HEALTH PERCEPTION, IMPORTANCE OF HEALTH
AND PRERETIREMENT PLANNING

by
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STATEMENT BY AUTHOR

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>LISTING OF FIGURE</td>
<td>vii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>viii</td>
</tr>
<tr>
<td>CHAPTER I</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Significance of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>4</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>5</td>
</tr>
<tr>
<td>Assumptions</td>
<td>6</td>
</tr>
<tr>
<td>Null Hypotheses</td>
<td>13</td>
</tr>
<tr>
<td>Operational Definitions</td>
<td>16</td>
</tr>
<tr>
<td>CHAPTER II</td>
<td></td>
</tr>
<tr>
<td>SELECTED REVIEW OF THE LITERATURE</td>
<td>18</td>
</tr>
<tr>
<td>Preretirement Programs - Background</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>18</td>
</tr>
<tr>
<td>The Extent of Preretirement Programs</td>
<td>20</td>
</tr>
<tr>
<td>in Industry</td>
<td></td>
</tr>
<tr>
<td>Core Components of Preretirement Programs</td>
<td>23</td>
</tr>
<tr>
<td>Health as a Retirement Concern</td>
<td>26</td>
</tr>
<tr>
<td>Health as a Component of Preretirement Programs</td>
<td>29</td>
</tr>
<tr>
<td>The Impact and Evaluation of Health in Preretirement Programs</td>
<td>31</td>
</tr>
<tr>
<td>CHAPTER III</td>
<td></td>
</tr>
<tr>
<td>RESEARCH METHODOLOGY</td>
<td>34</td>
</tr>
<tr>
<td>Research Design</td>
<td>34</td>
</tr>
<tr>
<td>The Sample</td>
<td>35</td>
</tr>
<tr>
<td>Data Collection Method and Protocols</td>
<td>36</td>
</tr>
<tr>
<td>Reliability and Validity of the Instruments</td>
<td>38</td>
</tr>
<tr>
<td>Health Perceptions Questionnaire</td>
<td>38</td>
</tr>
<tr>
<td>Rank Order of Retirement Needs</td>
<td>41</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>42</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS--Continued

**CHAPTER IV**

**PRESENTATION OF THE DATA.**
- Profile of the Subjects ........................................... 46
- Reliability of the Instruments ................................... 47
- Findings Related to Current Health .............................. 49
- Overall Results of the Study .................................... 51
- Findings Related to the Null Hypotheses ....................... 55
- Findings Related to the Research Questions .................... 59

**CHAPTER V**

**DISCUSSION AND SUMMARY.**
- Findings Related to the Conceptual Framework ............... 62
- Findings Related to the Review of the Literature .......... 65
- Limitations of the Study ......................................... 67
- Implications for Nursing ........................................ 72
- Recommendations for Further Research ......................... 73
- Summary ..................................................................... 75

**APPENDIX A**: Planning for a Healthy Retirement .......... 77
**APPENDIX B**: Health Perceptions Questionnaire ........... 95
**APPENDIX C**: Rank Order of Retirement Needs ............... 99
**APPENDIX D**: Subject Profile Form ............................ 101
**APPENDIX E**: Retirement Planning 1981 Seminar Agenda .... 103
**APPENDIX F**: Questionnaire Disclaimer for Human Subjects Approval ........................................... 105
**APPENDIX G**: Human Subjects Approval ......................... 107
**APPENDIX H**: Permission to Use Ware's HPQ. ............... 109
**APPENDIX I**: HPQ Scoring Rules ............................... 111
**REFERENCES** ................................................................ 113
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reliability Coefficients for the Measurement Instruments HPQ, RORN and the HPQ Subscales</td>
<td>48</td>
</tr>
<tr>
<td>2. Comparative Current Health Pretest Scores of the Subgroup: Employee Status, Age and Sex</td>
<td>50</td>
</tr>
<tr>
<td>3. Pretest and Posttest Raw Scores of HPQ, Health Outlook and RORN &quot;Health&quot; Subscales for the Sample</td>
<td>52</td>
</tr>
<tr>
<td>4. Comparative Analyses of the Pretest and Post-test Scores by the HPQ, Health Outlook and RORN &quot;Health&quot; Subscales for the Sample</td>
<td>52</td>
</tr>
<tr>
<td>5. Rank Order Percentages Listing Health as a Retirement Concern in the Pretest and Post-test by the Sample and Subgroups: Employee Status, Age and Sex</td>
<td>54</td>
</tr>
<tr>
<td>6. Employees and Significant Others Pretest and Posttest Raw Scores of the HPQ, Health Outlook and RORN &quot;Health&quot; Subscales</td>
<td>56</td>
</tr>
<tr>
<td>7. Employees and Significant Others Comparative Pretest and Posttest Scores by the HPQ, Health Outlook and RORN &quot;Health&quot; Subscales</td>
<td>57</td>
</tr>
<tr>
<td>8. The Subgroups Age and Sex Comparative Pretest and Posttest Scores by the HPQ, Health Outlook and RORN &quot;Health&quot; Subscales</td>
<td>60</td>
</tr>
<tr>
<td>Figure</td>
<td>Listing</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
</tbody>
</table>
ABSTRACT

The conceptual framework for this study was based upon theories of aging and retirement adjustment. The study's purpose was to determine the relationship between preretirement health education and health perception and importance of health in retirement among employees and significant others. In addition, differences in responses between the age groups and sexes regarding health outlook and priority of health as a retirement concern were studied.

Forty-four preretirees participated in this study by attending "Planning for a Healthy Retirement" component of the Preretirement Seminar and by completing questionnaires at the commencement and close of the Seminar. The questionnaires measured general health perceptions along with priority of health related to relevant retirement concerns.

The findings suggested that there were no significant changes (.05 level) in health outlook or importance of health in retirement after preretirement health education for either employees or significant others. The data also revealed that neither age nor sex influenced the effect of preretirement health education. However, differences between pretest and posttest mean scores were found to point in a favorable direction, indicating a positive trend.
towards preretirement health education leading to a more positive health outlook along with a higher priority given to health as a retirement concern.
CHAPTER I
INTRODUCTION

Retirement from the world of work is more than a matter of economics. Social as well as economic events are significant variables in the process of retirement. The process of retirement requires adaptation from the role of the worker to the role of the retiree. Losses, changes and adjustments associated with the process of retirement demand understanding of the retirement process along with mature coping skills to successfully adopt the role of the retiree. Health, a basic resource for social role enactment, is a particularly important variable in coping throughout the transition period in regard to role change and loss perceived in retirement. Most individuals who face imminent retirement are not prepared for their new role. This is due to factors such as forced early retirement and the individual's not being prepared to confront himself in a nonworking environment (Foley, 1972).

Recently several studies have been conducted on the extent of preretirement planning in industry. In the late sixties, Pyron (1969) discovered that only a fraction of the 100 major industries interviewed had implemented an
adequate Preretirement Program. Only 12 of the respondents had instituted counseling programs that satisfied the criteria established by the author.

A similar study was conducted in 1977 which suggested that 61% of the employees in nine major corporations and four large unions had no plans for retirement nor had been given any significant counseling on how to prepare for retirement (Fitzpatrick, 1978).

Seigal and Rives (1980) interviewed 300 firms representing a good cross section of business in moderately high growth stages. One hundred companies participated in the study and it was found that only 51% had preretirement counseling and 46% of the companies which offered Preretirement Programs focused on only the financial aspects of retirement.

Prentis (1980) interviewed 1,235 white collar working women in an attempt to identify their retirement needs. It was found that there was inadequate preparation for retirement among the group of women. Not surprisingly, 87% of the women indicated that they would like to participate in a formal Preretirement Program.

The problem is global. Earland (1979) reported that in her study of 30 retired English persons, two-thirds did not have access to a Preretirement Program in their work setting.
At the present time, preretirement planning in industry appears to be inadequate for the needs of the employee population and incomplete in the range of topics covered in the formal presentation. It has been suggested that Preretirement Programs could improve morale among older employees (Green et al., 1969), improve productivity (Kalt & Kahn, 1975), and foster loyalty to the company among former workers (Green et al., 1969). It may also reduce the number of accidents in the workplace among older employees (Ossofsky, 1978). These findings established a cost benefit factor of Preretirement Programs for industry, thereby providing motivation to increase and improve upon new and existing Preretirement Programs.

Another factor to be considered is a demographic variable which has become more important in advanced technological ages. Due to increased life expectancy and the post World War II baby boom, the age group 65 and over is expected to approximately double in size between 1980 and 2020, moving from 24 million in 1980 to 45 million in 2020 (Siegal, 1980). Presently, of the 24 million older Americans, one-third are between the ages of 65 to 69 years of age suggesting that a significant number of persons have retired within the past five years from that cohort alone. In addition, the average American who reaches 65 years of age can expect to live 16 more years marking their life
expectancy at 81 years of age (Siegal, 1980). Consequently, if persons retire at age 65, they can assume that about one-fifth of their life will be spent in retirement. It is essential that individuals become aware of how to promote wellness and prevent illness throughout their working and retired lives so that they can remain productive, vital, and continue to make meaningful contributions in American society.

