Pender's Model.

Item Six --derived from Veroff and Veroff's Interdependence Stage.

Item Seven--derived from Veroff and Veroff's Curiosity Stage.

Item Eight--derived from concept analysis. It reflects the attribute of an internal or external valued object or event.

Item Nine--derived from Veroff and Veroff's Belongingness Stage.

The nine items are rated by the interviewee on a 6-point Likert scale with the selection that best reflects the person's feeling about the statement. The selections are: strongly disagree, disagree, somewhat disagree, somewhat agree, agree, and strongly agree. The items attempt to address the incentives (phrased reasons) why the interviewee participates in health promotion activities. For example: one item (8) states, "I participate in health promotion activities because they make me feel good."

Reliability of the scale was established by test-retest using the McNemar nonparametric statistical test. No significant differences were shown on the test and retest. Spearman-Brown indicated in the pretest a true reliability coefficient of 0.74816, significant at .05 level. Guttman split-half indicated in the posttest a true reliability coefficient was 0.85981, significant at .05 level.

Reliability using Cronbach coefficient alpha revealed an alpha reliability coefficient of 0.90316. More detailed explanation is given in the pilot section.

Content validity was checked by a panel of experts reviewing the entire questionnaire with focus on the incentive section. The panel of experts included a nursing research director at the University of Oklahoma College of Nursing, a professor at the University of Oklahoma College of Public Health's Social Sciences and health Behavior Department whose focus is health promotion, a gerontological nurse practitioner, and two professors in the graduate nursing program at the University of Oklahoma whose interests are in gerontology. See Appendix K for description of experts and letter of request. They reviewed the questionnaire for content, item responses, and clarity. The scale was then revised, taking into account their suggestions. Construct validity was tested using factor analysis. The pilot section discusses the analysis.

There are no incentive scales related to health promotion. The literature includes a number of scales that was developed to measure motivation related to education or management. Requests for and subsequent permissions to use the works of various researchers are shown in Appendix L.

The demographic data inventory was developed by the investigator and the questions covered evolved from the literature review and Pender's (1982) framework. These independent variables were correlated with health promotion behaviors to determine relationships.

Pilot Study

A pilot study was conducted to field test the procedure, the instrument, and to establish reliability and validity of Incentive-Health Promotion Scale. The interview process was examined to decide if this was the best method to collect data. The instrument was previewed and taken by a group of five other doctoral nursing students and suggestions on improvement were given. The suggestion to administer the tool as a questionnaire rather than an interview process was tested.

The Activity Director at a senior center in Oklahoma City was contacted to gain permission for the study. After permission was granted, the investigator acquired a list of the residents and selected every other resident according to the floor on which they lived. Letters of invitation were slipped under the doors of the residents selected. The investigator then called the residents to whom the letters were sent and asked to interview them. An appointment was set up with those persons who agreed to

participate. Five interviews were conducted. The interviews lasted approximately 45 minutes to 1 hour. The interviews went smoothly except for some difficulty encountered with the rating section of the Health Value Scale. Interviewees did not understand this section even after an attempt to explain it. Minor difficulty was encountered during the remaining interview process. Only a few times did the investigator have to repeat the instructions or statements. At times, interviewees began to answer yes or no and they were reminded to answer according to the response cards displayed. All responses were written on large construction paper so the interviewee could remember the responses. The visual aids helped immensely.

The Incentive-Health Promotion Scale, developed by the investigator, was sent to 35 residents of the center to test for reliability and validity. Names were selected non-randomly and letters of invitation were slipped under the doors. A phone call was made to the resident to ask if the resident would answer this portion of the instrument. A stamped self-addressed envelope was placed with the questionnaire if the resident agreed to respond (see Appendix M). The residents were also instructed at this time that they would be sent another questionnaire in about

2 weeks. Thirty-one residents returned both questionnaires. The data collected were subjected to statistical analysis.

Five methods of statistical analysis were used in the pilot study:

1. The application of descriptive statistics to the Incentive-Health Promotion Scale included the frequency of responses and percentages for items on the scale. Table 1 presents scores on the test and re-test. Table 2 gives the mean, standard deviation, and variance of the sample responses.

The data in Table 1 indicate most items were answered in the upper part of the Likert Scale. There were zero responses in item A (1, 2, 3, columns) test and re-test and items B (1, 2, 3) initial test. Item H also indicates no responses in 1, 2, 3 columns.

2. Application of test-retest method in both phases, analyzing the difference between test scores at two test periods through the McNemar non-parametric statistical test.

The McNemar test is useful for detecting whether a change has occurred between a set of "before and after" type measurements. The McNemar tests for significance of changes in which each person is used as his own control and

Table 1

Frequency of Responses and Percentage for Items on Incentive-Health
Promotion Scales

Question	Test			Retest		
	Frequency		Percent	Frequency		Percent
Fitness and health	1	--	--	1	--	--
	2	--	--	2	--	--
	3	--	--	3	--	--
	4	2	6.5	4	1	3.2
	5	9	29.0	5	13	41.9
	6	20	64.5	6	17	54.8
Appearance	1	--	--	1	--	--
	2	--	--	2	3	9.7
	3	--	--	3	--	--
	4	8	25.8	4	5	16.1
	5	11	35.5	5	14	45.2
	6	12	38.7	6	9	29.0
Medical advice	1	--	--	1	1	3.2
	2	2	6.5	2	2	6.5
	3	1	3.2	3	1	3.2
	4	5	16.1	4	3	9.7
	5	9	29.0	5	13	41.9
	6	14	45.2	6	11	35.5

(table continues)

Question	Test			Retest		
	Frequency		Percent	Frequency		Percent
Socialize	1	1	3.2	1	1	3.2
	2	4	12.9	2	4	12.9
	3	2	6.5	3	2	6.5
	4	6	19.4	4	5	16.1
	5	9	29.0	5	12	38.7
Pressure	1	7	22.6	1	4	12.9
	2	13	41.9	2	17	54.8
	3	4	12.9	3	6	19.4
	4	4	19.4	4	2	6.5
	5	1	3.2	5	1	3.2
	6	--	--	6	1	3.2
Independent	1	1	3.2	1	1	3.2
	2	1	3.2	2	2	6.5
	3	1	3.2	3	1	3.2
	4	4	12.9	4	3	9.7
	5	7	22.6	5	12	38.7
	6	17	54.8	6	12	38.7
Fun	1	--	--	1	--	--
	2	2	6.5	2	2	6.5
	3	--	--	3	1	3.2
	4	7	22.6	4	5	16.1
	5	7	22.6	5	11	35.5
	6	15	48.4	6	12	38.7

(table continues)

Question	Test			Retest		
	Frequency		Percent	Frequency		Percent
Feel good	1	--	--	1	--	--
	2	--	--	2	--	--
	3	--	--	3	--	--
	4	3	9.7	4	1	3.2
	5	15	48.4	5	22	71.0
	6	13	41.9	6	8	25.8
Belong	1	1	3.2	1	2	6.5
	2	2	6.5	2	3	9.7
	3	3	9.7	3	2	6.5
	4	3	22.6	4	8	25.8
	5	8	25.8	5	10	32.3
	6	10	32.3	6	6	19.4

N = 31.

Table 2

Mean and Standard Deviation for Each Item on Incentive-HealthPromotion Scale

Item	Description	Mean	Standard deviation
Test			
A	Fitness and health	5.60	.62
B	Appearance	5.16	.79
C	Medical advice	4.93	1.48
D	Socialize	4.50	1.47
E	Pressure	2.40	1.16
F	Independent	5.16	1.28
G	Fun	5.10	1.15
H	Feel good	5.33	.66
I	Belong	4.63	1.37

Retest			
A ₂	Fitness	5.53	.57
B ₂	Appearance	4.83	1.17
C ₂	Medical advice	4.90	1.32
D ₂	Socialize	4.46	1.43
E ₂	Pressure	2.50	1.10
F ₂	Independent	4.93	1.33
G ₂	Fun	5.03	1.09
H ₂	Feel good	5.23	.50
I ₂	Belong	4.36	1.35

N = 31.

in which measurement is in the strength of either a nominal or ordinal scale (Siegel, 1956).

The McNemar test for related samples was indicated for the data collected since the responses are not interval data and the responses are not normally distributed. The data were not normally distributed because the data were weighted to the 4, 5, 6 columns of the Likert Scale. For this reason, the responses were grouped differently. The first grouping of McNemar one used all data. Columns were grouped on the continuum (1, 2, 3, 4, 5, 6). Table 3 shows the p value and chi-square value. The second grouping was used with only 4, 5, 6. Since Item E responses were on the lower end of the scale, it was grouped differently as shown at the bottom on Table 3.

The McNemar test was significant at the .05 level. According to the results, the McNemar indicated no significance and, thus, the test-retest shows no major differences.

3. Application of the unequal-length Spearman-Brown to the prephase. The results were 0.994622. Results indicated in prephase a true reliability coefficient of 0.74816, significant at the .05 level. Spearman-Brown tests the internal consistency of a test (Kerlinger, 1973).

Table 3

Test-Retest Using McNemar Nonparametric Statistic for Incentive-Health
Promotion Scale

	McNemar Test (using all data) continuum (1,2,3,4), 5,6		McNemar Retest (using only selected items 4, 5, 6)	
	chi-square	p-value	chi-square	p-value
A. Fitness & health	1.60	.45	1.60	.45
B. Appearance	3.14	.37	3.14	.21
C. Medical advice	3.00	.22	4.67	.10
D. Socialize	2.80	.42	2.80	.42
E. Pressure	2.67	.44	1.33	.51
F. Independent	3.57	.17	3.90	.14
G. Fun	2.13	.34	2.13	.34

(table continues)

	McNemar Test (using all data) continuum (1,2,3,4), 5,6		McNemar Retest (using only selected items 4, 5, 6)	
	chi-square	p-value	chi-square	p-value
H. Feel good	5.57	.06	5.57	.06
I. Belong	4.20	.24	4.33	.23

Question E (using all data) continuum 1,2, (3,4,5,6).

Question E (using only 1,2,3).

N = 31.

Application of the Guttman split-half for the post phase was 0.93954. Results indicated for the post phase a true reliability coefficient was 0.85981, significant at the .05 level. The Guttman scale tests the relation between items and total scores (Kerlinger, 1973). Table 4 shows the alpha if item deleted.

4. Application of the Cronbach coefficient alpha to analyze the internal commonalities and consistency of test items. Item-test correlations and certain reliability formulas describe internal consistency. High internal consistency may lower validity. Only if the underlying theory of the trait being measured calls for high item intercorrelations do the correlations support construct validity (Cronbach & Meehl, 1955). The results revealed an alpha reliability coefficient of 0.90316 indicating test items to be highly related and consistent. Table 5 shows the alpha if item deleted.

5. Application of factor analysis on the Incentive-Health Promotion. Factor analysis analyzes the interrelationships among a set of test items. Factor analysis searches for the fundamental constructs or dimensions assumed to underlie the original variables and group variables into subscales (Hair, Andeson, Tatham, & Grablowsky, 1979).

Table 4

Reliability Coefficients for Guttman Split-HalfTest and Spearman Brown Test

Item	Description	Alpha if item deleted
Test		
A	Fitness and health	.90404
B	Appearance	.90429
C	Medical advice	.89886
D	Socialize	.88686
E	Pressure	.90793
F	Independent	.90198
G	Fun	.09128
H	Feel good	.90126
I	Belong	.88924
Retest		
A ₂	Fitness and health	.90418
B ₂	Appearance	.89321
C ₂	Medical advice	.89310
D ₂	Socialize	.88512
E ₂	Pressure	.89936
F ₂	Independent	.89607
G ₂	Fun	.89967
H ₂	Feel good	.90502
I ₂	Belong	.88552

Alpha for part 1 = .74816, Guttman split-half.

Alpha for part 2 = .85981, Spearman Brown.

N = 31.

Table 5

Cronbach Reliability Coefficients

Item	Description	Alpha if item deleted
A	Fitness and health	.90404
B	Appearance	.90429
C	Medical advice	.89886
D	Socialize	.88986
E	Pressure	.90793
F	Independent	.90198
G	Fun	.90128
H	Feel good	.90126
I	Belong	.88924
A ₂	Fitness and health	.90418
B ₂	Appearance	.89321
C ₂	Medical advice	.89321
D ₂	Socialize	.89310
E ₂	Pressure	.88512
F ₂	Independent	.89936
G ₂	Fun	.89607
H ₂	Feel good	.90502
I ₂	Belong	.88552

N = 31.

Alpha = 0.90316.

The factor methods were principal components and principal axis factors. The rotation method was varimax in an orthogonal transformation matrix. Table 6 shows commonality estimates for factor one and two, the variance and eigenvalues.

Those items which loaded at $\pm .40$ and better on Factor one are C, D, G, U, B2, C2, D2, G2, I2. Those items which loaded at $.40$ and better on Factor two are A, C, G, H, A2, H2. This indicates that these items are significantly similar or related on the first and second rotation. The results show that very few items are below $\pm .40$ which means the instrument's items are correlated and cluster together. The instrument appears to measure the same dimension.