Statement of the Problem

The study sought to answer the following question: Does the health planning portion of the Preretirement Program affect individuals' perception of future health status and the importance of health as a retirement concern?

Significance of the Problem

Perceived health status is an important aspect of objective as well as subjective health status. An individual's outlook on future health will effect present and future health practices along with life style choices. With a positive perception of future health, an individual will be presented with more options in retirement so that the quantity as well as the quality of choices are available. Awareness of the individual's control over future life events will facilitate positive adjustment and promote
a favorable attitude toward retirement. Additionally, awareness of the importance of health needs in retirement will provide a basis for adaptation in regard to the bio-psycho-social needs associated with the retirement process.

Occupational health nurses play a vital role in the retirement process experienced by workers. Occupational health nurses usually begin their assessment, intervention and evaluation of employees during the preplacement physical exam. The nursing process continues over the employee's work span, ending at the termination of employment. Preretirement health education assists the employees by preparing them for optimal wellness in their retirement years. By providing the health education early in the employee's career, occupational health nurses promote wellness in the middle adult years which will bear significance on the employee's state of health in later life. Therefore, occupational health nurses can create a meaningful impact on the health state of their employees during the work years and in retirement.

Purpose of the Study

The researcher's interest in retirement preparation began during a personal experience involving a significant other's conflict with retirement planning. The concept of preretirement planning was researched in a graduate course
and it was found that there was a limited amount of nursing literature pertaining to retirement preparation. Further research revealed only a few articles which dealt specifically with components of retirement programs. And even fewer articles were found on the effectiveness of preretirement planning.

The health education model "Planning for a Healthy Retirement" was developed to fulfill a nursing administration requirement and it was the aim of this thesis to evaluate the effectiveness of this health education model.

If preretirement education is found to positively influence health perception and priority of health in retirement, then the implications for nursing could be far reaching. The purpose of this research study is not only to determine the effectiveness of preretirement health education. Findings of research studies provide the body of knowledge for nursing theory, therefore it is hoped that the findings of this study will contribute to nursing theory, specifically occupational health nursing theory.

**Conceptual Framework**

Retirement is a key concept in social gerontological theorizing. Social gerontologists view retirement as a major factor in the socialization of the aging individual - a transition period with major ramifications for future
life satisfaction. Business and industry's expectations and social gerontology theory are supported by research which indicated that retirees who plan for their retirement reported higher levels of life satisfaction than retirees who have not planned (Ash, 1966; Greene et al., 1969; Streib and Schneider, 1971). Social gerontology is a subfield of gerontology that deals primarily with non-physical factors of aging, however, biology and psychology are the root of social aspects of aging. Therefore, physical and mental health must be integrated within the retirement framework insofar as they influence the ways in which individuals and society adopt each other.

The activity theory developed by Havighurst and Albrect (1953) is supported by many theorists and researchers, for it suggests that continued active participation throughout middle age and retirement years will contribute to positive adjustment to retirement. The activity theory is "an implicit theory of aging which suggests that personal satisfaction depends on a positive self-image which is validated through continued active participation in middle age roles. When roles end because of age they must be replaced to avoid feelings of decline and uselessness" (Ward, 1979:104). The older person who ages optimally is the person who stays active and who manages to resist the shrinkage of his social world; he maintains the activity of
middle age as much as possible and then finds substitutes for those activities he is forced to relinquish (Havighurst, Neugarten and Tobin, 1968:761). Havighurst (1977) suggested that leisure patterns would probably become more significant for life satisfaction of the individual and more salient as determiners of the quality of a society in the years ahead.

Studies have already indicated that continuation of meaningful activity would lead to adjustment and satisfaction. Activity that is physical and/or social in nature has shown the most positive effect on life satisfaction (Peppers, 1976). Additionally, life satisfaction appeared to be influenced by the number of activities performed and the degree that participation is enjoyed (Peppers, 1976). The theory supports the concept that activity fulfills needs left void by retirement. A group of retirees were questioned about activities in which they engaged to satisfy their needs; and whether these present needs were different from or similar to those in their previous jobs. Ninety-two and four-tenths percent stated that their activities were different while their needs remained the same (Sheldon, McEvan and Ryser, 1975). Thompson (1973) investigated the morale among retired and employed men and found that employment status did not effect morale among the group, concluding that the leisure/activity role for the
group may have been an entirely adequate substitute for the former workers. Simpson, Back and McKinney (1966) studied the three levels of work status: professional, blue-collar and white-collar occupational roles. The researchers identified the most important variables which affected the male's orientation to work. It was found that relationships which originally developed because of work and which have helped to integrate the person into society need not necessarily be discarded at retirement. The researchers suggested that individuals with significant levels of activity, high degrees of wellness and favorable attitudes toward retirement tended to adjust better to retirement than those without those qualities.

Studies on retirement agree that health and activity do positively affect adjustment and satisfaction. When people lose certain roles or the capacity to perform certain activities, a logical solution is to find a substitute for that activity rather than to disengage from society. Crisis in retirement can occur if the individual is unprepared emotionally, physically, or socially to cope with the adaptation process incurred by the transition of worker to retiree. Individuals can avoid the retirement crisis by planning ahead - developing a multitude of interests during the adult years, therefore creating a wide variety of activity that can be enjoyed throughout the lifetime without
being affected by age. If prior social contacts can be maintained, and if mutual psycho-support and meaningful activity can be developed and sustained, then adaptation to aging and retirement is likely to be much easier than if there is a sharp disruption of the individual's whole social network (Havighurst, 1977).

Atchley (1980:214) described the continuity theory: "When an individual grows older he is predisposed toward maintaining a continuation of habits, associations and preferences in earlier years. Earlier experiences and life styles are maintained as much as possible. Consolidation of commitments and redistribution of available energy is activated toward remaining roles and activities." The identity continuity theory and the data which gave rise to it, suggested that leisure can have a great deal of positive value as the bridge between pre- and postretirement life; and this value will increase in the future (Atchley, 1971). Peppers (1976) wrote that previous social conditioning may have important social implications for involvement or non-involvement in roles later in life; and diversifying activities in the middle years may be a significant contributing variable in retirement satisfaction. Activity is suggested to be a significant complement, alternative and substitute for work; however, if work holds the central organizing position in a person's life, the continuity
theory or consolidation approach does not appear to be a successful strategy (Fillenbaum, 1971).

Health and activity appear to be significant variables in the adjustment process of retirement. "General health ratings assess a factor theoretically common to measures of physical, mental and social components of health status ... and are designed to assess the subjective as well as objective aspects of health status as perceived by the respondents" (Ware, 1978:21:1). Atchley (1980) explained that in a cross-sectional study of 1,107 adults (50 years and older), it was found that low self-rated health was related to low activity. This study supports the concept of the interrelation between perceived health and degree of activity among older adults.

Somatic complaints such as gastrointestinal upset and headaches may manifest themselves in the pre- and post-retirement period. These complaints can heighten during the retirement process due to confusion related to the changes of role and activity. The complaints worsen if one does not find a satisfactory life style and work supplement after retirement (Butler, 1975).

Health rating, particularly self-rating of health, has appeared to be one of the most significant current determinants of life satisfaction (Palmore and Luikart, 1972). Palmore conducted a four-year longitudinal study of
life satisfaction among persons between the ages 46 to 70 and found no significant changes with age in level of satisfaction suggesting that perceived health status was established in the earlier years and continued throughout retirement. Fox (1977) noted in a study of female retirees that one of the real consequences of the retirement process was a change in health perception in addition to decreased level of social contacts.

The activity theory or substitution approach appears to be an appropriate strategy in retirement if no significant planning has been accomplished before the event of termination from work. However, development of new interests, skills and expectations during the middle years facilitates a smooth shift from preretirement to postretirement roles (Sussman, 1972). It has been established that, in retirement, perceived health status affects activity level and that perceived health usually has been established in the earlier adult life, possibly regardless of clinical health status. To support successful adaptation and adjustment, individuals need to be aware of the retirement needs and preparation to be accomplished before that event. Knowledge and awareness is sought concerning the adaptation from the role of the worker to the role of the retiree. The roles are individualized, therefore, workers need to reevaluate their own needs and find meaningful
activities to accommodate for the perceived loss in retirement. Positive perception of future health will increase the options of fruitful activity, thereby providing more opportunity for successful adjustment into retirement and an increase in life satisfaction during the pre- and post-retirement years.

A model summarizing the components of the conceptual framework is illustrated in Figure 1. The conceptual framework is supported by the activity and continuity theories of aging. The theories are based upon the belief that positive adjustment to retirement occurs with the maintenance of vital roles and activities over the adult life span. It is theorized that perceived health status affects both the degree of activity and options available in retirement. Activity and health are related positively to positive adjustment in retirement. Planning for retirement is thought to provide the basic information for optimal wellness and socialization, thereby promoting positive adjustment to retirement.

Assumptions

The design of the study rested upon the following assumptions:

1. Components of the Preretirement Seminar dealing with role adjustment and activity will have
FIGURE I

Conceptual Model of Health Perception of Workers Related to the Preretirement Planning Process and Retirement Adjustment.

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<thead>
<tr>
<th>Preretirement Planning Process</th>
<th>+</th>
<th>Awareness of Health as a Retirement Concern</th>
<th>=</th>
<th>Worker's Successful Adjustment to Retirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td></td>
<td>activity</td>
<td></td>
<td>Physical, Social, Outlook, Goals</td>
</tr>
<tr>
<td>Living Arrangements</td>
<td></td>
<td>perceptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role Adjustment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Aspects</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Health</td>
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<td></td>
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complemented the presentation "Planning for a Health Retirement", however, their impact on the study was unknown.

2. At the time of the study, participants will have held either an occupational or homemaker role and will have shown interest in retirement planning.

3. Participants will have answered truthfully on the subject profile and the testing instruments.

**Null Hypotheses**

The following null hypotheses were tested:

1. The "Planning for a Health Retirement" component of the Preretirement Seminar will have no effect on employees' perception of their health outlook in retirement.

2. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on significant others' perception of their health outlook in retirement.

3. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on employees' priority of health as a retirement concern.
4. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on significant others' priority of health as a retirement concern.

In addition the following questions were considered:

1. Does age influence the effect of "Planning for a Healthy Retirement" on the participants' perception of their health outlook and priority of health in retirement?

2. Does sex influence the effect of "Planning for a Healthy Retirement" on the participants' perception of their health outlook and priority of health in retirement?

**Operational Definitions**

The following terms were defined for the study:

Preretirement Program - a comprehensive program offering a diversified curricula of the retirement needs pertinent to the employee and their significant others.

"Planning for a Health Retirement" - a comprehensive program offering pertinent information on prevention, maintenance and control of health concerns related to aging and retirement. See Appendix A.

Perceived health status - an individual's self-evaluation of prior, current and future mental and physical state of health.
Health outlook - the future health status after the retirement event.

Occupational role - role held by individuals engaged in gainful employment.

Significant other - an individual, such as a spouse, who holds a significant role in the employee's social network.
CHAPTER II

SELECTED REVIEW OF THE LITERATURE

Chapter II includes the review of the literature which relates to the extent, content and evaluation of Preretirement Planning Programs in industry.

Preretirement Programs - Background Information

Preretirement planning is not a new phenomenon; however, only recently have Preretirement Programs been added in companies' benefit packages. Preretirement Programs were developed due to advanced industrial technology which affected social structure particularly involving the older American. Earland (1979) explained that Preretirement Programs evolved due to several potent issues affecting American workers: complexity of tax laws; increase in number of retirement pensions and regulations; large social security benefits with complicated regulations; people living longer and remaining healthier; and employees' desire for increased guidance on remaining active and healthy. Problems associated with adaptation to occupational withdrawal in later life are unique to industrial societies. For societies to enhance the lives of older adults or provide opportunity for self help, increased understanding of
the processes occurring in later life is necessary (Powers, Keith and Goudy, 1980). Thompson (1958) has found in his work with older adults that an accurate preconception of retirement was important for successful adjustment. Additionally, having plans for retirement was positively related to a successful adjustment to retirement. The data which suggested that an accurate preconception of retirement and planning for retirement were essential for successful adaptation have worked as a catalyst in the initiation of Preretirement Programs in industry.

Retirement can be viewed as an "event which occasions a complex social process of adaptation conditioned by a variety of resources and temporal variables" (Maddox, George, 1977:461). Preparing for that event requires that an individual goes through a process to prepare for the new role and to adapt to the new pattern once terminated from the occupational role. Preretirement Programs are involved with preparing the worker to face the new role of retiree which in turn will foster positive adaptation to that role.

The development of retirement preparation programs which emphasize planning for retirement rather than adjustment to retirement requires the communication of relevant information to each employee that will foster a more realistic appreciation of retirement circumstances and provide a much improved basis for decision making prior to retirement. (Morrison, 1975:142).
The extent of Preretirement Programs in industry will be discussed in the next section, however, it can be mentioned that Preretirement Programs are not very widespread. There is evidence to suggest that Preretirement Programs can be effective; adjustment to retirement is enhanced by better preparation and more realistic expectations, resulting in higher post-retirement involvement, lower job deprivation, better self-rated health and greater satisfaction with retirement income (Greene et al., 1969; Pyron and Manion, 1970; Atchley, 1980).

These findings along with increased awareness of workers' well being and the possible cost effectiveness of providing Preretirement Programs have provided the impetus to industry to offer counseling to older workers for their retirement needs.

The Extent of
Preretirement Programs
in Industry

There have been several studies which have attempted to determine the extent of Preretirement Programs within industry. It has been suggested that the highest preretirement coverage is in the communication industries and public utilities and the lowest coverage is in the retail trade and services (Cassel, 1979). Preretirement Programs should provide "information and awareness of retirement needs;
clarification of attitudes related to aging, retirement and change; and motivation to promote the concept of inner strength and control." (Ossofsky, 1978:29).

In 1969, Pyron investigated the extent of Preretirement Programs in 100 major industries. The criteria developed included that Preretirement Programs be: offered to all employees at least 55 and over, on company time with voluntary attendance, include spouses, include group and individual counseling, and should include diverse curricula relating to the social, psychological and physical needs as well as financial needs in a five to twenty hour program.

Only 12 out of 100 companies interviewed had met the criteria established by the author.

In 1973, the editors of Industrial Gerontology interviewed three major industries on the policy for older workers. Pacific Telephone incorporated a Preretirement Program which included benefits, insurance and health. The program was offered to all employees within five years of retirement and the company also provided individual counseling. Lockheed employed an individual voluntary counseling session with the addition of an inhouse newsletter. A program was "in the works" at the time of interview and was to include a health and nutrition segment in their Preretirement Program. Walt Disney Productions explained that they
had no Preretirement Program because they had no mandatory retirement and therefore needed no preretirement counseling.

The most recent survey has been conducted by Seigal and Rives (1980). Questionnaires were sent to 300 firms within The Fortune 500 companies and a 33% (100) return was received. Fifty-one percent of the companies had Preretirement Programs and 89% of those who did not have Preretirement Programs planned to institute one within the next five years. Thirty-two percent of the companies with Preretirement Programs limited the counseling to salaried personnel; 66% offered counseling in conjunction with regular work hours; and 57% invited spouses. Forty-six percent offered financial planning only. Ninety percent of the reporting companies wanted to improve their programs by covering more pertinent information in increased depth, encouraging more active participation, implementing one on one counseling, and utilizing their retired personnel as resources. The author also found that only 9% of the firms offering Preretirement Programs focused on the employees' physical and psychological adjustment to retirement which were included in a health component.

It has been concluded that the present Preretirement Programs in industry are inadequate in meeting the needs of the older employee and that Preretirement Programs must include a comprehensive framework available to all
employees at least five years prior to retirement (Fitzpatrick, 1978; Glasmer and De Jong, 1975; Kasschau, 1974; Tiberi and Boyack, 1978).

Core Components of Preretirement Programs

There is much agreement among researchers and educators that the Preretirement Program must provide a broad spectrum of subjects pertinent to the interests of individuals preparing for retirement. Most researchers agree that at least seven components be included in the Preretirement Program:

1. pension and social security benefits
2. personal financial planning
3. health needs
4. housing and living accommodations
5. leisure time activities
6. retired time activities
7. legal aspects

(Glasmer and De Jong, 1975; Greene et al., 1969; Lynch, 1979; Ossofksy, 1978; O'Rourke, 1978; Tiberi and Boyack, 1978; Utes, 1972; West, 1980). It is also believed that Preretirement Programs should be introduced early in the worker's career. Effective long-range health and financial planning should begin in the mid-forties; planning for leisure and avocation for part-time employment should begin
in the 50's; and serious planning for early retirement should be initiated in the last few years before retirement (Kasschau, 1974).

The concept of earlier worker orientation to retirement is supported by the data which suggests that reaction to retirement is one of the most crucial aspects of human development in aging and that the closer an employee reaches the retirement age, the more likely it is that the employee will not want to retire (Monk, 1971). Ideally retirement preparation should begin when the individuals reach their mid to late forties so to provide an awareness of retirement needs and expectations and thereby lessen the negative anticipation. Preparation should continue with increasing and sharpening focus through the fifties and sixties (Ossofsky, 1978).

Preretirement Program planners also agree that significant others should be included in the preparation process. Individual's significant others are crucial to both the development of his preretirement attitude and post-retirement adjustment (Cox, 1978; Streb and Schneider, 1971).

The emphasis of Preretirement Programs should be on planning (Kasschau, 1975), although the promotion of positive attitude must also be reinforced (Monk, 1972). Goals of Preretirement Programs should contribute to "the
individual's understanding of the adaptation process of change in current social structure and promotion of personal self-confidence in encountering the years of later maturity." (Bolton, 1976:551). Most researchers agree that planning should be done in phases (Conklin, 1973; Kasschau, 1974). Tiberi and Boyack (1978) analyzed four Preretirement Program models to determine which mode of instruction was most valuable. An experimental design was employed testing 295 participants and 66 controls. It was found that the type of model utilized did make a difference on effective short-term behavioral, informational and attitudinal change. The facilitated interactional model which fosters group interaction was noted to be the most effective. Although with a large group and a small budget it was found that seminar format or lecture discussion style was the most efficient and convenient way to disseminate a vast amount of information to a large number of employees (Charles, 1971).