Only two factors were selected since the number of variables is less than 20. There is a tendency for the method to extract a conservative number of factors (Hair et al., 1979).

The Incentive-Health Promotion Scale demonstrated evidence of reliability and validity for this sample. The incentive-health promotion scores tended to cluster around a similar rating producing a correlation that was significant, therefore indicating construct validity. Reliability was established by Cronbach's coefficient alpha

Table 6

Factor Analysis of Incentive-Health Promotion Scale by Item or ItemsComposing Subsets of Incentives of Health Promotion

Item	Description	Communality estimate	Factor one	Factor two
A	Fitness and health	0.751270	0.05012	0.83407
B	Appearance	0.890757	0.22774	0.15577
C	Medical advice	0.612430	0.64069	0.04092
D	Socialization	0.842843	0.76894	0.12419
E	Pressure from others	0.833385	0.05956	-0.10005
F	Independence	0.755185	0.26919	0.01331
G	Fun	0.849216	0.54875	0.49708
H	Feel good	0.773553	0.18487	0.82977
I	Belongingness	0.845850	0.85156	-0.01933
A ₂	Fitness and health	0.709198	0.22553	0.57120
B ₂	Appearance	0.654956	0.74947	0.15648
C ₂	Medical advice	0.727390	0.78628	-0.5094
D ₂	Socialization	0.928893	0.81365	0.08079
E ₂	Pressure from others	0.652360	0.35191	0.08462
F ₂	Independence	0.905703	0.36353	0.20704
G ₂	Fun	0.752462	0.68945	0.37079
H ₂	Feel good	0.850283	0.03413	0.80909
I ₂	Belongingness	0.892287	0.81816	0.16962

Variance: Factor one = 5.487315; Factor two = 3.076278.

Eigenvalues: Factor one = 7.215345; Factor two = 2.781726.

N = 31.

and split-half. Based on the results of the instrument development, the following conclusions can be made: (a) construct validity testing needs to be replicated with a larger and more diverse population, (b) methodology for data collection needs to be centered around a randomized sample to allow for verification of reliability, construct validity, and generalizability of research findings.

For the final study, the changes made were minor. An interview was done since the researcher feels this tool is much too involved to be sent as a questionnaire. Despite phone calls and using just a two-page section of the tool, residents' response rate was low for the initial invitation. The letter of invitation was shortened and simplified. Other facets of the methodology remained the same since the contact made by telephone call and the structured interview went well.

The instrument revision was also minor. Changes that were made involved deleting height, weight, place of residence, and income. The second part of the Fomby Health/Health Promotion Value Scale was eliminated since this section confused the participants.

Data Collection

After permission was granted by the Oklahoma Housing Authority and Director of Senior Project, the Activity

Directors were contacted. Letters of invitation to randomly selected participants were given to the directors for distribution. Appointments to be interviewed were arranged by the Activity Director or the investigator at a time convenient for the participant. Data were collected from October 31, 1986 to December 19, 1986.

The investigator conducted the interviews. In addition to the interview schedule, visual aids were used. The interview is frequently the method of choice, because it allows the opportunity to identify misinterpretation, clarify communication, and identify inconsistency. It is uniquely suited for gathering information from those unable to read or complete written documents. Such populations include young children, the very ill, the elderly, the blind, and the illiterate (Waltz, Lenz, & Strickland, 1984). The interview usually yields a high percentage of returns, for most people are willing to cooperate. Visual material which the informant is to read can be presented (Miller, 1970). Consultation with two experts in gerontology--a nurse gerontologist practitioner and a director of an area-wide aging agency--resulted in agreement that an interview would yield a more favorable response. In addition, due to the length and complexity of

the questionnaire, the investigator decided that the interview would be best.

Treatment of Data

Data were processed by the Eclipse M/600 computer and were analyzed descriptively and inferentially on all participants across all variables. Characteristics of the sample are described in frequency distributions and percentages as they pertain to the demographic data sheet.

The dependent variable under study was health promotion behaviors. The dependent variable was measured by the Health Promoting Lifestyle Profile Instrument.

The independent variables under study were health values, incentives, and social support. These were measured by separate tools. Demographic data of age, gender, race, marital status, living arrangements, and education are also independent variables which were not manipulated through experimentation.

Correlation was employed to test the hypotheses.

1. There is a significant relationship between health values and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory. The inventory produces ordinal level data. The Spearman rank order was applied to the health value scores. According to Vockell (1983), if one or both

of the variables are rank ordered, Spearman correlation should be used.

2. There is a significant relationship between incentives and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory. The Pearson product-moment coefficient of correlation (r) was the appropriate statistic.

3. There is a significant relationship between social support and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory. The Pearson product-moment coefficient of correlation (r) was the appropriate statistic.

4. There is a significant relationship across all selected independent variables from the demographic inventory and health promotion behaviors in the well-elderly at a senior citizen center as measured by the Health and Lifestyle Inventory. The Pearson product-moment coefficient or correlation matrix was the appropriate statistic. The correlation matrix usually presents intercorrelations of variables.

Hypotheses Two, Three, and Four tested quantitative measurements at the interval level and the hypotheses were

concerned with describing the degree of relationship between variables (Waltz et al., 1984).

Friedman H was applied to the Health Values. Cronbach coefficient alpha was applied to the Health Values, Incentives, and Lifestyle Profile Sections of the Interview Schedule to analyze the internal consistency of the scales for the age group under study.

The subscales (self-actualization, health responsibility, exercise, nutrition, interpersonal support, and stress management) of the Lifestyle Profile were analyzed using the Pearson product-moment coefficient of correlation to the total score of the instrument.

CHAPTER IV

ANALYSIS OF DATA

This chapter contains a presentation and analysis of data obtained from the relationships which were studied and tested in this research investigation. The data, which were interpreted through statistical procedures, are presented in tables throughout the chapter and in the appendix.

A description of the sample and findings are included. The results and interpretations of the data analysis are organized according to the four hypotheses tested in the study.

Description of the Sample

The sample of 30 senior citizens was selected from six public housing senior citizen centers and one private retirement home in metropolitan Oklahoma City. The random sample was selected using the Random Sample Random Numbers Option on the computer. The numbers were then applied to a list of apartment numbers and tenant names.

Analysis of the demographic data revealed the following characteristics of the sample:

1. 86.7% of the sample were female and 4% were male.

2. 26.6% of the sample were between the ages of 65-69 years; 26.7% of the sample were between the ages of 70-74 years; 16.7% of the sample were between the ages of 75-79 years; 6.6% of the sample were between the ages of 80-84 years, and 23.3% of the sample were between the ages of 85-90 years.

3. 90% of the sample were white and 10% were black.

4. 80% of the sample were widowed, 16.7% were divorced, and 3.3% had never married.

5. 100% of the sample lived alone.

6. 13.3% of the sample had some grade school, 13.3% completed grade school, 23.3% had some high school, 23.3% completed high school, 16.7% had some college, 6.7% completed college, 0% had some graduate study, and 3.3% completed a graduate degree.

Table 7 presents the characteristics of participants. The average age of the sample was 75 years old.

Income was not collected in the data gathering stage. The sample as a whole probably fell into a lower middle class income bracket. Six of the housing centers were public housing under the jurisdiction of Oklahoma Housing Authority. The maximum income allowed per year for a person to qualify to live in public housing is \$18,150. The majority of tenants was on fixed incomes that are much

Table 7

Characteristics -- -----

<u>Gender</u>	
Male	4
Female	<u>26</u>
	30
 <u>Marital Status</u>	
Widowed	24
Divorced	5
Never been married	<u>1</u>
	30
 <u>Age</u>	
65-69	8
70-74	8
75-79	5
80-84	2
85-90	<u>7</u>
	30
 <u>Living Arrangements</u>	
Live alone	30
 <u>Education</u>	
Some grade school	4
Completed grade school	4
Some high school	7
Completed high school	7
Some college	5
Completed college	2
Some graduate study	0
Graduate degree	<u>1</u>
	30
 <u>Race</u>	
White	27
Black	<u>3</u>
	30

N = 30.

lower than \$18,150. Many earn \$400 to \$500 per month. Members of the one private retirement community probably averaged a higher income per month. The Activity Director of the private retirement center believed most were middle class and paid a rent of \$600 per month to live at the retirement home.

Findings

The following findings are organized according to the research hypotheses. Tables are included in each hypothesis section and in the appendix. Reliability coefficients for the instruments are reported.

Hypothesis 1

There is a significant relationship between health values as measured by the Fomby Health/Health Promotion Value Scale (1985) and health promotion behaviors as measured by Health-Promoting Lifestyle Profile (Walker et al., 1986) in the well-elderly at a senior citizen center.

The data in Appendix N report frequencies of responses and percentages for health values. The values ranked in the top four of most importance or high priority are happiness (60% of the sample), helpful (53.3% of the sample), independent (40% of the sample), responsible and true friendship (both reporting 40% of the sample). The

values ranked next in importance or medium priority are self-respect (36.7% of the sample), health (33.5% of the sample), health promotion (30% of the sample), and freedom (26.7% of the sample). The values ranked last in importance or low priority are self-controlled (20% of the sample), mature love (13.3% of the sample), and social recognition (6.6% of the sample). The sample regarded health and health promotion as moderate in priority.

Table 8 presents the mean, standard deviation, and median for the health value. Spearman rank order correlation was applied to the data and the correlation coefficients are shown in Table 9.

Table 9 indicates the health values that are significantly correlated with health promotion behaviors are mature love and true friendship. Mature love was negatively correlated.

Based on the data, Hypothesis 1, there is a significant relationship between health values and health promotion behaviors, was accepted for mature love and true friendship, but was not accepted for happiness, health, health promotion, helpful, independent, responsible, self-controlled, self-respect, and social recognition.

An analysis of variance using Friedman H was applied to the ranking data to check reliability. Table 10

Table 8

Means, Standard Deviation, and Median for Health Values

Health Value	Mean	Standard deviation	Median
Happiness	4.77	3.01	4.00
Health	6.67	3.88	7.00
Health promotion	7.00	3.10	8.00
Helpful	5.10	3.23	4.00
Freedom	7.23	3.54	7.00
Independent	6.13	3.41	6.00
Mature love	8.63	3.35	9.00
Responsible	5.77	3.09	5.00
Self-controlled	6.83	3.11	6.00
Self-respect	5.83	3.40	5.50
Social recognition	8.87	2.96	9.50
True friendship	5.47	2.97	5.50

N = 30.

Table 9

Spearman Correlation Coefficients for Health Values and Health Promotion Behaviors (Lifestyle Profile)

Health Value	Spearman coefficient	p value
Happiness	0.04800	0.8012
Health	-0.17061	0.3674
Health promotion	-0.01760	0.9265
Helpful	-0.04739	0.8036
Freedom	0.34626	0.0609
Independent	-0.19482	0.3022
Mature love*	-0.36194	0.0494
Responsible	0.02278	0.9049
Self-controlled	-0.03451	0.8563
Self-respect	-0.17924	0.3433
Social recognition	0.28791	0.40437
True friendship*	0.40437	0.0267

N = 30.

* Significant health values.

Table 10

Analysis of Variance: Friedman Test for Health Values Scale

Source of variation	Sum of squares	<u>df</u>	Mean square	Chi-square	Prob.
Between people	9.08	29	.0000		
Within people	429.0	330	13.0		
Between measures	580.73	11	52.79	44.6718	0.001
Residual	3709.27	319	11.63		
Total	4290.0	359	11.94		

Grand mean = 6.50.

Coefficient of concordance \underline{W} = 0.1354.

presents the results. The chi-square value (44.6718) is significant ($p < .001$). The significant chi-square indicates differences between items ranked. If these differences are not significant, there may be something wrong with the raters and/or the rating system (Kerlinger, 1973). The coefficient of concordance W is 0.1354. The low W indicates poor agreement between people in how the items were ranked. If there was no association whatever between two of the rater groups, and a rank-order coefficient of correlation was computed between the ranks, it should be near zero. On the other hand, if there is agreement, the W should be significantly different from zero (Kerlinger, 1973).

Hypothesis 2

There is a significant relationship between incentives as measured by the Incentive-Health Promotion Scale and health promotion behaviors as measured by the Health Promoting Lifestyle Profile (Walker et al., 1986) in the well-elderly at a senior citizen center.

Table 11 presents the breakdown of nine incentives and frequency responses by the participants. The total possible individual score on the scale is 54. Mean for the group was 42.6 which reflects that the group indicated better than average response for the incentives given. The

Table 11

Incentive-Health Promotion Scale Breakdown of Frequency Responses for
Each Incentive (N = 30)

Incentive	Frequency Response						* Sum of IV to VI
	I	II	III	IV	V	VI	
1. Fitness and Health	0	2	0	3	18	7	28
2. Appearance	1	3	0	2	18	6	26
3. Medical Advice	0	6	0	3	11	10	24
4. Socialize	0	3	0	5	15	7	27
5. Pressure	0	2	2	1	14	11	26
6. Independent	0	4	1	2	18	5	25
7. Fun	1	5	0	2	18	4	24
8. Feel good	0	1	0	1	22	6	29
9. Belong	0	4	1	6	16	3	25

Total Sum = 1278; Mean = 42.6.

* The Roman numerals above are the responses from I (strongly disagree) to VI (strongly agree) as indicated in the Incentive-Health Promotion Scale.

total possible group score for the scale is 1620. The group score was 1278 indicating a better than average response to participate in health promotion behaviors for the reasons given.

Breakdown of responses 4 through 6 revealed that the group agreed (29 out of $\underline{N} = 30$) that participation in health promotion activities made them feel good. The next most favored response was fitness and health (28 out of $\underline{N} = 30$). The third most favored response was to socialize (27 out of $\underline{N} = 30$). The fourth most favored responses were appearance and pressure from others (26 out of $\underline{N} = 30$). The fifth favored responses were independence and belongingness (25 out of $\underline{N} = 30$). The least favored responses were medical advice and fun (24 out of $\underline{N} = 30$).

Pearson Product-moment correlation (\underline{r}) showed correlations between incentives and health promotion behaviors with a moderate positive relationship ($\underline{r} = 0.54298$, $p < .0019$). Borg and Gall (1971) proposed correlations ranging from .35 to .65 showing a moderate relationship. Table 12 shows mean, standard deviation, and sum of incentives and health promotion behaviors (lifestyle profile).

Table 12

Mean, Standard Deviation, and Sum of Incentives and Health Promotion
Behaviors (Lifestyle Profile)

	Mean	Std. deviation	Sum
Incentives	42.6	5.59	1278
Lifestyle profile	120.73	20.42	3622

Pearson $r = 0.54298$.

Significance = 0.0019.

Based on these data, Hypothesis 2, there is a significant relationship between incentives and health promotion behaviors, was accepted.

Cronbach Coefficient Alpha was used to analyze the internal consistency of the Incentive-Health Promotion Scale. The reliability coefficient was 0.6671 indicating a moderate degree of internal consistency for the sample and homogeneity of test items on the Incentive-Health Promotion Scale.

Hypothesis 3

There is a significant relationship between social support as measured by the Personal Resource Questionnaire-Part II (Brandt & Weinert, 1981) and health promotion behaviors as measured by Health-Promoting Lifestyle Profile (Walker et al., 1986).

Table 13 presents the breakdown of the 25 items of the Personal Resource Questionnaire - Part II and frequency responses by the participants. The total possible individual score on the scale is 175. The mean for the group was 128.53 which reflects that the group individuals demonstrated above average in social support. The total possible group score for the scale is 5250. The group score was 3856 (better than half) indicating the group above average in social support.

Table 13

Personal Resource Questionnaire Part II Breakdown
of Frequency Responses (N = 30)

Personal Resource Quest.	I*	II	III	IV	V	VI	VII
1.	1	1	0	1	2	18	7
2.	1	7	0	3	5	11	3
3.	0	1	0	1	5	17	6
4.	1	13	1	4	1	8	2
5.	0	4	0	1	5	15	5
6.	0	2	0	0	3	17	5
7.	2	12	1	1	0	10	4
8.	0	0	0	2	5	22	1
9.	0	1	3	0	4	16	6
10.	1	10	4	2	0	11	2
11.	0	0	0	0	3	21	6
12.	2	2	0	0	7	18	1
13.	0	5	1	3	3	14	4
14.	0	1	0	1	1	21	6
15.	1	3	0	2	2	20	2
16.	0	10	2	1	0	12	5
17.	0	3	0	0	0	22	5
18.	0	0	0	3	5	20	2
19.	0	0	0	0	3	22	5
20.	0	2	0	1	1	25	1
21.	2	15	1	1	4	7	0
22.	0	3	0	1	4	16	6
23.	2	8	1	1	2	15	1
24.	0	12	5	5	1	7	0
25.	1	0	0	0	1	23	5

Total sum = 3856; Mean = 128.53

* The Roman numerals above are the responses from I (strongly disagree) to VII (strongly agree) as indicated on the Personal Resource Questionnaire.

Pearson Product-moment Correlation (r) showed correlations between social support and health promotion behaviors with a moderate positive relationship ($r = 0.63743$, $p < .0001$). Borg and Gall (1971) proposed correlations ranging from .35 to .65 show a moderate relationship. Table 14 shows the mean, standard deviation, and sum of social support (Personal Resource Questionnaire) and health promotion behaviors (Lifestyle Profile).

Based on these data, Hypothesis 3, there is a significant relationship between social support and health promotion behaviors, was accepted. Cronbach Coefficient Alpha was used to analyze the internal consistency of the Personal Resource Questionnaire -- Part II (Brandt & Weinert, 1981). The reliability coefficient was .8277 indicating a high degree of internal consistency and homogeneity of test items on the Personal Resource Questionnaire - Part II.

Hypothesis 4

There is a significant relationship across all selected independent variables from the demographic inventory and health promotion behaviors as measured by the Health-Promoting Lifestyle Profile (Walker et al., 1986) in the well-elderly at a senior citizen center.

Table 14

Mean, Standard Deviation, and Sum of Social Support (Personal Resource Questionnaire) and Health Promotion Behaviors (Lifestyle Profile)

	Mean	Std. deviation	Sum
Personal resource	128.53	16.55	3856
Lifestyle profile	120.73	20.42	3622

Pearson's $r = 0.63743$

Significance = 0.0001.

Table 15 presents a breakdown of the 48 items on the Health-Promoting Lifestyle Profile and frequency responses by the participants. The total possible individual score on the scale is 192. Mean for the group was 120.73 which reflects group individuals' rate above average in health promotion behaviors. The total possible group score for the scale is 5760. The group score was 3622, indicating the group demonstrated above average in health promotion behaviors.

Point Biserial correlation was applied to the Health-Promoting Lifestyle Profile and gender, age, race, marital status, living arrangements, and education. These relationships do not show significance, perhaps due to the homogeneity of the group. There appears to be no correlation between demographics and the way the group responded on the Lifestyle Profile as shown in a correlation matrix in Table 16.

Based on these data, Hypothesis 4, there is a significant relationship across all independent variables and health promotion behaviors, was not accepted.

The Health-Promoting Lifestyle Profile has six subscales which are described in Parts A-F in Table 17. This table shows the total actual response and percentages for each subscale.

Table 15

Health-Promoting Lifestyle Profile Breakdown
of Frequency Responses

Lifestyle Profile	I (never)	II (sometime)	III (often)	IV (routinely)
1.	1	4	2	23
2	3	12	8	7
3	0	14	5	11
4	11	7	4	8
5	5	19	5	1
6	2	2	10	16
7	9	14	5	2
8	4	5	8	13
9	6	10	9	5
10	7	17	5	1
11	5	10	12	3
12	2	5	11	12
13	15	5	2	8
14	6	5	3	16
15	11	9	8	2
16	2	8	9	11
17	14	9	6	1
18	0	8	20	2
19	9	9	6	6
20	15	8	4	3
21	3	8	10	9
22	14	2	5	9
23	2	5	11	12
24	6	7	10	7
25	3	4	15	8
26	2	7	9	12

Lifestyle Profile	I (never)	II (sometime)	III (often)	IV (routinely)
27	5	6	6	13
28	5	13	6	6
29	1	9	14	6
30	21	6	1	2
31	1	12	11	6
32	1	8	10	11
33	19	9	2	0
34	1	9	11	9
35	8	9	9	4
36	12	10	4	4
37	1	6	8	15
38	3	12	9	6
39	1	10	14	5
40	2	14	10	4
41	3	16	8	3
42	9	7	11	3
43	8	6	13	3
44	7	11	10	2
45	13	10	5	2
46	15	9	6	0
47	5	5	18	2
48	6	4	10	10

N = 30.

Total Sum = 3623; Mean = 120.73.

Subscales Total Scores = A - 652 (health & responsibility)
 B - 1085 (self-actualization)
 C - 323 (exercise)
 D - 487 (nutrition)
 E - 552 (interpersonal support)
 F - 523 (stress management)

Table 16

Point Biserial Correlation Coefficients for Demographic
Variables and Health Promotion Behaviors
(Lifestyle Profile)

Lifestyle Profile Correlation Coefficients

Gender	0.22429
Age	-0.18973
Race	-0.06877
Marital status	0.06877
Living arrangements	0.00
Education	0.26015

Significance

Gender	0.2334
Age	0.3153
Race	0.0502
Marital status	0.7180
Living arrangements	1.00
Education	0.1650

N = 30.

The data in Table 17 in the appendix explains percentage of each subscale out of total actual response, i.e., health and responsibility (18%). The sample appears to score higher in self-actualization (29.6%) and lowest in exercise (8.92%).

Table 18 shows the total possible score for each subscale and percentage for the sample of 30. The data in Table 18 explain what percentage of the sample out of total possible response was attributed to health and responsibility (54%). The sample appears to demonstrate highest in self-actualization (70%) and lowest in exercise (53.8%).

The Pearson correlation was applied to the total scale and each part. Table 19 presents the mean, standard deviation, and sums of the subscales. Table 20 shows the subscales and Pearson correlations. Each subscale is significantly correlated with the total scale.

Cronbach Coefficient alpha was applied to the Health-Promoting Lifestyle Profile to analyze the internal consistency of test items for the sample. The reliability coefficient was 0.9138 indicating a high degree of internal consistency and homogeneity of test items of the Lifestyle Profile.

Table 17

Total Actual Response and Percentage of Each Subscale Out of Total
Actual Response

Subscale	Actual Response	Percentage
A. Health and responsibility	652	652/3622 or 18.06%
B. Self-actualization	1085	1085/3622 or 29.96%
C. Exercise	323	323/3622 or 8.92%
D. Nutrition	487	487/3622 or 13.44%
E. Interpersonal Support	552	552/3622 or 15.42%
F. Stress management	<u>523</u>	523/3622 or 14.40%
	3622	

N = 30.

Table 18

Total Possible Response and Percentage for Sample

Subscale	Total possible	Percentage
A. Health and responsibility	1200	652/1200 or 54.0%
B. Self-actualization	1560	1085/1560 or 70.0%
C. Exercise	600	323/600 or 53.8%
D. Nutrition	720	487/720 or 68.0%
E. Interpersonal support	840	552/840 or 66.0%
F. Stress management	840	523/840 or 62.0%
	<u>5760</u>	

N = 30.

Table 19

Mean, Standard Deviation, and Sum of Subscales for Lifestyle Profile

Subscale	Mean	SD	Sum
A. Health and Responsibility	21.73	5.76	652
B. Self-actualization	36.17	7.21	1085
C. Exercise	10.77	3.60	323
D. Nutrition	16.23	3.41	487
E. Interpersonal Support	18.40	3.45	552
F. Stress Management	17.43	3.82	523

N = 30.

Table 20

Pearson Correlation Coefficients for Subscales of Lifestyle Profile

	Pearson coefficient	p value
A. Health and Responsibility	0.83661	0.0001
B. Self-Actualization	0.85669	0.0001
C. Exercise	0.49889	0.0050
D. Nutrition	0.63253	0.0002
E. Interpersonal Support	0.74389	0.0001
F. Stress Management	0.76154	0.0001

N = 30.

Summary of Findings

A summary of the findings is shown below:

1. There is a significant relationship between the health values of mature love (-0.36194 , $p < 0.0494$) and true friendship (0.40437 , $p < 0.0267$) and health promotion behaviors of health/responsibility, self-actualization, exercise, nutrition, interpersonal support, and stress management. No significant relationship was found between health values of happiness, health, health promotion, helpful, freedom, independent, responsible, self-controlled, self-respect, and social recognition and the health promotion behaviors of health/responsibility, self-actualization, exercise, nutrition, interpersonal support, and stress management.

2. There is a significant relationship between incentives of fitness/health, appearance, medical advice, socialization, pressure, independent, fun, feeling good, and belongingness ($r = 0.54298$, $p < 0.0019$) and health promotion behaviors.

3. There is a significant relationship between social support ($r = 0.63743$, $p < 0.0001$) and health promotion behaviors.

4. There are no significant relationships between gender, age, race, marital status, living arrangement, education, and health promotion behaviors.

5. There were significant relationships between subscales health/responsibility ($r = 0.83661$, $p < 0.0001$), self-actualization ($r = 0.85669$, $p < 0.0001$), exercise ($r = 0.49889$, $p < 0.0050$), nutrition ($r = 0.63253$, $p < 0.0002$), interpersonal support ($r = 0.74389$, $p < 0.0001$), stress management ($r = 0.76154$, $p < 0.0001$), and the Health-Promoting Lifestyle Profile Scale.