Ash (1966) expressed the view that individual counseling despite time and money was the only way to deal satisfactorily with the divergent needs of all employees, however, Charles (1971) found that follow-up counseling requests were infrequent.

It could be concluded that Preretirement Programs require a diverse series of presentations designed to meet
the individual and group needs of the employee. Planning should begin early in the occupational life span to prevent a negative attitude toward retirement. A well-prepared program should include the presentations of relevant information in a seminar form utilizing lecture and discussion format, in addition to having individual counseling available to employees desiring further assistance in planning for their retirement.

**Health as a Retirement Concern**

Health as a major component in the Preretirement Program has often been neglected in the core content matter. Good health is the basis for all productive activity yet industry has just recently begun to emphasize the importance of preparing for a healthy retirement. In 1963 the World Health Organization discussed the importance of health on retirement: "Maintenance of some measure of occupational activity adapted to the physical and mental needs of retired persons appear to be one of the best methods of slowing down the aging process." (Brown, 1973:357). Work satisfaction and happiness are two of the best predictors of age standardized longevity along with maintenance of health, mental abilities and satisfying social roles being the most important factors that promote longevity (Palmore 1965).
"There is much mythology built in the notion of an emotional and physical condition known as the 'retirement syndrome' characterized by anxiety and depression" (Butler, 1975:72). There is no evidence that retirement causes poor health (Riley and Forner, 1968). Though poor health is a major cause of retirement, substantial retirees reported that their health status improved following retirement with the removal of the mental and physical strains of work (Streib and Schneider, 1971). Eis dorfer (1972) supported the notion that a significant number of retirees reported improved health. Martin and Doran (1968) suggested that retirement may precipitate a drop in illness. It was found that health status and preretirement feeling about retirement were more significant predictors of retirement attitude and satisfaction than that of the voluntary/involuntary decision to retire (Kimmel, Price and Walker, 1978). Additionally, dissatisfaction with retirement continued to be associated with health problems (Barfield, 1978).

It has been noted that men in their 60's were reluctant to anticipate retirement due to fear of early death (Monk, 1971), and that fearful attitudes toward retirement were often related to on-the-job accidents, psychosomatic illness and lowered morale (Ossofsky, 1978).
A cross-sectional study of 1163 retired persons was conducted by Sheldon, McEvan and Ryser (1975). The data revealed that 25% of the retired persons reported health to be the most important concern in their lives. To be "alive and healthy" was reported to be the most meaningful activity among 43% of the respondents. The data suggested that health was a crucial factor in both the decision to retire and the quality of retired life. It was also found that those who had a positive attitude toward retirement also experienced more satisfaction with their state of health, had fewer limitations of activities and had fewer symptoms related to illness.

McPherson and Guppy (1979) interviewed 360 employed males between the ages of 55 and 64. The data suggested that for those who perceived their health to be good or excellent, they also recognized that they had more options as to when to retire and how to spend their retirement years.

In a recent study of 1235 white collar working women it was found that health was a major concern specified prior to making decisions to retire and that 65% of the women believed that a health topic would be beneficial in a Preretirement Program (Prentis, 1980).

Kimmel, Price and Walker (1978:584) researched the retirement attitudes of 1486 recent retirees from seven
large U.S. firms. The data suggested that "the post retirement health status was highly associated with attitudes about retired life and retirement satisfaction so Preretirement Programs should include substantial health education for aging adults and counseling for health maintenance and monitoring."

Health as a Component of Preretirement Programs

Planning for retirement requires the development of realistic expectations based upon appropriate information and adequate resources. The primary objective of health education is to prevent illness and maladaptation and promote wellness by providing individuals with information and awareness of health needs and practices. Risk factors are presented and information is given about maintenance and prevention, however, it is important for the individual to assume a large degree of control over his present and future state of health (Barron, 1975). The emphasis in preretirement planning is prevention, maintenance and control of disease with the concept of individuals having control over their health status.

In an essay by Reich (1977) it was mentioned that a study done by O'Meara in 1973, identified health as the second major subject covered by preretirement education, and that the topic was usually divided into mental and
physical health. The Action for Independent Maturity (AIM) Preretirement Program was described in the essay and the author noted that the program utilized a health questionnaire and case study approach to present health issues such as physical checkups, personal habits, risk factors and chest pain. The AIM program presented mental health in relation to attitude and role adjustment. Another program presented by two major unions approached the health issue, including topics dealing with life expectancy, sensory loss, CNS function, nutrition, exercise and the importance of mental health.

Parsons (1978) reported that health aspects should also include accidents, alcohol, common diseases, foot care and spiritual health along with the basic care component of exercise and nutrition. White (1978) explained that retirees should be warned of the "eggs in one basket" syndrome; health should include along with the basic core components: the early diagnosis of cancer, safety, travel, and medications. Diekelman (1978) included sexuality in her format. Estes’ (1978) emphasized the concept of individuality related to physical change and aging, concentrating on the process of aging and mental health in retirement.
The Impact and Evaluation of Health in Preretirement Programs

Preretirement planning has a very positive effect on the future. It has a positive effect on the adjustment process, weakens resistance to retirement and contributes to better morale and job related attitudes during the last years of employment before retirement (Greene et al., 1969). Participants of Preretirement Programs have increased knowledge of retirement, feel better prepared for retirement and have less uncertainty about the future (Glasmer and De Jong, 1975). In regard to health, employees who have participated in Preretirement Programs seemed to report their health as being slightly better than persons who have not participated in Preretirement Programs; health was found to be an extremely important factor in perceived adjustment and retirees who were involved with Preretirement Programs reported that after retirement they found their health to be better than expected (Greene et al., 1969). Through the Greene et al. study of employees from eight major companies, it was also found that there was a significant positive relationship between retirement adjustment or resistance and perceived health status. Palmore (1977:2) evaluated the Preretirement Programs given by Duke University during 1974-77. The sample consisted of 100 employees and the purpose was to evaluate if Preretirement Programs affected
the adjustment process which was defined as "an adaptation which results in good health, personal satisfaction, social integration, and active and productive leisure." Palmore evaluated health status using the "Self-Rating Health Scale" and "Psychosomatic Symptoms Scale". It was found that there was a significant increase in the health ratings of the program group following the Preretirement Program but a slight decrease in the health rating for the control group. Without the Preretirement Program there were no significant changes in the psychosomatic symptoms scales for either group. Overall the results suggested that the group participating in the Preretirement Program had significantly better adjustment than those who did not participate in the program.

Uman (1979) developed and presented the health workshop of a Preretirement Program given to 50 employees. The workshop included information on the aging process, positive health behaviors and stress concepts. Evaluation of the workshop was implemented by the use of the "Health Information Questionnaire", which included perceived attitudes and knowledge of health. Also utilized was Palmore's "Facts on Aging Quiz". Both instruments were administered before and after the workshop.

The data indicated that health education intervention was associated with some changes, suggesting
improvement in perceived knowledge of health, attitudes about health in old age and control over health. Uman also gave the participants a list of 14 behaviors identified as major risk factors of disease. After the health workshop, it was noted that the participants listed an average of four behaviors they would like to improve upon, suggesting that a positive change in the importance of health as a retirement concern occurred with the participation in the health workshop.
CHAPTER III

RESEARCH METHODOLOGY

This study explored the effectiveness of preretirement health education in relation to perceived health outlook and priority of health as a retirement concern. This chapter describes the research design, the sample, data collection method and protocols, reliability and validity of the instruments and the data analysis for the study.

Research Design

This was a quasi-experimental study which explored the effect of preretirement health education on health perception and the importance of health in retirement.

In this study the participants were requested to complete the Health Perceptions Questionnaire (HPQ) and the Rank Order of Retirement Needs (RORN) instrument at the commencement and close of the Preretirement Seminar. Copies of the instruments appear in Appendices B and C respectively. The "Planning for a Healthy Retirement" component of the Preretirement Seminar was presented at the midpoint of the program. In addition, the participants were asked to provide demographic information relating to age, sex, employee and employment status, along with the number of years.
to retirement. The subjects profile form appears in Appendix D.

The Sample

This study was conducted at a large production industry in an urban southwestern community. The population of the industry was comprised of over 4,000 employees in professional and nonprofessional capacities. The industry's Preretirement Seminar was developed and coordinated by the Personnel Development Representative and had been in operation for over one year. The two-day seminar had been given to approximately 1,100 persons.

The design of the program included twelve 45-minute components offered on two consecutive days. Employees over the age of fifty were invited to attend the seminar and were encouraged to bring a significant other. Participation was voluntary. Participants employed by the industry received their regular salary for the first day (Friday) but were not given any compensation for the second day (Saturday morning). Attendance of all or part of the 12-hour seminar was an individual decision. Participants were given a prepared booklet on retirement information to be used as a reference source after the seminar.

The target population included participants of the Preretirement Seminar who met the following criteria:
1. They must currently hold an occupational or homemaker role.
2. They must not have had any formal preretirement education prior to the seminar.
3. They must attend both days of the seminar.
4. They must attend the component "Planning for a Healthy Retirement".

A convenience sample was used in this study. All participants for the study were asked to participate by completing the data collection tools. Thirty employees and 14 significant others met the criteria. All chose to participate in the study. The sample included 44 subjects.

**Data Collection Method and Protocols**

The instruments were offered at the commencement and close of the seminar. The agenda of the seminar appears in Appendix E. The "Planning for a Healthy Retirement" component was given over a 45-minute time period at the midpoint of the program. The methods for data collection and protocols were identical for the administration of the pretest and posttest.

All participants were approached essentially in the same manner. Prior to administering each test, the investigator explained that she was conducting a study regarding the effectiveness of preretirement health education on
health perception and priority of health in retirement. The participants were told they could assist by completing two questionnaires on their attitudes about health and retirement. In addition, they were told that participation was voluntary, they could answer all or part of the questions and they were free to withdraw from the study at any time. The disclaimer accompanying the questionnaire was read to them and their willingness to complete the questionnaire assumed consent for participation in the study. The disclaimer appears in Appendix F. Subjects were told that strict confidentiality and anonymity would be enforced. Participants were instructed not to put their names on the questionnaire. A number was placed on the questionnaire for the purpose of evaluating the pretest and posttest scores. The participants were informed that the number would not be used for identification, but for comparative purposes only. If the participants requested assistance the investigator was available for clarification.

The study was approved by the Human Subjects Committee of the University of Arizona. A copy of the approval appears in Appendix G. Permission was also obtained from the appropriate persons in the industry where the study was conducted. Lastly, Ware gave written permission for the use of his questionnaire and a copy of the letter appears in Appendix H.
Reliability and Validity of the Instruments

The "Planning for a Healthy Retirement" seminar was evaluated by the Health Perceptions Questionnaire and Rank Order of Retirement Needs. Additionally, personal and demographic data such as age, sex, employment status and intent to retire was obtained in an attempt to relate personal variables to attitudes concerning health and retirement.

Health Perceptions Questionnaire (HPQ)

The HPQ, an instrument designed to determine health and illness perceptions of different populations, was developed by Ware (U.S. Dept. HEW Publ. No. 78-53, 1976 pg. 158-161). The instrument was designed to assess "one kind of overall health status" and to "reflect the objective information people have about their health status." (Ware, 1978: V). Ware (1976) indicated that the device should be utilized in research studies to compare groups or specific populations rather than to diagnose individuals. The survey was intended to measure perceived health; "the conceptual orientation is toward general health ratings and personal assessment as opposed to specific components of health ..." (Ware, 1978:16). It was for these reasons that this instrument was selected to evaluate the "Planning for a
Healthy Retirement" for assessing a positive change in perceived health status.

The HPQ scale is a 32 item self-administered questionnaire. It is multidimensional in that six perceptions are considered, including current health, prior health, health outlook, health worry/concern, resistance-susceptibility and rejection of sick role. The questionnaire is comprised of general health/illness statements that were developed to determine subjective and objective information regarding health perceptions. The responses to the statements are based on a Likert-type ordinal scale. The response categories include Definitely True, Mostly True, Don't Know, Mostly False, and Definitely False. Criteria for a summated scale such as a Likert-type scale include a response to each item indicating degrees of agreement or favorableness (Selltiz, 1976:417). The HPQ scale is a summated scale; it necessitates a response to each item, however the responses indicate the respondent's perceptions of degrees of falseness rather than degrees of agreement as utilized in many Likert-type scales.

The HPQ scale has been extensively tested for reliability and validity. The instrument was tested on over 2000 respondents during five field tests. Through these studies it was found that the HPQ showed a satisfactory homogeneity coefficient. The results indicated that the
items assigned to the same scale were a reliable measure of the same construct; specifically the category "Health Outlook" showed a median coefficient of 0.43 and all other homogeneity coefficients were greater than 0.30 (Ware, 1978).

Internal consistency reliability for HPQ was estimated in the field tests and it was found that internal-consistency reliability coefficients for "Health Outlook" ranged from 0.64 to 0.79. Ware (1976:10) stated that "scale scores were sufficiently reliable for purpose of group comparisons (i.e. 0.50 or greater)." The test-retest reliability coefficients for "Health Outlook" were found to range from 0.54 to 0.76. Ware reported the findings that test-retest coefficients tended to be lower than internal consistency coefficients, supporting the validity hypothesis that the scale measures perceptions regarding health at the time of the interview." (Ware, 1976:42).

Factor-analytic studies of the construct validity of the HPQ reported by Ware indicated that the health scales "tended to cluster much as hypothesized and that they overlapped very little with patient role propensity ... each scale contributed some unique information about health perceptions ... (and that the) scores could be interpreted straightforwardly" (Ware, 1978:59). Correlations among the six HPQ health scales were analyzed during four field
studies; "Health Outlook" was found to show correlations 0.75, 0.73, 0.80, and 0.84 indicating high construct validity (Ware, 1978). Additionally, it was found that favorable health perceptions were related to psychological well-being. Ware (1978) concluded that the score constituted substantial support for the validity of HPQ scales as general measures of health.

The researcher made only a minute modification of the HPQ. For all statements relating to "Health Outlook" the word "future" was deleted and the word "retirement" was added in its place. This was done to comply with the intent of discovering retirement attitudes and perceptions. It was not believed that this modification would interfere with the established reliability and validity of the instrument. It was also felt that although the hypotheses of the thesis relate to health outlook, it would be beneficial to administer the entire questionnaire to the population in order to develop a multidimensional approach concerning health perception and retirement.

**Rank Order of Retirement Needs (RORN)**

The RORN is an ordinal scale designed to determine the priority of retirement concerns. The respondents were asked to rank order their responses along a continuum from the most to the least important. Polit and Hungler (1978:
344-45) stated that "it is best not to have more than seven to ten alternatives in a rank order question ... (and) the researcher should bear in mind the participants' educational background ... ."

Boyack (1981) utilized a similar tool developed by the American Association of Retired Persons. The instrument developed, "Rank Order of Retirement Problems", was incorporated in her lecture on retirement planning. No reliability or validity coefficients are available, however, it was noted to be a simple tool and "quite useful" (Polit and Hungler, 1978:344).

The constructs involved in the RORN were obtained from the review of the literature on components of Preretirement Programs. The eight constructs listed are: Housing and Living Arrangements; Social Security Benefits; Leisure Time Activities; Retired Time Activities; Financial Planning; Health Needs; Legal Aspects; and Pensions. The items were listed by the number of letters in the construct to eliminate any biases in selection.

**Data Analysis**

The pretest and posttest scores of the HPQ and RORN scale were analyzed to assess change in the participants' perceptions of their health outlook and priority of health as a retirement concern, which resulted from the
presentation of the "Planning for a Healthy Retirement" component of the Preretirement Seminar.

Since the HPQ tool was in the form of a Likert scale, the pretest and posttest scores were each summed and then separate overall means were obtained. Pretest and posttest mean scores were also calculated for the subscales Health Outlook and Current Health. Appendix I includes the scoring method for the HPQ instruments and its subscales.

The pretest and posttest scores of the ordinal scale RORN were displayed by frequency of distribution. The item "Health" as a retirement concern was further analyzed for the mean of its position on the scale.

Participants were placed in three separate subgroups according to the variables employee status, age and sex.

The paired t-test was used to determine whether any significant differences in mean scores existed between the pretest and posttest scores of the HPQ and RORN instruments. The test was also performed on the three subgroups in relation to the subscales HPQ-Health Outlook and RORN-Health; this test was utilized to investigate the null hypotheses and research questions. The .05 level of significance was used as a decision criteria for the test.
The pooled t-test was used to establish whether any significant differences existed within the subgroups. The means of the pretest and posttest scores of the HPQ-Health Outlook and RORN-Health were analyzed according to subgroup; this test was performed to determine extraneous sources of variation within the subgroups themselves. The .05 level of significance was used as a decision criterion for the test.

Additionally, a pooled t-test was performed on the three subgroups concerning their perceived current health status. The pretest mean scores of the HPQ-Current Health subscale were analyzed for the three subgroups. This test was performed to establish the perceived current health status of the group and to determine any variations of current health within the three subgroups. As with the other tests, the .05 level of significance was used as a decision criterion.

The simple t-test is used to test hypotheses about the mean of a single sample. The pooled t-test is a statistic used to compare the means of two test scores for the chance probability of a difference between the means of two small samples. The paired t-test is a statistic used to compare the means of "paired" groups for the chance probability of a difference between the means of the tests. The
purpose of pairing is to eliminate the effects of extraneous sources of variability in the data, thus leading to a more precise comparison of the sample (Knapp, 1978).
CHAPTER IV

PRESENTATION OF THE DATA

This chapter presents a profile of the subjects in the sample who participated in the study, and statistical analysis of the data related to: the reliability of the instrument, current health scores, overall results and findings related to the null hypotheses and research questions.