6. Instrument reliability was established for the Fomby Health/Health Promotion Value Scale (1985) ($\chi^2 = 44.6718$, $p < .001$) and Coefficient of Concordance ($W = 0.1354$); Incentive-Health Promotion Scale ($\alpha = 0.6671$); the Personal Resource Questionnaire, Part II (Brandt & Weinert, 1981), ($\alpha = 0.8277$); and the Health-Promoting Lifestyle Profile (Walker et al., 1986) ($\alpha = 0.9138$).

CHAPTER V

SUMMARY OF THE STUDY

This chapter contains a summary of the study, discussion of findings, conclusions and recommendations based on the findings. Implications as they relate to nursing education, practice, and research as well as a discussion of the limitations of the study are included.

Summary

The study used a descriptive correlational design with a randomly chosen sample of 30 senior citizens. Health values, incentives, and social support were tested for relationships to health promotion behaviors. Veroff and Veroff's (1980) theory of social goals and Pender's (1982) Health Promotion Model constituted the conceptual framework. Structured interviews were conducted either in the participant's apartment or in a private area. The interview schedule consisted of five parts: Demographics, the Fomby Health/Health Promotion Value Scale (1985), the Health-Promoting Lifestyle Profile (Walker et al., 1986), Incentive-Health Promotion Scale (researcher-developed), and the Personal Resource Questionnaire - Part II (PRQ-II) by Brandt and Weinert (1981).

Test score data were subjected to computerized Pearson's and Spearman's correlation to determine relationships. Cronbach's Alpha and Friedman H were applied to derive reliability coefficients of the instruments.

Discussion of Findings

The following discussion is structured by the hypotheses:

Hypothesis 1

Descriptive analysis of the data revealed that 33.5% of the sample ranked health as a value in the middle priority ranking. Thirty percent of the sample ranked health promotion in the same priority. This is incongruent with findings of Pender (1978) and Brown et al. (1983) whose studies ranked health in the top four.

Two health values were significantly correlated with health promotion behaviors. These were mature love and true friendship. Mature love was negatively correlated. The significant negative correlation of mature love could perhaps be due to the low ranking of this health value by the sample and the fact that the sample participants lived alone. True friendship proved to be more important than mature love.

If health values were more important to a person's lifestyle, then indeed more health values would have been found to signify a relationship. Laffrey and Isenberg (1983) reported similar findings in that the variable of health value proved to have little effect in their study. The Muhlenkamp et al. (1985) results also indicated that health values were not significantly correlated with type of treatment sought or with self-reported lifestyle practice.

Even though health and health promotion were ranked moderate in priority as an important value, persons will not necessarily take action. Some of the participants remarked that at their "age," nothing can change their health now. This attitude reflects what Moll (1982) stated. A person could believe in health, even state that they valued it, and still not make choices congruent with a healthy lifestyle.

Statistical analysis of the Fomby Health-Value/Health Promotion Scale (1985) for reliability was substantiated with a significant chi-square (44.6718, $p < 0.001$). Fomby previously established reliability on a sample of adolescents.

Hypothesis 2

A significant relationship was identified between incentives and health promotion behaviors. Hochbaum (1970) stated that people carry out acts to promote health for different reasons. This was substantiated in the study. The reasons are multiple.

In the present study the most favored response in participating in health promotion activities was that they made the subjects feel good. This supports Weiss' (1985) cue to action as feeling better physically. The next most favored response was fitness and health. These findings are congruent with Dishman and Ickes (1981). They found self-motivation was substantially related to the perception of exercise having a health and fitness benefit.

The third most favored response in the study was socialization. This verifies suggestions made by Simpson (1986), Weiss (1985), and Bockman (1985) that many people enjoy meeting people and interacting with others. The fourth most favored responses in the study were appearance and pressure from others. Weiss (1985) indicated a cue to action was appearance. Pressure from others was not found in the literature review unless some interpret this as support from others to participate in a health promotion program. If pressure and support are similarly interpreted

then the literature has overwhelming support (Bockman, 1985, Simpson, 1986; Weiss, 1985). For the present study, pressure was viewed as a negative incentive, yet a potent motivating one, whereas support was a positive incentive.

The fifth favored responses were independence and belongingness. The literature review does not address independence as an incentive as the present study does. Only one study (Bockman, 1985) addressed "belonging" as an incentive. Bockman's findings revealed that "belonging" to an exercise group involved obligation to others. This finding was predominant with females.

The least favored responses were medical advice and fun. Weiss (1985) identified as a cue to action physician advice. This is not congruent with the present study's finding. A reason for this could be that the group as a whole was well-elderly and physician advice was not needed to motivate this particular sample. The finding of fun not being a favored response is also incongruent with the literature. Simpson (1986) suggested that the most potent motivator is pleasure. Weiss (1985) and Bockman (1985) also listed fun as an important finding. The incongruency of this finding can be attributed perhaps to the studies having specifically to do with exercise and not health

promotion behaviors in general. In this sense, fun may not be seen as an important incentive.

The reliability coefficient of the researcher-developed Incentive-Health Promotion Scale was 0.6671 indicating that the tool was reliable in measuring incentive for this sample. This coefficient was not as high as was found in the pilot study. There could be many reasons for this. One reason could be the manner in which the data were collected. In the pilot study, the Incentive-Health Promotion Scale was distributed as a questionnaire. In the final study, interview was the data collection method. Other factors that may have been influential were differences in setting and sample. Reliability of a test will fluctuate depending on how, when, and to whom it is administered (Basch & Gold, 1985).

Hypothesis 3

A significant positive relationship was found between social support and health promotion behaviors. This finding is congruent with those of Berkman and Syme (1979), Lowenthal and Haven (1968), and Hubbard et al. (1984). All three of these studies found significant results with older Americans although two of the studies focused more on the individual's health rather than health promotion behaviors. Social support, according to the literature (Elder et al.,

1985; Hubbard et al., 1984; Pender, 1982) enhances health practices which in turn influence health.

Hypothesis 4

The variables of gender, age, race, marital status, living arrangements and level of education were correlated with health promotion behavior. No significant relationships were found.

Mechanic and Cleary (1980), Muhlenkamp et al. (1985), and Leventhal and Prohaska (1986) found gender and level of education related. This is dissimilar to the present study findings. Harris and Guten (1979), however, found that gender is unrelated to health and safety practices. Yet, Harris and Guten's findings do agree that education and health practices are related. They also found that age was the strongest predictor of health practices. Leventhal and Prohaska (1986) also found that older clients reported significantly more positive health practices.

Race was not indicated in the literature to be a factor correlated with health promotion behaviors. In view of the fact that the present study had a very small sample of blacks and that the blacks were less educated and of lower socioeconomic class may be more significant than ethnicity itself. In fact, most studies in the literature

have been reported on whites. Rosenthal (1986) believed differences in support levels are likely better to be predicted by socioeconomic rather than cultural factors. Other studies suggest that socioeconomic level relates to health practices (Edelman & Mandle, 1986; Harris & Guten, 1979; Muhlenkamp et al., 1985).

The Health-Promoting Lifestyle Profile proved to be a very reliable tool in the study (0.9138). In a tool refinement study by Walker et al. (1986), the reliability coefficient was 0.922.

The correlation coefficients for each subscale were obtained and found to be significant. The correlation coefficients for the present study ranged from 0.50 to 0.86. Exercise yielded the lowest correlation and self-actualization was found to be the highest for the sample. The findings of exercise and interpersonal support are consistent with the literature (Dishman & Ickes, 1981; Hubbard et al., 1984).

Conclusions and Implications

Conceptual Framework

The propositions derived from Pender and Veroff and Veroff are discussed in the following paragraphs. Each

proposition is stated and conclusions and implications are addressed:

Proposition One

Individuals are motivated to engage in health-promoting behaviors when they place a high value on health results (Pender, 1982).

This proposition was supported to some extent in that individuals are motivated to health-promoting behaviors when they place a high value on health. The present study supported the fact that individuals value health but did not necessarily put into action the entire array of health values tested in the study. Only two health values were significant in relation to health-promoting behaviors. These were mature love and true friendship. Interestingly, most individuals moderately ranked health as a value but so significant correlation was found. Rakowski and Hickey (1980) may offer some explanation in that beliefs about the future are unimportant, that one has accomplished all that was intended in life, or that one is living on borrowed time. According to Rakowski and Hickey, they are almost certain to have some impact on health behavior. Conclusively, at this point in their life, older persons value friendship.

Another conclusion that must be made is for health values to be looked at in more depth with further research exploring different age and ethnicity groups. The older population may prove to have very different results from a younger population in that older persons in the present sample believed it is too late to do anything to improve their health. Nursing implications for practice are to focus on attitude changes possibly through educational programs geared to health promotion in older persons. Many older persons are disease-oriented. The "youth bias", as Minkler (1983) calls it, must begin with health providers. Health promotion practices for older persons may become more effective with attitude changes and greater knowledge base in the nursing, medical, and other health care professions.

Minkler (1983) believed the focus of individual behavior change in most current health promotion efforts has resulted in a narrow definition of a target (the individual). Expanding the focus to inclusion of policy makers, providers, mass media, transportation systems and food manufacturers can aid in creating health-promoting environments. Some of these areas have hardly been touched. Each area of focus needs to take into account

that the majority of older persons have basic socioeconomic needs.

Proposition Two

A positive incentive is an anticipated transaction with the environment, external or internal, that has some attraction to the person such that when it is in the person's field, it increases the possibility that behaviors directed toward that transaction will occur (Veroff & Veroff, 1980).

The study supported this proposition. Conclusively, incentives are an essential factor for the motivational force within an individual to be energized and are very multifaceted. Veroff and Veroff's framework offers a well-grounded basis to explain reasons behind a person's behavior. The theoretical framework offers an explanation of negative incentives which can also be applicable to the study and refinement of the instrument. Even though the framework is sociologically based, it is very applicable to nursing in that nurses can increase their knowledge about motivation. Just as an educator has a better understanding of a student with increased teacher-knowledge about motivation, a nurse needs a knowledge base regarding a patient's motivation. A patient's change of behavior in a certain health act depends upon motivation.

Health promotion, an integral part of nursing, is just one application of motivation. Pender's (1982) model is based on motivational significance of personal factors such as importance of health, self-esteem, and many other concepts. Nurse educators, who use Veroff and Veroff and Pender will understand motivation in patients and can transmit this knowledge to nursing students. Tools to measure motivation can be developed. Theories of motivation can be taught. Motivation to avoid poor health may be different from motivation to maintain health.

Proposition Three

Social support positively influences health (Pender, 1982). This proposition was supported. Pender and other literature overwhelmingly support the influence that social support has on the psychological and physical health of a person. Health promotion is an area less well documented; however, the health promotion research findings are important. Social support is being realized in health care professionals' domains of practice. Social support is very complex and extensive research is needed regarding the concept. Nursing implications are many. It is very important for nurses not to underestimate the value of social support. Nurses must never forget to include the "significant other(s)" in planning nursing care. Health

promotion programs many times are focused on the individual. A different approach could be to plan health programs with and for families. Many businesses plan health programs for employees. Neighborhood programs could offer incentives to join in groups, e.g., families, friends, and neighbors. Some universities and colleges are beginning to advertise health promotion programs for students and faculty.

Research into social support should be continued and concentrated across all socioeconomic groups and ages. One important research study could be a historical exploration into what has been done and what is needed especially in the area of social support in gerontology and health promotion. Living arrangements should be examined. Targeting older persons in private residences as opposed to those who reside in apartments may have findings different from those of the present study.

Proposition Four

The demographic variables of gender, marital status, living arrangements, and income influence health promoting behaviors (Berkman & Syme, 1979; Langlie, 1977; Pender, 1982; U.S. Dept. of Health, Education, & Welfare, 1979).

This proposition was not supported in the study. However, Pender lists demographic variables as modifying

factors in relation to health promotion. The size and homogeneity of the sample may have influenced the non-significant findings. Implications for nursing research include a larger and more diverse sample with older married couples, private versus apartment living, various income levels, and ethnic groups.

Social support, incentives and health values must be studied in relation to various demographic factors. In order for nursing education and nursing care of older persons to improve, the knowledge base in gerontology must be increased. As the demographics of the population change, nurses will be called upon to provide nursing care to not only an older population, but a very diverse one.

The conceptual frameworks of Veroff and Veroff and Pender offered a different approach and perspective to view health promotion. Small excerpts from each theoretical formulation were utilized. Inclusion of more factors from each framework may add to the body of knowledge about a range of health-promoting behaviors practiced by older persons.

Instruments

The Fomby Health/Health Promotion Value Scale by Betty Fomby (1985) was a valuable tool in the study. The adapted version (ranking scale only) can be used in nursing and

across various age groups. Use with other ethnic groups might be approached with caution in that different ethnics with groups may define the terms differently. Fomby used the instrument with adolescents. Reliability was determined in adolescents and older persons. Reliability was higher when the rating scale was used. Validity was established by Fomby. One change in the tool would be to reduce the number of values for older research participants. Some of the participants complained of the number.