Profile of the Subjects

Of the 48 persons who attended the Preretirement Seminar, 44 were selected for the sample. Three persons participated in the pretest, however failed to complete the posttest. Additionally, one male declared a retired status. Therefore, four persons failed to meet the established criteria and were excluded from the study. Of the 44 persons in the sample, 22 were male and 22 were female. The mean age of the group was 53.4 with ages ranging between 42 and 65 years. There were 30 persons employed by the industry and there were 14 significant others; all significant others were spouses of the employees. Full-time status was reported by 34 persons, part-time status by one person, homemaker status by nine persons, and retired
status by one individual. Participants anticipated a mean of 8.45 years to retirement with a range of six months to 20 years. The majority of the participants were Caucasian; seven percent were Black, and seven percent were Mexican American. The racial distribution of the sample was consistent with the geographic population. The sample was composed of professional and nonprofessional workers, and none of the participants reported prior preretirement education.

Each participant was placed into three subgroups according to employee status, age and sex. Age was subdivided into two categories: greater than 57 years and less than 57 years. Fifty-seven was the mode age score of the participants 53 to 65 years of age, which represented the older subjects.

Reliability of the Instruments

The HPQ and RORN scale were utilized to assess change in the participants' perception of health in retirement along with the importance of health as a retirement concern. Reliability testing for interval consistency was done by the use of the alpha coefficient. Item to item correlation analysis was calculated for each subscale. Items scoring approximately .30 to .70 were said to
correlate (Polit and Hungler, 1978). Table 1 illustrates the reliability coefficients for the HPQ and RORN scale.

**TABLE 1**

Reliability Coefficients for the Measurement Instruments HPQ, RORN and the HPQ Subscales

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Number of items</th>
<th>Alpha coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPQ + RORN</td>
<td>40</td>
<td>.442</td>
</tr>
<tr>
<td>HPQ Subscales</td>
<td>32</td>
<td>.628</td>
</tr>
<tr>
<td>Current Health</td>
<td>9</td>
<td>.781</td>
</tr>
<tr>
<td>Health Outlook</td>
<td>4</td>
<td>.407</td>
</tr>
<tr>
<td>Health Worry/Concern</td>
<td>4</td>
<td>.211</td>
</tr>
<tr>
<td>Rejection of Sick Role</td>
<td>4</td>
<td>.207</td>
</tr>
<tr>
<td>Resistance Susceptibility</td>
<td>4</td>
<td>.118</td>
</tr>
<tr>
<td>Prior Health</td>
<td>3</td>
<td>*</td>
</tr>
<tr>
<td>Sickness Orientation</td>
<td>2</td>
<td>*</td>
</tr>
<tr>
<td>Attitude Toward Going to the Doctor</td>
<td>2</td>
<td>*</td>
</tr>
</tbody>
</table>

* Number insufficient for computation.

The reliability for both instruments was .442. The HPQ instrument, comprised of 32 items and eight subscales, showed an overall reliability score of .628. The eight subscales of the HPQ instrument exhibited the following reliability coefficients: Current Health (nine items) was
.781; Health Outlook (four items) was .407; Health Worry/Concern (four items) was .211; Rejection of Sick Role (four items) was .207; and Resistance Susceptibility (four items) was .118. The reliability of the subscales Prior Health, Sickness Orientation and Attitude Toward Going to the Doctor could not be determined due to the smallness of their scales.

A reliability coefficient was not computed for the RORN scale due to the design of the study and the nature of the instrument.

Findings Related to Current Health

Data analysis of current health scores was performed to establish homogenenity between the subgroups, thereby eliminating error due to disparities of perceived current health among the sample.

Current Health, a nine item subscale of the HPQ, was designed to assess subjective health status which is found to bear significance on objective health status (Ware, 1978). A score of 45 indicates excellent health status, with lower scores suggesting a lesser degree of current wellness (Ware, 1978). Table 2 illustrates the comparative current health pretest scores according to subgroups.

The subgroups employee status and sex showed no significant differences in current health scores. However,
TABLE 2
Comparative Current Health Pretest Scores of the Subgroups: Employee Status, Age and Sex

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Pooled t-Value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>30</td>
<td>36.33</td>
<td>6.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant Others</td>
<td>14</td>
<td>36.31</td>
<td>6.75</td>
<td>-.01</td>
<td>.991</td>
</tr>
<tr>
<td>Over 57 years of age</td>
<td>11</td>
<td>32.73</td>
<td>7.63</td>
<td>2.25*</td>
<td>.030</td>
</tr>
<tr>
<td>Under 57 years of age</td>
<td>33</td>
<td>37.39</td>
<td>5.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>22</td>
<td>37.52</td>
<td>5.19</td>
<td>1.47</td>
<td>.151</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>37.76</td>
<td>6.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

The subgroup age exhibited some differences in their mean scores. Participants older than 57 years of age expressed a mean score of 32.73 with a standard deviation of 7.63, while subjects younger than 57 years of age expressed a mean score of 37.39 with a standard deviation of 5.34. The pooled t-test revealed a t-value of 2.25 at the .03 level of significance. Ware (1978) reported that Current Health scores tended to decrease significantly with age, therefore, supporting this phenomenon.
Overall Results of the Study

The HPQ and RORN scale were administered before and after the Preretirement Seminar. "Planning for a Healthy Retirement" was given at the midpoint of the program. Tables 3 and 4 show the raw data and comparative analysis of the pretest and posttest scores respectively.

The HPQ measures past, present and future subjective health status; the maximum score obtainable is 160 (Ware, 1978). A high score indicates a positive health perception while a low score suggests a less positive perception of wellness. Results for the group showed a pretest mean of 120.27 with a range of scores from 96 to 141. The posttest scores showed a mean of 120.18 with a range of scores between 80 and 140. A paired t-test was computed for the two means resulting in a t-value of .07 with a significance level of .942. No significant differences were found in the pretest and posttest scores of the group as a whole.

Health Outlook, a four item subscale of the HPQ, measures future health orientation, specifically in retirement. The maximum score obtainable is 20, which indicates a positive health perception of health in retirement (Ware, 1978). Results of the group revealed a pretest mean score of 16.18 with scores ranging between nine and 20. The posttest mean score was 16.61 with scores ranging between
TABLE 3

Pretest and Posttest Raw Scores of HPQ, Health Outlook and RORN "Health" Subscales for the Sample

<table>
<thead>
<tr>
<th>Scale</th>
<th>N</th>
<th>Pretest</th>
<th></th>
<th></th>
<th>Posttest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Range</td>
<td>Std</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>HPQ</td>
<td>44</td>
<td>120.27</td>
<td>96-141</td>
<td>11.85</td>
<td>120.18</td>
<td>80-140</td>
</tr>
<tr>
<td>Health Outlook</td>
<td>44</td>
<td>16.18</td>
<td>10-20</td>
<td>2.89</td>
<td>16.61</td>
<td>9-20</td>
</tr>
<tr>
<td>RORN- &quot;Health&quot;</td>
<td>30</td>
<td>3.40</td>
<td>1-7</td>
<td>1.69</td>
<td>3.20</td>
<td>1-7</td>
</tr>
</tbody>
</table>

TABLE 4

Comparative Analyses of the Pretest and Posttest Scores by the HPQ, Health Outlook and RORN "Health" Subscales for the Sample

<table>
<thead>
<tr>
<th>Scale/ Test</th>
<th>N</th>
<th>Mean</th>
<th>Std</th>
<th>Paired t-value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPQ</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pretest</td>
<td></td>
<td>120.27</td>
<td>11.85</td>
<td>&gt;</td>
<td>.07</td>
</tr>
<tr>
<td>posttest</td>
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<td>120.18</td>
<td>13.64</td>
<td></td>
<td>.942</td>
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<tr>
<td>Health Outlook</td>
<td>44</td>
<td></td>
<td></td>
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<tr>
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<td>16.18</td>
<td>2.89</td>
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<td>-1.12</td>
</tr>
<tr>
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<td></td>
<td>16.61</td>
<td>2.86</td>
<td></td>
<td>.267</td>
</tr>
<tr>
<td>RORN &quot;Health&quot;</td>
<td>30</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pretest</td>
<td></td>
<td>3.40</td>
<td>1.69</td>
<td>&gt;</td>
<td>1.00</td>
</tr>
<tr>
<td>posttest</td>
<td></td>
<td>3.20</td>
<td>1.67</td>
<td></td>
<td>.326</td>
</tr>
</tbody>
</table>
nine and 20. A paired t-test was computed on the means offering a t-value of -1.12 at a significance level of .267. Again, no significant difference was found in the pretest and posttest scores of the group.

HORN, an ordinal scale, was designed to assess the priority of health in relation to seven other retirement needs. The rank order number one was given the highest priority, whereas, the rank eight was given the least priority. Results for the group showed that "Health" was ranked among the first seven choices in the pretest, showing a mean rank score of 3.4. The posttest scores revealed a mean of 3.2 with scores ranging between one and seven. A paired t-test revealed a t-value of 1.0 at the .326 level of significance.

A frequency distribution provided percentage analyses on the group's rank order of "Health". The results appear in Table 5.

The results indicated that "Health" was ranked among the first four choices at least two-thirds of the time in the pretest and about three-quarters of the time in the posttest. Participants over the age of 57 years gave health the highest priority, ranking it within the top one-half 100% of the time in both tests.
### TABLE 5

Rank Order Percentages Listing Health as a Retirement Concern in the Pretest and Post-test by the Sample and Subgroups: Employee Status, Age and Sex.