The Health-Promoting Lifestyle Profile by Walker et al. (1986) proved to be a very reliable instrument. Validity was established by Walker et al. through factor analysis. The scale can be used on all ages and occupations. Nursing could use the tool in hospitals, clinics, businesses, schools, and senior centers. A strength of the tool is that a certain area of a person's life could be assessed since the subscales differentiate the areas.

The Incentive-Health Promotion Scale developed by the researcher is a very useful tool, but further refinement is necessary. Major refinement would include negative incentives to health promotion. Some of these might be cost, transportation, time, and distance. This would

increase the length and improve the reliability. Further validity on other age groups as well as older persons needs to be established with larger and more diverse samples. One conclusion of the study was the confirmation of multiple incentives behind participation in health promotion activities. Ranking of incentives might provide knowledge of the importance of an incentive.

The Incentive-Health Promotion scale is applicable to all ages, but not applicable to inactive patients such as a bedridden person. The scale can be used as a motivation assessment tool for use in health promotion surveys and programs.

The Personal Resource Questionnaire-Part II (PRQ-II) is a very reliable instrument to measure social support. This instrument can be used on all ages. Reliabilities have been established on the older population. Testing should be done on other age groups, but refinement is needed for the child or adolescent since the instrument is geared toward the adult and older adult.

The PRQ-II can be used not only in research, but practice if social support needs to be assessed in a clinic, home, or hospitalized patient. Counselors may find the tool useful in assessing family problem areas.

Limitations

The variables of the study which may have limited conclusions of the study are discussed below:

1. The inability to control miscellaneous variables which include but are not limited to:
 - (a) Participants responding yes or no to an item rather than stating the questionnaire response.
 - (b) Participants forgetting to answer items according to what they actually do instead of answering what they like to do.
 - (c) Participants beginning to fatigue before the interview was completed.
 - (d) The inability to control setting regarding distractions such as noise, phone calls, and visitors.
2. The Incentive-Health Promotion Scale did not have reliability, validity, and social desirability tested on a large sample.
3. The sample was small, yet random. Generalization can only be made to similar samples and interpreted with caution due to the size of the sample.
4. The reactive effects of the interview and researcher on the participant are unknown.

Conclusions

The major conclusions of the study are:

1. Older persons value friendship.
2. Attitude changes in older persons are necessary in order for health promotion care practices to be effective.
3. Incentives are an essential multifaceted aspect of motivation.
4. Social support is an important component of good health.

In general, the study makes a contribution to knowledge of the older population and their lifestyle. The instruments are useful though one needs further refinement.

Recommendations

Recommendations for further research based on the conclusions are stated below:

1. Conduct research on the concepts of friendship with regards to older persons.
2. Implement various research methodologies on attitude change in older persons.
3. Determine the incentives for health which are attractive to older persons.
4. Continue all types of research in the area of social support for older persons.

5. Refine the Incentive-Health Promotion Scale to include negative incentives and then test the reliability, validity, and social desirability of the scale with a larger and more diverse sample.

6. Replicate the present investigation with sampling from an older population who live in private residences, attend clinics, or senior centers for lunch, daycare centers, and who have home health based services. In addition, various socioeconomic classes need to be tested since the literature reports class as an important factor.

7. Conduct multiple correlation/regression analyses to evaluate demographic characteristics in relation to health promotion behaviors.

8. The findings in the present study may suggest hypotheses to be tested insofar as variables to manipulate in experimental studies; the purpose being to increase health promoting behaviors.

The potential studies listed above may provide direction for gerontological nurses to plan programs and identify target areas in increasing health promotion awareness and participation. The information gained about health promotion could be incorporated into nursing education curricula.

As progress is made in the area of gerontology, nursing research must be ongoing to identify health needs of older adults. This would ultimately result in putting the phrase that is constantly reiterated into action. The phrase is, "to improve the quality of care and life for older Americans."

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APPENDIX A

Theoretical Analysis of Universal Incentives

THEORETICAL ANALYSIS OF UNIVERSAL INCENTIVES

Stage Basic Social Development Task	Motivational Mode	Stage	Cognitive Differentiation Required	Incentive Differentiated (What is valued)
Differentiation of self & others	e	Curiosity	Existence of the other	Knowing new cognitions
	c	Attachment	Constancy of the other	Familiarity
Differentiation of relationship to others	e	Assertiveness	Self as agent	What self does
	c	Social relatedness	Self is evaluated	What loved ones do
Differentiation of relationship to social organization	e	Belonging	Self is agent in roles	What groups do
	c	Consistency	Self transcends roles	What "I am"
Differentiation of interdependence of self with others/ society	e	Inter- dependence	Self is indispensable for other; other for self	What we do together
	c	Integrity	Self is alone	What "I am alone"

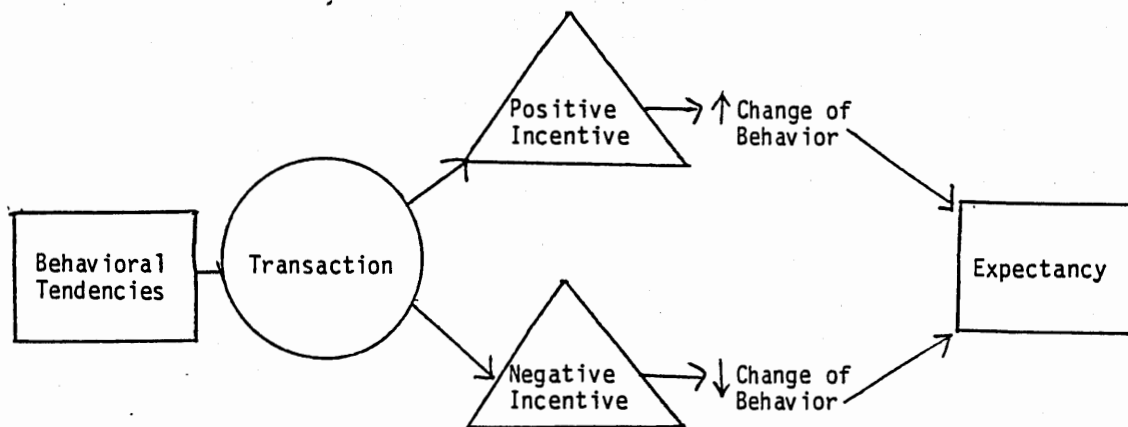
e = engagement
c = consolidation

Veroff, J., & Veroff, J. B. (1980). Social incentives:
A life-span developmental approach. New York:
Academic Press, p. 22.

APPENDIX B

Model of Concepts of Theory of Social Goals

MODEL OF THE CONCEPTS OF THE THEORY OF SOCIAL GOALS

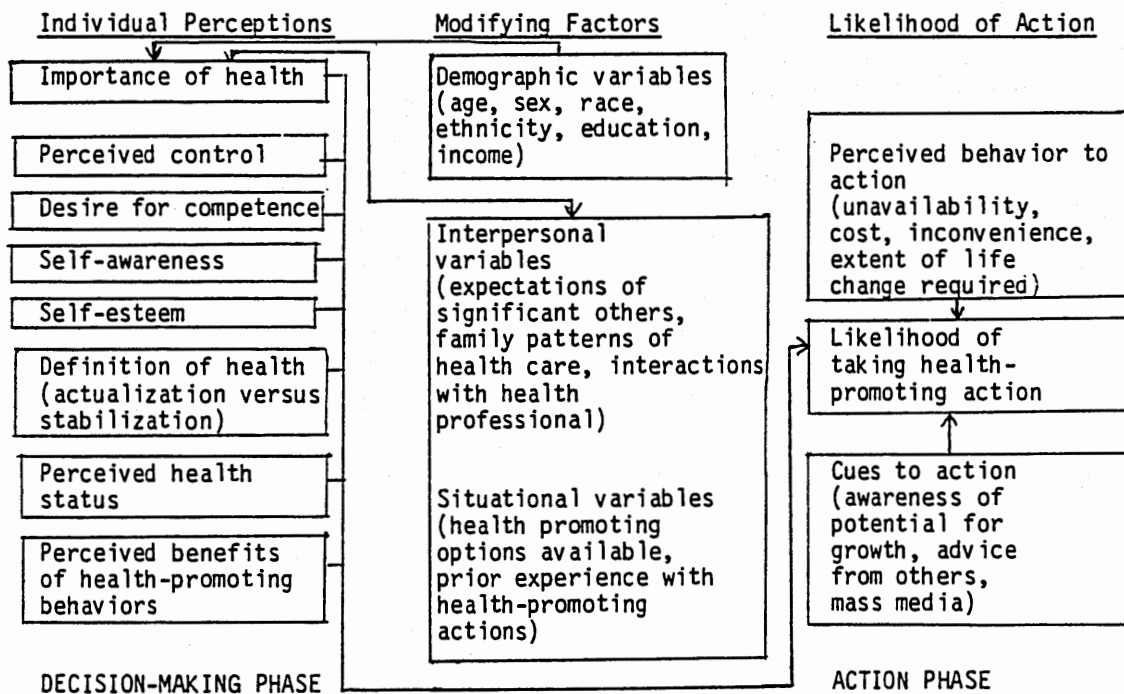


Veroff, J., & Veroff, J. B. (1980). Social incentives: A life-span developmental approach. New York: Academic Press.

APPENDIX C

Pender's Health Promotion Model

HEALTH PROMOTION MODEL



Pender, N. J. (1982). Health promotion in nursing practice. Norwalk, Ct: Appleton-Century-Crofts, p. 661.

APPENDIX D

Research Review Committee Exemption Form

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING



PROSPECTUS FOR DISSERTATION

This prospectus proposed by: Mary Ann Pascucci

_____ and entitled:

Health Values, Incentives, and Social Support
Related to Health Promotion Behaviors in
Older Persons

Has been read and approved by the members of (his/hers) Research
Committee.

This research is (check one):

xx Is exempt from Human Subjects Review Committee review

because the study requirements are within Category

I (no risk) according to the guidelines published in

the Federal Register, Jan. 26, 1981, Part X, 7/27/81.

_____ Requires Human Subjects Review Committee review

because _____

Research Committee:

Chairperson

Helen R. Burt

Member

Lizzy J. Blazo

Member

Margaret T. Beard

Member

James W. Hammond

Member

Carol A. Tanner

Anna L. Anderson

APPENDIX E

Graduate School Approval Letter



P.O. Box 22479, Denton, Texas 76204 (817) TWU-3400, Metro 434-1757

OFFICE OF CONTINUING EDUCATION
THE GRADUATE SCHOOL

November 10, 1986

Ms. Mary Ann Pascucci
2643 N. Meridian #229
Oklahoma City, OK 73107

Dear Ms. Pascucci:

I have received and approved the Prospectus for your research project. Best wishes to you in the research and writing of your project.

Sincerely,

A handwritten signature in cursive script that reads "Leslie M. Thompson".

Leslie M. Thompson
Provost

cc: Dr. Helen Bush
Dr. Anne Gudmundsen

APPENDIX F

Agency Permissions



"It's All About People"

November 10, 1986

LOUIS F. DANFORTH
Chairman
EDWARD J. BRAUN
Vice-Chairman
WILLIAM N. ATKINS
Commissioner
EMILYKAYE LONIAN
Commissioner
CONNIE MASHBURN
Commissioner
JACK G. WOMACK
Executive Director
JOHN H. JOHNSON
Associate Director

Ms. Mary Ann Pascucci
2634 N. Meridian, #229
Oklahoma City, Oklahoma 73107

Dear Ms. Pascucci:

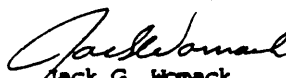
Reference your recent request for permission to conduct a study in six (6) of our Senior Citizen Housing Developments.

While we do not disapprove of the study, we are not able to give approval to your proposed method of delivery. Because of our No Solicitation Policy, letters may not be placed under the doors, however, arrangements could possibly be made through Nina Willingham, Salvation Army Senior Centers, to place them on a table in the Community Center. If such approval was received, an announcement could be made and participants interested could participate.

Please coordinate this activity through Mrs. Willingham, as she would be responsible for any Center Director's participation and involvement. You may reach her at 235-1732.

Thank you for your interest in our housing program and we wish you every success with your study.

Sincerely,


Jack G. Womack
Executive Director

JGW:SF:sg

cc: Nina Willingham, Salvation Army Senior Center
Housing Managers - OKLA 2-8
OKLA 2-9
OKLA 2-11
OKLA 2-15
OKLA 2-25
OKLA 2-29

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE WESTMINISTER MANOR

GRANTS TO Mary Ann Pasucci

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

HEALTH VALUES, INCENTIVES, AND SOCIAL SUPPORT RELATED TO HEALTH PROMOTION BEHAVIORS IN OLDER PERSONS

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other _____

Date: 10-17-86

Guenne E. Tucker
Signature of Agency Personnel

Mary Ann Pasucci
Signature of student

Helen A. Bush
Signature of Faculty Advisor

* Fill out & sign three copies to be distributed as follows:
Original - Student: First Copy - Agency; Second copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE WESLEY VILLAGE RETIREMENT COMMUNITY

GRANTS TO Mary Ann Pascucci

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

Health values, incentives and social support related to health promotion behaviors in older persons

The conditions mutually agreed upon are as follows:

1. The agency (may) ~~(may not)~~ be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) ~~(may not)~~ be identified in the final report.
3. The agency (wants) ~~(does not want)~~ a conference with the student when the report is completed.
4. The agency is (willing) ~~(unwilling)~~ to allow the completed report to be circulated through interlibrary loan.
5. Other _____

Date: 10-17-86

L. H. Higgins
Signature of Agency Personnel

Mary Ann Pascucci
Signature of student

Helen A. Bush
Signature of Faculty Advisor

* Fill out & sign three copies to be distributed as follows:

Original - Student: First Copy - Agency; Second copy - TWU College of Nursing.

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE ANDREWS, CLASSEN, HILLOREST, JELTZ, DANFORTH PUBLIC HOUSING

GRANTS TO Mary Ann Pascucci

a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem.

HEALTH VALUES, INCENTIVES AND SOCIAL^{ly} RELATED TO HEALTH
PROMOTION BEHAVIORS IN OLDER PERSONS

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other _____

Date: 10-27-86

Helen Jeffcoat
Signature of Agency Personnel
for Nina Williamson

Mary Ann Pascucci
Signature of student

Helen A. Bush
Signature of Faculty Advisor

* Fill out & sign three copies to be distributed as follows:

Original - Student: First Copy - Agency; Second copy - TWU College of Nursing.

APPENDIX G

Letter of Invitation

LETTER OF INVITATION

Dear _____:

As a nurse and graduate student at Texas Woman's University, I am interested in health promotion behaviors in the senior citizens. Your center has consented to the participation of residents in this project. You are, therefore, invited to participate in this project.

The purpose of this project is to identify incentives in older persons which lead to involvement in health promotion activities such as exercise and proper nutrition. This information should give insight into health promotion behaviors and assist health professionals like myself to give support and direction in providing health services.

If you so consent to participate in this project, your involvement will be to participate in an interview that will last approximately 30 minutes. Questions you will be asked relate to your health values and beliefs and your general lifestyle in relation to health promotion. Your responses are of utmost importance. In addition, your answers will be held in confidence and no other person will be allowed to see your answers. The answer sheet I will fill out during the interview will not have your name on it.

There are no anticipated risks to be incurred by you participating in this project. You will be allowed to stop your participation at any time if you so desire. One benefit of this project is that you may gain insight into your own health-promoting behaviors.

If you have any questions about this project, feel free to contact me at the University of Oklahoma College of Nursing at 271-2205. I will be contacting you in the next few weeks.

Thank you very much.

Sincerely,

Mary Ann Pascucci, M.S., R.N.

APPENDIX H

Oral Description

ORAL DESCRIPTION

A written description of what will be told participants by the investigator for the study:

1. The purpose of this study is to explore what you do to maintain a healthy lifestyle. There are five parts to this interview. Each part contains from 9 to 48 items. You and other volunteers have been selected to participate in this interview.
2. Questions have been formulated that I will ask you. An example of a question is: Indicate how often you eat breakfast. Your responses to the questions are very important and will later be analyzed with other responses.
3. You are free to stop your participation in this study at any time. Your responses to the study will be recorded on a form with a code number. Your name will not be on this form.
4. There is one potential risk to you in this study: Even with the greatest of care on the part of the investigator, there is always the possibility that the responses of the interview could be lost or stolen.
5. There are a few potential benefits to you in this study: You may gain insight into your own healthy or unhealthy behavior. Secondly, you may receive the results of the study if you so desire.

If, at any time, you have questions about the study, please contact me by calling 947-8431 or by leaving word with the secretary at the O.U. College of Nursing at 271-2205. If you would like a copy of the study results, please let me know.

APPENDIX I
Consent Form B

TEXAS WOMAN'S UNIVERSITY
HUMAN SUBJECTS REVIEW COMMITTEE

CONSENT FORM B

Title of Project: _____

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time. I further understand that no medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

Signature Date

Witness Date

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

Signature Date

Position

Witness Date

One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

APPENDIX J
Instruments

I.D. _____

HEALTH AND LIFESTYLE INVENTORY

Part I - Demographics

This part of the interview is for obtaining more specific information about you.

Gender:

Male () 1 Female () 2

Age: _____

Race/Origin:

White () 1 Black () 2 Hispanic () 3 American Indian () 4 Oriental () 5 Other () 6

Marital Status:

Never Been Married () 1 Unmarried (Divorced) () 2 Married/Living with Spouse () 3 Married/Not Living with Spouse () 4 Spouse Deceased () 5

Living Arrangements:

Live Alone () 1 Live with Spouse () 2 Live with Family () 3 Live with Roommate () 4

Education:

Some grade school () 1 Completed grade school () 2 Some high school () 3 Completed high school () 4 Some college () 5
Completed college () 6 Some graduate study () 7 Graduate degree () 8

Part II - Health Value

This is a list of health values. Please rank the factors from 1-12 according to how important each is in guiding your thoughts and actions. Place a number 1 to the left of the most important factor and so on. Do not use the same number more than once.

RANK	VALUES
_____	Happiness (contentedness or having fun with others)
_____	Health (being healthy)
_____	Health Promotion (acting to become healthier)
_____	Helpful (being of service to others)
_____	Freedom (making choices that are freely selected)
_____	Independent (self-reliant, self-sufficient)
_____	Mature Love (sexual and/or spiritual intimacy)
_____	Responsible (for own decisions)
_____	Self-Controlled (restrained, self-disciplined)
_____	Self-Respect (self-esteem, feeling good about yourself)
_____	Social Recognition (respect, admiration from others)
_____	True Friendship (close companionship)

Part III - Lifestyle Profile

This part contains statements regarding your present way of life or personal habits. Please indicate the regularity with which you engage in each behavior.

	Never	Sometimes	Often	Routinely
1. Eat breakfast.	N	S	O	R
2. Report any unusual signs or symptoms to a physician.	N	S	O	R
3. Like myself.	N	S	O	R
4. Perform stretching exercises at least 3 times per week.	N	S	O	R
5. Choose foods without preservatives or other additives.	N	S	O	R
6. Take some time for relaxation each day.	N	S	O	R
7. Have my cholesterol level checked and know the result.	N	S	O	R
8. Am enthusiastic and optimistic about life.	N	S	O	R
9. Feel I am growing and changing personally in positive directions.	N	S	O	R
10. Discuss personal problems and concerns with persons close to me.	N	S	O	R
11. Am aware of the sources of stress in my life.	N	S	O	R
12. Feel happy and content.	N	S	O	R
13. Exercise vigorously for 20-30 minutes at least 3 times per week.	N	S	O	R
14. Eat 3 regular meals a day.	N	S	O	R
15. Read articles or books about promoting health.	N	S	O	R
16. Am aware of my personal strengths and weaknesses.	N	S	O	R
17. Work toward long-term goals in my life.	N	S	O	R
18. Praise other people easily for their accomplishments.	N	S	O	R
19. Read labels to identify the nutrients in packaged food.	N	S	O	R
20. Question my physician or seek a second opinion when I do not agree with recommendations.	N	S	O	R
21. Look forward to the future.	N	S	O	R

	Never	Sometimes	Often	Routinely
22. Participate in supervised exercise programs or activities.	N	S	O	R
23. Am aware of what is important to me in life.	N	S	O	R
24. Enjoy touching and being touched by people close to me.	N	S	O	R
25. Maintain meaningful and fulfilling interpersonal relationships.	N	S	O	R
26. Include roughage/fiber (whole grains, raw fruits, raw vegetables) in my diet.	N	S	O	R
27. Practice relaxation or meditation for 15-20 minutes daily.	N	S	O	R
28. Discuss my health care concerns with qualified professionals.	N	S	O	R
29. Respect my own accomplishments.	N	S	O	R
30. Check my pulse rate when exercising.	N	S	O	R
31. Spend time with close friends.	N	S	O	R
32. Have my blood pressure checked and know what it is.	N	S	O	R
33. Attend educational programs on improving the environment in which we live.	N	S	O	R
34. Find each day interesting and challenging.	N	S	O	R
35. Plan or select meals to include the "basic four" food groups each day.	N	S	O	R
36. Consciously relax muscles before sleep.	N	S	O	R
37. Find my living environment pleasant and satisfying.	N	S	O	R
38. Engage in recreational physical activities (such as walking, swimming, soccer, bicycling).	N	S	O	R
39. Find it easy to express concern, love, and warmth to others.	N	S	O	R
40. Concentrate on pleasant thoughts at bedtime.	N	S	O	R
41. Find constructive ways to express my feelings.	N	S	O	R
42. Seek information from health professionals about how to take good care of myself.	N	S	O	R
43. Observe my body at least monthly for physical changes/danger signs.	N	S	O	R

	Never	Sometimes	Often	Routinely
44. Am realistic about the goals that I set.	N	S	O	R
45. Use specific methods to control my stress.	N	S	O	R
46. Attend educational programs on personal care.	N	S	O	R
47. Touch and am touched by people I care about.	N	S	O	R
48. Believe that my life has purpose.	N	S	O	R

Health-Promoting Lifestyle Profile by Susan N. Walker, Karen Sechrist,
& Nola J. Pender, 1986.

**Part IV - Reasons (Incentives) to
Participate in Health Promotion Behaviors**

Health promotion means activities that you do to maintain or enhance your well-being or make you feel better. These might include exercise, avoiding smoking, gardening, eating a nutritious diet, and so forth. Please state the number which best describes how you feel about each statement.

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I participate in health promotion activities because they improve my fitness and health..	1	2	3	4	5	6
I participate in health promotion activities because they improve my appearance..	1	2	3	4	5	6
I participate in health promotion activities because of medical advice..	1	2	3	4	5	6
I participate in health promotion activities because I like to socialize..	1	2	3	4	5	6
I participate in health promotion activities because I feel pressure from others to do so..	1	2	3	4	5	6
I participate in health promotion activities because they help me to remain independent..	1	2	3	4	5	6
I participate in health promotion activities because it is fun..	1	2	3	4	5	6
I participate in health promotion activities because they make me feel good..	1	2	3	4	5	6
I participate in health promotion activities because I like to belong..	1	2	3	4	5	6

Part V - Social Support Systems

The last set of questions includes questions relating to your social network. For example, your friends and family. Please indicate the response which best describes how you feel.

STATEMENTS	Strongly agree	Agree	Somewhat agree	Neutral	Somewhat disagree	Disagree	Strongly disagree
There is someone I feel close to who makes me feel secure.....	7	6	5	4	3	2	1
I belong to a group in which I feel important.....	7	6	5	4	3	2	1
People let me know that I do well at my work (job, homemaking).....	7	6	5	4	3	2	1
Sometimes I can't count on my relatives and friends to help me with important problems.....	7	6	5	4	3	2	1
I have enough contact with the person who makes me feel special.....	7	6	5	4	3	2	1
I spend time with others who have the same interests that I do.....	7	6	5	4	3	2	1
There is little opportunity in my life to be giving and caring to a child or young person	7	6	5	4	3	2	1
Others let me know that they enjoy working with me (job, committees, projects).....	7	6	5	4	3	2	1
There are people who are available if I needed help over an extended period of time.....	7	6	5	4	3	2	1
Often there is no one to talk to about how I am feeling.....	7	6	5	4	3	2	1
Among my group of friends, we do favors for each other.....	7	6	5	4	3	2	1

STATEMENTS	Strongly agree	Agree	Somewhat agree	Neutral	Somewhat disagree	Disagree	Strongly disagree
I have the opportunity to encourage others to grow and develop their interests and skills.....	7	6	5	4	3	2	1
My family lets me know that I am important for keeping the family running.....	7	6	5	4	3	2	1
I have relatives or friends that will help me out even if I can't pay them back.....	7	6	5	4	3	2	1
When I am upset, there is someone I can be with who lets me be myself.....	7	6	5	4	3	2	1
I often feel no one has the same problems as I.....	7	6	5	4	3	2	1
I enjoy doing little "extra" things that make a child's or young person's life more pleasant.....	7	6	5	4	3	2	1
I know that others appreciate me as a person.....	7	6	5	4	3	2	1
There is someone who loves and cares about me.....	7	6	5	4	3	2	1
I have people to share social events and fun activities with.....	7	6	5	4	3	2	1
I am responsible for helping to provide for a child's or young person's needs.....	7	6	5	4	3	2	1
If I need advice, there is someone who would assist me to work out a plan for dealing with the situation.....	7	6	5	4	3	2	1
I have a sense of being needed by a child or young person.....	7	6	5	4	3	2	1
Sometimes people think that I'm not as good a friend as I should be.....	7	6	5	4	3	2	1
If I got sick, there is someone to give me advice about caring for myself.....	7	6	5	4	3	2	1