<table>
<thead>
<tr>
<th>Sample Test</th>
<th>N</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
<th>4%</th>
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<tr>
<td>Overall pre</td>
<td>44</td>
<td>9.7</td>
<td>38.7</td>
<td>51.6</td>
<td>74.2</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>22.6</td>
<td>38.7</td>
<td>58.1</td>
<td>80.6</td>
</tr>
<tr>
<td>Employee pre</td>
<td>19</td>
<td>5.0</td>
<td>35.0</td>
<td>45.0</td>
<td>75.0</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>25.0</td>
<td>40.0</td>
<td>60.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Significant Other pre</td>
<td>11</td>
<td>18.2</td>
<td>45.5</td>
<td>63.6</td>
<td>72.7</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>18.2</td>
<td>36.4</td>
<td>54.5</td>
<td>81.8</td>
</tr>
<tr>
<td>&gt; 57 years of age pre</td>
<td>6</td>
<td>14.3</td>
<td>57.1</td>
<td>71.4</td>
<td>100.0</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>33.3</td>
<td>66.7</td>
<td>83.3</td>
<td>100.0</td>
</tr>
<tr>
<td>&lt; 57 years of age pre</td>
<td>24</td>
<td>8.3</td>
<td>33.3</td>
<td>45.8</td>
<td>66.7</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>20.0</td>
<td>32.0</td>
<td>52.0</td>
<td>76.0</td>
</tr>
<tr>
<td>Male pre</td>
<td>15</td>
<td>13.3</td>
<td>40.0</td>
<td>60.0</td>
<td>80.0</td>
</tr>
<tr>
<td>post</td>
<td></td>
<td>20.0</td>
<td>33.0</td>
<td>60.0</td>
<td>80.0</td>
</tr>
<tr>
<td>Female pre</td>
<td>15</td>
<td>6.3</td>
<td>37.0</td>
<td>62.0</td>
<td>68.0</td>
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<tr>
<td>post</td>
<td></td>
<td>25.0</td>
<td>43.8</td>
<td>56.3</td>
<td>81.3</td>
</tr>
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</table>
Findings Related to the Null Hypotheses

1. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on the employees' perception of their health outlook.

Results indicated that there was no change in the employees' perception of their health outlook after the presentation "Planning for a Healthy Retirement". Tables 6 and 7 illustrate the raw data scores and comparison of pretest and posttest scores respectively.

The data revealed a pretest mean score of 16.30 with a range in the scores between 10 and 20. The posttest mean score was 16.70 with a range between 10 and 20. A paired t-test showed a t-value of -.86 at the .398 significance level. Therefore, null hypothesis 1 could not be rejected.

2. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on significant others' perception of their health outlook.

Results showed that there was no change in the significant others' perception of their health outlook in retirement after the presentation of "Planning for a Healthy Retirement". Results appear in Tables 6 and 7.
TABLE 6

Employees and Significant Others Pretest and Posttest Raw Scores of the HPQ, Health Outlook and RORN-Health Subscales.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Tests</th>
<th>Employees</th>
<th></th>
<th></th>
<th></th>
<th>Significant Others</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Range</td>
<td>Std Dev</td>
<td>N</td>
<td>Mean</td>
<td>Range</td>
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<td>120.53</td>
<td>96-140</td>
<td>11.28</td>
<td>14</td>
<td>119.69</td>
<td>98-140</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td></td>
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<td>96-141</td>
<td>11.65</td>
<td></td>
<td>120.78</td>
<td>80-139</td>
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<td>16.30</td>
<td>10-20</td>
<td>2.93</td>
<td>14</td>
<td>16.15</td>
<td>10-20</td>
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<td></td>
<td>posttest</td>
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<td>10-20</td>
<td>2.76</td>
<td></td>
<td>16.62</td>
<td>9-20</td>
</tr>
<tr>
<td>RORN Health</td>
<td>pretest</td>
<td>19</td>
<td>3.58</td>
<td>1-7</td>
<td>1.71</td>
<td>11</td>
<td>3.09</td>
<td>1-6</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td></td>
<td>3.16</td>
<td>1-6</td>
<td>1.64</td>
<td></td>
<td>3.27</td>
<td>1-7</td>
</tr>
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</table>
TABLE 7

Employees and Significant Others Comparative Pretest and Posttest Scores by the HPQ, Health Outlook and RORN Health Subscales.

<table>
<thead>
<tr>
<th>Scales/Tests</th>
<th>Employees</th>
<th></th>
<th></th>
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<th>Significant Others</th>
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<tr>
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<td>std</td>
<td>t-value</td>
<td>L of S</td>
<td>mean</td>
<td>std</td>
<td>t-value</td>
<td>L of S</td>
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<tr>
<td></td>
<td>N</td>
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<td>dev</td>
<td></td>
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<td>dev</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>pretest</td>
<td>30</td>
<td>120.53</td>
<td>11.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>posttest</td>
<td>120.67</td>
<td>11.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.09</td>
<td>.927</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
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<td>2.93</td>
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<tr>
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<td>.398</td>
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</tr>
<tr>
<td>pretest</td>
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<td></td>
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</tr>
<tr>
<td>posttest</td>
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<td>.072</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data revealed a pretest mean score of 16.15 with scores ranging between nine and 20. The posttest mean score was 16.62 with scores ranging between nine and 20. A paired t-test produced a t-value of -.61 at the .553 level of significance. Therefore, null hypothesis 2 could not be rejected.

3. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on the employees' importance of health as a retirement concern.
Results suggested that there was no change in the employees' rank order of health as a retirement concern after the presentation of "Planning for a Healthy Retirement". Results appear in Tables 6 and 7.

Results showed a pretest mean score of 3.58 with scores ranging between one and seven. The posttest scores indicated a mean of 3.16 with a range of scores between one and six. A paired t-test revealed a t-value of 1.91 at the .072 level of significance. Therefore, null hypothesis 3 could not be rejected.

4. The "Planning for a Healthy Retirement" component of the Preretirement Seminar will have no effect on the significant others' importance of health as a retirement concern.

Results indicated that there was no change in the significant others' rank order of health as a retirement concern after the presentation of "Planning for a Healthy Retirement". Results appear in Tables 6 and 7.

Results showed a pretest mean score of 3.09 with scores ranging between one and six. The posttest mean score was 3.27 with scores ranging between one and seven. A paired t-test revealed a t-value of -.48 at the .640 significance level. Therefore, null hypothesis 4 could not be rejected.
Findings Related to the Research Questions

1. Does age influence the effect of "Planning for a Healthy Retirement" on participant's health perception and priority of health in retirement?

The results suggested that the age of the participants did not influence the effect of "Planning for a Healthy Retirement" on their health perception or priority of health in retirement. Comparative analysis of the pretest and posttest mean scores of the HPQ-Health Outlook and RORN "Health" subscales appears in Table 8.

There were no significant differences between the pretest and posttest mean scores of the subscales for persons older than or less than 57 years of age. Paired t-tests suggested that the differences found between the mean scores were not significant at the .05 level. Therefore, the age of the participants appeared to bear no significance on the effectiveness of "Planning for a Healthy Retirement".

2. Does sex influence the effect of "Planning for a Healthy Retirement" on participants' health perception and priority of health in retirement?

The results suggested that the sex of the participants did not influence the effect of "Planning for a
<table>
<thead>
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<th>Scale Test</th>
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<th>Female</th>
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<tr>
<td></td>
<td>mean</td>
<td>std dev</td>
<td>N</td>
<td>mean</td>
</tr>
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<td>11</td>
<td>122.94</td>
</tr>
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</tr>
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<td>16.33</td>
</tr>
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</tr>
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<td>1.03</td>
<td>6</td>
<td>3.67</td>
</tr>
<tr>
<td>RORN-Health posttest</td>
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<td>1.17</td>
<td>24</td>
<td>3.36</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
Healthy Retirement" on their health perception and priority of health in retirement. Comparative analyses of the pretest and posttest scores of the HPQ-Health Outlook and RORN-Health according to sex appears in Table 8.

There were no significant differences between the pretest and posttest mean scores of either subscale for men or women. Paired t-tests suggested that the differences between the mean scores were not significant at the .05 level of significance. Therefore, sex of the participant appeared to offer no influence on the effectiveness of preretirement health education.

To conclude, the null hypotheses could not be rejected, nor was it found that the age or sex of the participant influenced the effect of preretirement health education on health perception or priority of health as a retirement concern. The data suggested that the differences between the pretest and posttest mean scores leaned in a favorable direction, however, it was not significant at the .05 level.
CHAPTER V

DISCUSSION AND SUMMARY

This chapter provides interpretation of the data along with implications related to the research findings. Chapter V includes: findings related to the conceptual framework and review of the literature, limitations of the study, implications for nursing, recommendation for further research and a summary of the study.