STATEMENTS	Strongly agree	Agree	Somewhat agree	Neutral	Somewhat disagree	Disagree	Strongly disagree
I have the opportunity to encourage others to grow and develop their interests and skills.....	7	6	5	4	3	2	1
My family lets me know that I am important for keeping the family running.....	7	6	5	4	3	2	1
I have relatives or friends that will help me out even if I can't pay them back.....	7	6	5	4	3	2	1
When I am upset, there is someone I can be with who lets me be myself.....	7	6	5	4	3	2	1
I often feel no one has the same problems as I.....	7	6	5	4	3	2	1
I enjoy doing little "extra" things that make a child's or young person's life more pleasant.....	7	6	5	4	3	2	1
I know that others appreciate me as a person.....	7	6	5	4	3	2	1
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I have people to share social events and fun activities with.....	7	6	5	4	3	2	1
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If I got sick, there is someone to give me advice about caring for myself.....	7	6	5	4	3	2	1

STATEMENTS	Strongly agree	Agree	Somewhat agree	Neutral	Somewhat disagree	Disagree	Strongly disagree
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I have relatives or friends that will help me out even if I can't pay them back.....	7	6	5	4	3	2	1
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I often feel no one has the same problems as I.....	7	6	5	4	3	2	1
I enjoy doing little "extra" things that make a child's or young person's life more pleasant.....	7	6	5	4	3	2	1
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There is someone who loves and cares about me.....	7	6	5	4	3	2	1
I have people to share social events and fun activities with.....	7	6	5	4	3	2	1
I am responsible for helping to provide for a child's or young person's needs.....	7	6	5	4	3	2	1
If I need advice, there is someone who would assist me to work out a plan for dealing with the situation.....	7	6	5	4	3	2	1
I have a sense of being needed by a child or young person.....	7	6	5	4	3	2	1
Sometimes people think that I'm not as good a friend as I should be.....	7	6	5	4	3	2	1
If I got sick, there is someone to give me advice about caring for myself.....	7	6	5	4	3	2	1

Personal Resource Questionnaire, Part II by Patricia Brandt and Clarann Weinert, 1981.

APPENDIX K

Description of Panel of Experts and
Letter of Request

PANEL OF EXPERTS

From the University of Oklahoma Health Sciences Center

Mary Allen, R.N., Ph.D., College of Nursing
Associate Professor, Graduate Program

Verna Holtzen, R.N., M.S., College of Nursing
Assistant Professor, Baccalaureate Program

Sharol Jacobson, R.N., Ph.D., College of Nursing
Director, Nursing Research; Professor, Graduate Program

June Schmele, R.N., Ph.D., College of Nursing
Assistant Professor, Graduate Program

William Wiist, Ph.D., College of Public Health
Assistant Professor, Social Sciences and Health Behaviors



SAMPLE LETTER OF REQUEST TO EXPERT PANEL

The
University of Oklahoma
Oklahoma City Campus - Health Sciences Center

COLLEGE OF NURSING

November 5, 1985

June Schmele, R.N., Ph.D.
 Assistant Professor
 Graduate Program
 University of Oklahoma
 College of Nursing
 COLLEGE MAIL SERVICE

Dear June:

I am preparing to conduct a pilot study on "An Investigation of Health Promotion Behaviors in the Elderly." I am in the process of developing an instrument to determine the relationship between health values, incentives, and social support to health promotion behavior in the well-elderly.

In order to do this, I need some expert opinions and criticisms regarding the instrument I am devising. The instrument will be administered in the form of an interview with six parts.

Will you spend some time reading through my instrument (particularly the section on incentives)? The incentive section includes questions that I have devised whereas the other sections were adapted from tools in the literature. As you read through the interview schedule, keep in mind these questions:

1. Do you have suggestions on format and/or sequencing of questions?
2. Does the content of the questions affect my proposal?
3. Are the questions clear and answerable? (If no, please list recommendations to improve questions.)
4. Are all terms clear and understandable? (If no, please list terms which should be restated or clarified.)
5. How long do you feel the interview should last?
6. Do you have any other suggestions for improvement of the interview? (If yes, please explain.)

Feel free to mark on the form. I have enclosed a brief overview of the study. You will notice that the social support scale is missing. I am still reviewing the tools available from the literature.

I appreciate any of your comments. Thank you very much for your time and effort.

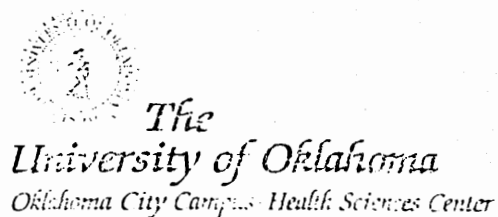
Sincerely,

Mary Ann Pascucci, R.N., M.S.
 Instructor
 MAP:bjm

Enclosure

APPENDIX L

Requests and Permissions to Utilize Other Researchers' Works



COLLEGE OF NURSING

February 27, 1985

Joseph Veroff
Joanne B. Veroff
Department of Psychology
University of Michigan
Ann Arbor, Michigan 48109

Dear Authors:

I am a doctoral nursing student at Texas Woman's University and am devising a study on Incentives Leading to Health Promotion Behaviors in the Elderly.

I have read your book Social Incentives and am very impressed with the content and I am considering to use parts of it as a theoretical framework for my study.

First of all I want to request permission to do this and also, have you devised a tool to measure incentives or do you know of one?

Please let me know your response as soon as possible and thank you for your consideration in this matter.

Sincerely,

Mary Ann Pascucci, R.N., M.S.
Instructor
OU College of Nursing

MAP:db



The University of Michigan

DEPARTMENT OF PSYCHOLOGY

580 UNION DRIVE
ANN ARBOR, MICHIGAN 48109-1346

March 7, 1985

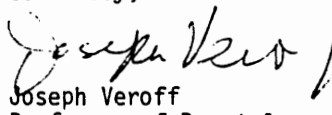
Ms. Mary Ann Pascucci, R.N., M.S.
Instructor
OU College of Nursing, Health Sciences Center
The University of Oklahoma
Oklahoma City, Oklahoma 73190

Dear Ms. Pascucci:

We're pleased that you are finding our book Social Incentive of interest, and are thinking of using it as a framework for your research. No single measure of all incentives exist, at least in the way that we have discussed them. In each chapter we discuss measures of individual differences of each of the motives. The Edwards Personal Preference Inventory comes as close to an omnibus existent measure as any. You may have to devise your own for your specific interests - using the ideas of the book. Enclosed is an example of how we used the scheme to measure the incentives that might be involved in people's intimate relationships.

Good luck.

Cordially,


Joseph Veroff
Professor of Psychology

JV/fk

Enclosure

Northern Illinois University 
DeKalb, Illinois 60115-2854

Health Promotion Research Program
Social Science Research Institute
Ambulatory Cancer Clients Project
Corporate Project
Older Adults Project
815 753 1901

March 6, 1985

Mary Ann Pascucci, R.N., M.S.
Instructor
College of Nursing
University of Oklahoma Health Science Center
P.O. Box 26901
1100 North Stonewall
Oklahoma City, Oklahoma 73190

Dear Ms. Pascucci:

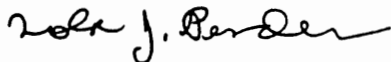
Thank you for your kind letter indicating interest in my Health Promotion Model. You are welcome to use any part thereof in your thesis, as long as the source is acknowledged.

Currently, we are funded to test a refined version of the Health Promotion Model. I am enclosing a copy of the research program grant CORE abstract, as well as copies of the three component project abstracts.

I particularly noted your interest in health promotion among the elderly. Dr. Susan Walker, a nurse gerontologist, direct that project. Since you may wish to contact Dr. Walker, I am taking the liberty of passing your letter on to her. Also, if at any time you are looking for a colloquium or research conference speaker for your university, Dr. Walker would be excellent. Health promotion among older adults is a growing area of research and one that nurses ought to be informed about.

Good luck with your doctoral research. I would appreciate receiving an abstract of your completed research.

Cordially,



Nola J. Pender, Ph.D., R.N., F.A.A.N.
Program Director

NJP:kg

Enclosure
cc Dr. Susan Walker



The
University of Oklahoma
Oklahoma City Campus - Health Sciences Center

COLLEGE OF NURSING

January 17, 1986

Susan N. Walker, Ed.D, R.N.
Associate Professor
Gerontological Nursing
Northern Illinois University
Health Promotion Research Program
DeKalb, Illinois 60115-2854

Dear Dr. Walker:

I wrote to you back in July inquiring about your instrument entitled Health-Promoting Lifestyle Profile. Your response letter dated July 31, 1985 enclosed the instrument. After looking it over, I decided that I would like to use it for my pilot study that I will begin this month. It appears to be a very thorough and well-devised scale. However, I would like to request permission to omit Subscales E and F. I know that you prefer that the profile be used in its entirety and normally I would do so, but my plans are to conduct an interview with elderly clients - approximately 10-20 subjects. I plan to investigate health values, incentives, health behaviors (which is the part I would use your scale for) and social support systems. As it is, I am trying to keep my entire instrument down to as few pertinent questions as possible so the interview won't last too long. Part F, in particular would be repetitious since I have a scale by Brandt and Weinert that I will be using.

I am enclosing an instruction form for my instrument. The title of my study is "An Investigation of Health Promotion Behaviors in the Well-Elderly." Basically, I want to see if there is any correlation between health values, incentives and social support in health promotion behaviors of the elderly. I plan to conduct the research in Oklahoma City at Senior Citizen Housing centers.

If you need any other information please let me know. Also, you mentioned that you had a manuscript submitted for publication regarding your instrument. If so, please let me know of the journal entry so that when I write my paper I can give you proper credit.

Page 2
Dr. Susan Walker

Thank you for your consideration in this matter. I would appreciate a response as soon as possible.

Sincerely,

Mary Ann Pascucci, R.N., M.S.
Assistant Professor

MAP:db

Enclosure

Northern Illinois University 
DeKalb, Illinois 60115-2854

Health Promotion Research Program
Social Science Research Institute
Ambulatory Cancer Clients Project
Corporate Project
Older Adults Project
815 753 1901
753-9670

January 30, 1986

Mary Ann Pascucci, M.S., R.N.
Assistant Professor
University of Oklahoma College of Nursing
P.O. Box 26901, 1100 N. Stonewall
Oklahoma City, Oklahoma 73190

Dear Ms. Pascucci:

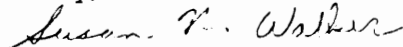
I am in receipt of your request for permission to use the Health-Promoting Lifestyle-Profile in your study of health-promoting behaviors in the well elderly. First, let me tell you that the instrument has been further refined since the time of your initial inquiry last July. We just were not happy with some of the ambiguity that was present in the factor structure when we retained 70 items. Therefore, additional items were eliminated and the final version contains only 48 items. It appears that the revised version has greater construct validity than the longer one.

I am enclosing a copy of the revised instrument, scoring instructions, and an updated version of the summary of developmental work and psychometric evaluation. I am also including a copy of the abstract of the paper which I presented at the A.N.A. Council of Nurse Researchers' meeting in San Diego in December, which you may cite as the reference for psychometric information about the Lifestyle Profile.

Since the instrument has now been shortened, you should have no difficulty in using it in its entirety in your study. Elimination of the self-actualization subscale, which is the dominant factor in the instrument, might significantly alter what you are measuring. My own current study of health-promoting behavior among older adults employs more instruments than you are contemplating using. While I had anticipated that 3 hours might be required for completion of the instrument battery, we have found that the great majority of literate well elderly are able to do the task in close to 1 hour. I suspect that your pilot will confirm the same.

If, after evaluating the enclosed materials, you decide that you would like to use the 48 item version of the Health-Promoting Lifestyle Profile in its entirety in your research, you have our permission to do so under the condition that you will share your results with us. We are interested in developing norms for the instrument and in knowing of the relationship of its scores to other variables. Please do not hesitate to call me if you need further information or explanation. Do let me know what you decide.

Sincerely,



Susan N. Walker, Ed.D., R.N.
Associate Professor and Director, Older Adult Project

Encl.

November 11, 1985

Dr. Patricia A. Brandt, Ph.D., R.N.C.
Assistant Professor
Parent and Child Nursing
WJ-10, University of Washington
Seattle, Washington 98195

Dear Dr. Brandt:

Thank you for sending me information regarding your instrument. I am preparing to conduct a pilot study on the relationship between health values, incentives, and social support in health promotion behaviors in the well-elderly. I plan to implement this study in the Spring of 1986. I anticipate a sample size at this time of no more than 10 people (this could change) since this is a pilot study. I will draw from the well-elderly population at Senior Citizen Centers. I am the principal investigator of the study.

Since my study involves other concepts to measure (health values and incentives), I am drawing from other instruments in the literature to make-up my instrument. This will also be used as an interview and I am trying to keep it as short as possible. I realize that you prefer the PRQ to be used in complete form. I would like to ask permission to use only Part II of the Questionnaire. Using both parts would make a very lengthy interview since I have other subscales in the interview. Would this be possible?

I appreciate your consideration in this matter as soon as possible. I would be willing to share any results and agree to other stipulations.

Thank you again,

Mary Ann Pascucci, R.N., M.S.
Assistant Professor
O.U. College of Nursing
P.O. Box 26901
1100 N. Stonewall
Oklahoma City, Oklahoma 73190

MAP:db

Enclosed: Check

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195
Parent-Child Nursing, WJ-10

November 18, 1985

Mary Ann Pascucci, R.N., M.S.
Assistant Professor
University of Oklahoma
College of Nursing
P.O. Box 26901
1100 N. Stonewall
Oklahoma City, Oklahoma 73190

Dear Ms. Pascucci:

Thank you for your letter of November 11. Please do use only Part II of the PRQ if that fits within your design the best. We hope that investigators do not take a few questions, for example, out of sections like Part II, and use them. Rather, your plan is most appropriate to use the whole of Part II as there is psychometric data for that section.

Let me know if you would like additional information.

Sincerely,



Patricia Brandt, R.N., Ph.D.
Assistant Professor

PB:ks

December 10, 1985

Betty L. Fomby
3400 Joyce Lane, Apt. #109
Denton, Texas 76201

Dear Betty,

It was very interesting to hear about your study last Tuesday, December 3. I appreciate you allowing me to use your health value scale for my pilot study which I will be conducting in the spring.

I will keep you informed on how things go when I pilot test. Good luck on your dissertation!

Thanks again,

Mary Ann Pascucci

Mary Ann Pascucci
O.U. College of Nursing
P.O. Box 26901
1100 N. Stonewall
Oklahoma City, Oklahoma 73190

July 21, 1986

Betty L. Fomby
3400 Joyce Lane, Apt. #109
Denton, Texas 76201

Dear Betty,

How have you been? Sorry it has been so long in getting back to you regarding my study "Health Values, Incentives and Social Support in relation to Health Promotion Behaviors in Older Persons."

I completed my pilot in Spring and it went well. I decided not to collect data on all the instruments but instead to collect data only on the tool I developed Incentive-Health Promotion Scale. The purpose of my pilot was to establish reliability and validity on this part. I did, however, field test my methodology which included an interview format. This is where I utilized your tool. So I don't have any data to report to you as yet.

When I did field test your instrument, I found difficulty during the interview on the Rating part. The older persons I interviewed did not understand this second part. So, I have decided to omit this for the major study and keep the ranking part of your scale. I know this eliminates the original intention of your scale. Nevertheless, with your permission I would like to use only the first part of your tool.

You must be progressing well on your dissertation and soon we will be calling you Dr. Fomby. Right?

Tentatively, I plan to carry out the interviews in the late fall. Please let me know how you feel about the above and also any address changes so that when I finally collect data and write Chapter four I can forward this information to you for your use.

Good Luck.

Sincerely,

Mary Ann Pascucci
Mary Ann Pascucci

MAP:db

Betty L. Fomby, PhD., R.N.
Route #1 Box 139
Homer, Louisiana 71040

July 31, 1986

Mary Ann Pascucci
University of Oklahoma
College of Nursing
P.O. Box 26901
1100 N. Stonewall
Oklahoma City, Oklahoma 73190

Dear Mary Ann:

Your letter informing me of your desire to alter my Values Scale has been received. You have my permission to use the tool in whatever way that best fits your research.

Since last talking with you I have altered the tool somewhat and am sending you the revised Scale. Perhaps these changes will better suit your purpose. I look forward to receiving data pertaining to the use of my tool.

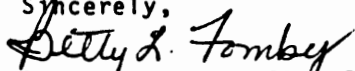
Yes I am now Dr. Fomby. Graduation is August 16th and I am looking forward to going home.

Good luck to you in your research and all your future endeavors. Please keep in touch. Also, please tell all of my Oklahoma friends I said hello.

By the way several of my articles are being reviewed for publication. An article entitled "Development of an Instrument to Measure Personal Values" is being reviewed by the Journal of Health Values. Hopefully through this wide exposure my Values Scale will be widely used and tested further.

In my dissertation research my scale was factor analyzed and 5 factors having eigenvalues greater than one emerged for the ranking scale and 2 factor for the rating scale. These factors accounted for over 80% of the variance, which is good for such a highly personalized scale. Again good luck to you.

Sincerely,


Betty L. Fomby, PhD., R.N.

October 15, 1986

Joseph Veroff
Joanne B. Veroff
Department of Psychology
University of Michigan
Ann Arbor, Michigan 48109

Dear Authors:

Back in February of 1985 I wrote requesting permission to use your book Social incentives: A life-span developmental approach as a theoretical framework for my study. Permission was granted for this. At this time, I would like to ask permission to use the outline "Theoretical Analysis of Universal Incentives" on page 22 of your book. I want to use this in the Appendix of my dissertation. Do you have any objections to this?

I appreciate your consideration of the above.

Sincerely,

Mary Ann Pascucci, M.S., R.N.
Assistant Professor, OUCN

MAP:db



The University of Michigan

DEPARTMENT OF PSYCHOLOGY

580 UNION DRIVE
ANN ARBOR, MICHIGAN 48109-1346

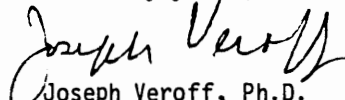
October 24, 1986

Mary Ann Pascucci, M.S., R.N.
Assistant Professor
The University of Oklahoma
Oklahoma City Campus - Health Sciences Center
College of Nursing
P.O. Box 26901
1100 N. Stonewall
Oklahoma City, OK 73190

Dear Ms. Pascucci:

Feel free to reproduce the outline "Theoretical Analysis of Universal Incentives," (p. 22, Social Incentives) as an appendix to your dissertation. We are delighted to have you make use of it.

Sincerely yours,


Joseph Veroff, Ph.D.
Professor of Psychology

JV/dh

October 15, 1986

Dr. Nola Pender
Northern Illinois University
College of Nursing
DeKalb, Illinois 60115

Dear Dr. Pender:

Back in February of 1985 I wrote requesting permission to use the Health Promotor Model as a base framework for my dissertation proposal "Health Values, Incentives and Social Support Related to Health Promotion Behaviors in Older Persons." Permission was granted for this. At this time I want to ask permission to use the diagram of Individual Perceptions, Modifying Factors and Likelihood of Action on page 66 of your book Health Promotion In Nursing Practice. I would like to use this in the Appendix of my dissertation. Do you have any objections to this?

I want to thank you for the information you have sent me in the past and also for your consideration of the above.

Sincerely,

Mary Ann Pascucci, M.S., R.N.
Assistant Professor, OUCN

MAP:db

Northern Illinois University 
DeKalb, Illinois 60115-2854

Health Promotion Research Program
Social Science Research Institute
Ambulatory Cancer Clients Project
Corporate Project
Older Adults Project
815 753 1901
753-9670

October 27, 1986

Mary Ann Pascucci, M.S., R.N.
Assistant Professor
College of Nursing
University of Oklahoma
1100 N. Stonewall
Oklahoma City, Oklahoma 73190

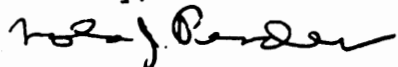
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Cordially,



Nola J. Pender, Ph.D., R.N.
Program Director

NJP:ktg



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Thank you for your consideration in this matter.

Cordially,

Mary Ann Pascucci

Mary Ann Pascucci, M.S., R.N.
 Assistant Professor
 O.U.H.S.C.
 College of Nursing
 P.O. Box 26901
 1100 N. Stonewall
 Oklahoma City, Oklahoma 73190

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I would like your permission, also. This diagram (Theoretical Analysis of Universal Incentives) would be placed in the appendix section of my dissertation.

Thank you for your consideration in this matter.

Sincerely,

Mary Ann Pascucci

Mary Ann Pascucci, M.S., R.N.
Assistant Professor
Oklahoma University Health Sciences Center
College of Nursing
1100 N. Stonewall
P.O. Box 26901
Oklahoma City, Oklahoma 73190

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APPENDIX M

Pilot Study Letter and Instructions

PILOT
LETTER OF INVITATION FOR INCENTIVE SECTION

Dear _____:

Thank you for consenting to participate in this project. Attached is the questionnaire I would like you to fill out. It will take just a few minutes of your time.

Please fill this out within a few days and return in the stamped envelope. On the next page is a definition of health promotion that you should read in order to help you answer the questionnaire. Also included are the instructions. It is not necessary to put your name on this questionnaire.

In about two weeks from the date you return the first questionnaire, I will send you only one more questionnaire. Please fill this out also even if it sounds like the same questionnaire. It is very important to fill out both and return promptly. This will then conclude the project.

Thank you for your time.

Sincerely,

Mary Ann Pascucci

INSTRUCTIONS

Health promotion means activities that you do to maintain or enhance your well-being or make you feel better. These might include exercise, avoiding to smoke, gardening, eating a nutritious diet, and so forth.

Please circle the number that corresponds to how you feel about each statement on the left. The responses include strongly disagree, disagree, somewhat disagree, somewhat agree, agree and strongly agree. There is no right or wrong answer!

APPENDIX N

Frequency Responses and Percentages

for Health Values

Frequency Responses and Percentages for Health Values

Health Value (Ranking)	Frequency	Percent
<u>Happiness</u>		
1	6	20.0
2	4	13.0
3	2	6.7
4	6	20.0
5	3	10.0
6	2	6.7
7	1	3.3
8	2	6.7
9	1	3.3
10	2	6.7
11	1	3.3
12	--	--
<u>Health</u>		
1	5	16.7
2	2	6.7
3	2	6.7
4	1	3.3
5	1	3.3
6	2	6.7
7	3	10.0
8	1	3.3
9	3	10.0
10	4	13.3
11	4	13.3
12	2	6.7
<u>Health Promotion</u>		
1	1	3.3
2	1	3.3
3	3	10.0
4	4	13.3

(table continues)

Health Value
(Ranking)

Frequency

Percent

Health Promotion (continued)

5	2	6.7
6	1	3.3
7	2	6.7
8	5	16.7
9	3	10.0
10	3	10.0
11	5	16.7
12	--	--

Helpful

1	2	6.7
2	6	20.0
3	5	16.7
4	3	10.0
5	3	10.0
6	1	3.3
7	--	--
8	6	20.0
9	1	3.3
10	1	3.3
11	--	--
12	2	6.7

Freedom

1	1	3.3
2	2	6.7
3	5	16.7
4	--	--
5	1	3.3
6	3	10.0
7	4	13.3
8	2	6.7
9	2	6.7
10	2	6.7
11	4	13.3
12	4	13.3

(table continues)

Health Value (Ranking)	Frequency	Percent
<u>Independent</u>		
1	1	3.3
2	4	13.3
3	6	20.0
4	1	3.3
5	2	6.7
6	2	6.7
7	2	6.7
8	2	6.7
9	3	10.0
10	5	16.7
11	--	--
12	2	6.7
<u>Mature Love</u>		
1	2	6.7
2	1	3.3
3	--	--
4	1	3.3
5	--	--
6	3	10.0
7	3	10.0
8	1	3.3
9	5	16.7
10	3	10.0
11	3	10.0
12	8	26.7
<u>Responsible</u>		
1	2	6.7
2	4	13.3
3	--	--
4	6	20.0
5	4	13.3
6	3	10.0
7	2	6.7
8	3	10.0
9	--	--

(table continues)

Health Value (Ranking)	Frequency	Percent
<u>Responsible</u> (continued)		
10	3	10.0
11	3	10.0
12	--	--
<u>Self-Control</u>		
1	1	3.3
2	1	3.3
3	2	6.7
4	2	6.7
5	6	20.0
6	4	13.3
7	3	10.0
8	2	6.7
9	2	6.7
10	1	3.3
11	3	10.0
12	3	10.0
<u>Self-Respect</u>		
1	5	16.7
2	1	3.3
3	2	6.7
4	3	10.0
5	4	13.3
6	3	10.0
7	2	6.7
8	1	3.3
9	5	16.7
10	--	--
11	3	10.0
12	1	3.3
<u>Social Recognition</u>		
1	1	3.3
2	--	--
3	1	3.3
4	--	--

(table continues)

Health Value (Ranking)	Frequency	Percent
<u>Social Recognition</u> (continued)		
5	1	3.3
6	4	13.3
7	3	10.0
8	2	6.7
9	3	10.0
10	4	13.3
11	3	10.0
12	8	26.7
<u>True Friendship</u>		
1	3	10.0
2	4	13.3
3	2	6.7
4	3	10.0
5	3	10.0
6	2	6.7
7	5	16.7
8	3	10.0
9	2	6.7
10	2	6.7
11	1	3.3
12	--	--

N = 30.