Findings Related to the Conceptual Framework

The results of the data showed no significant change (at the .05 level of significance) between the pre-test and posttest HPQ and RORN mean scores among the subgroups: age, sex and employee status. The data suggested that there was no significant change in the participants' perception of health in retirement or their priority of health as a retirement concern after the presentation "Planning for a Healthy Retirement" component of the Pre-retirement Seminar. The nonsignificant findings suggested a lack of evidence to support a positive change in attitudes, therefore, the null hypotheses could not be rejected.
Additionally, that data indicated that age and sex bore no relation on the effectiveness of preretirement health education.

The emphasis of the Preretirement Seminar was planning for retirement. The purpose of this study was to evaluate the effectiveness of preretirement health planning education on attitudes related to health in retirement. The process of planning requires various steps over an extended period of time to accomplish objectives and realize the intended goal. Additionally, the assessment of attitude change presents a difficult challenge for the researcher. Therefore, it was suggested that a change in health perception and priority of health in retirement may not have been able to be detected within the brief time frame of this study.

The continuity theory is based upon the premise that if a worker, at any early age, establishes personal habits, associations and activities conducive to a healthful life style, and can maintain them throughout the life span, then the process of retirement will lead to positive adaptation to the role of the retiree (Atchley, 1980). The mean age for the group was 53.4 years with an age range of 40 to 65 years, indicating a relatively "young" group of employees and significant others. The data showed no significant (at the .05 level) differences between the
HPQ-Health Outlook and RORN "Health" pretest and posttest mean scores for employees and significant others. Although, it appeared possible that preretirement health education could effect future health perceptions, especially for the younger group; however, this attitude change would be more likely to be assessed in later years.

Ware (1978) reported that there appeared to be a relationship between perception of individuals' current state of health and their health outlook. If an individual perceived his health to be satisfactory, then he was likely to perceive his future health as being satisfactory also. Data analysis appeared to support this phenomenon. The sample's HPQ-Current Health pretest mean score was 35.5 with a standard deviation of 5.64. The samples' HPQ-Health Outlook pretest score showed a mean of 16.18 with a standard deviation of 2.89. Both subscale mean scores suggested a high degree of perceived wellness. Ware (1978) conducted a series of studies in 1976 on four separate groups of well persons. The HPQ scale was given to the four groups (N=183). Resulting scores showed a Current Health mean score of 31.51 with a standard deviation of 8.01 and a Health Outlook mean score of 13.70 with a standard deviation of 2.60. By comparing the raw data of Ware's group and the research sample of preretirees, it
was found that the preretirees showed a higher level of perceived wellness than the group in Ware's study.

No significant differences were found between the HPQ-Health Outlook pretest and posttest means scores of the employees or significant others. It could be concluded that because the participants exhibited higher positive current and future health perceptions, it was unlikely that their perceptions would be altered significantly after the "Planning for a Healthy Retirement" component of the Preretirement Seminar.

Findings Related to the Review of the Literature

Data analysis between the pretest and posttest mean scores of the HPQ-Health Outlook subscale revealed no significant differences for employees and significant others. The employees showed a pretest mean score of 16.30 and a posttest mean score of 16.70. A paired t-test revealed a t-value of -.86 at the .398 significance level. Significant others showed a pretest mean score of 16.15 and a posttest mean score of 16.61. A paired t-test revealed a t-value of -.61 at the .553 level of significance.

Palmore (1977) conducted a similar study to evaluate the effectiveness of preretirement planning education using an experimental design. Pretests and posttests were given to 33 subjects who had retired within one year after
participants in the Duke University Preretirement Seminar.

The participants were matched by age and education with an equal number of control subjects who had not had preretirement planning education. The **Self Rating Health Scale** was given to both groups. Data analysis revealed a mean score change of +.4 at the .07 significance level for the program group. The control group showed a -.3 mean change at a nonsignificant level. Palmore reported a significant increase in the health ratings of the program group following retirement, but a slight decrease in health rating scores for the control group.

The Palmore study utilized an experimental design incorporating a one year follow-up period for testing. It was felt that the design of Palmore's study greatly contributed to the results achieved which supported the positive relationship between preretirement planning education and perceived health status in retirement. Therefore, it was proposed that if follow-up testing was conducted on the employees and significant others, differences in mean scores significant at the .05 level may be achieved, thereby resulting in a positive effect of the presentation of "Planning for a Healthy Retirement" on participants' health perception and priority of health in retirement.
Data analysis between the pretest and posttest mean scores of RORN "Health" suggested that there were no significant changes in employees' or significant others' priority of health as a retirement concern after the presentation of "Planning for a Healthy Retirement." However, a trend was noted. The employees showed a pretest mean score of 3.58 and a posttest mean score of 3.16. The differences between these scores produced a t-value of 1.91 at the .072 level of significance, thereby suggesting a trend in employees' participation in "Planning for a Healthy Retirement" resulting in a greater priority of health as a retirement concern. This positive trend supported Uman's (1979) study of the effect of preretirement education on attitudes and knowledge of health (N=50), which suggested that a positive change in the importance of health as a retirement concern occurred with the participation in the pre-retirement seminar.

Limitations of the Study

The design was limited to the seminar format established by the industry where the study was conducted. Tiberi and Boyack (1978) reported that a facilitated inter-actional model, which fosters group interaction, was the most effective in producing short-term behavioral, cognitive and attitudinal change. Also retirement planning
should be done in stages (Conklin, 1973; Kasschau, 1974), so that positive attitudes and relevant information can be reinforced over a period of time. This study was restricted in that only 45 minutes was allowed for the presentation "Planning for a Healthy Retirement", thereby limiting the model to incorporate a didactic approach; additionally, the time frame of the seminar (2 days) along with a relatively short period of time allowed for the completion of the research project prevented follow-up testing (in years) to be included in the design of the study. It was felt that these restrictions may have provided sources of error effecting the outcome of the study.

It was assumed that the other components, dealing with health, would complement the "Planning for a Healthy Retirement" component, although their effects on the results of the study would not be known nor would be measured. It was felt, however, that topics, such as inflation, personal safety and insurance, may have biased the results of the study, thereby counteracting the positive effects of the preretirement health education. Determination of the effects of the other components could be achieved by the use of a comparison group who attended the seminar without "Planning for a Healthy Retirement", thereby eliminating this limitation to the study.
Because of the time interval between the pretest and the posttest, employees and significant others could have been influenced by events pertaining to health and retirement other than the event "Planning for a Healthy Retirement". Participants could have discussed their views on health with each other or could have been exposed to a health related media event during the time period in-between the tests. This phenomenon could have provided a threat to the internal validity of the study, however, due to the research design, this limitation was inevitable.

The selection of the participants may have also influenced the results of the study. The sample group may have been composed of very highly motivated persons and/or very optimistic, healthy individuals. As noted in the previous section, the health perception and outlook for the group appeared to be high. A random sample of participants would have eliminated the bias of a sample of interested volunteers. Also noted in the previous section, the use of a control group would have greatly contributed to the validity of the study, thereby providing a means for more thorough and objective evaluation of preretirement health education. The small sample size (N=44), the method of selection and the absence of a control group was felt to have added a threat to the external validity of the study. It was also felt that the sample and the method of sample
selection effected the generalizability of this study beyond this sample; for, the sample may not have been representative of employed workers.

The instruments HPQ and RORN may have added to the sources of error of the study. Table 1 illustrates the reliability coefficients for the two scales and subscales. The overall reliability of the scales showed an alpha coefficient of .442. This value was low for an established scale and is a barely acceptable coefficient for a new scale (Polit and Hungler, 1978). The HPQ reliability coefficient was .628 which was within the acceptable range of reliability scores for a new scale. Current Health and Health Outlook subscales produced the highest reliability coefficients which were .781 and .407 respectively. All other subscales failed to achieve a valid coefficient to establish reliability. It was felt that the selection of the instruments may have provided limitations to the study due to two reasons.

The primary concern involving the selection of the HPQ to measure the effectiveness of "Planning for a Healthy Retirement", was related to a response set bias which may have occurred with the administration of this instrument. Polit & Hungler (1978:43) explained: "a number of relatively enduring characteristics of the respondents can interfere with accurate measures of the target attribute." It was felt
that the instrument may not have been an appropriate tool to measure attitude change. Therefore, an instrument which measures cognitive knowledge may have been more useful in providing information to determine the effectiveness of preretirement health education.

The secondary concern dealt with the method of testing. Although it was assumed that the participants would answer truthfully, it is conceivable that the participants may have experienced boredom with completing the same test twice. Repetition of the instruments may have biased the results of the study. A pretest and posttest instrument which utilized a similar concept but different approach would have eliminated the source of error related to repetition of the instruments.

Additionally, it was noted in Chapter III that the reliability of RORN was not estimated due to the nature of the scale and design of the study, thereby providing an additional limitation to the study.

To conclude, it was found that there were many variables which may have provided sources of error to affect the outcome of the study. The four null hypotheses could not be rejected; it was believed that elements of the research design and the instruments utilized contributed to the limitations placed upon the research study.
Implications for Nursing

If further research supports that preretirement planning effects health perception and importance of health in the retirement years, the implications for nursing, particularly occupational health nursing, may be far reaching. The review of the literature has established that preretirement planning was needed in industry. Occupational health nurses have the opportunity to become involved in preparing employees for the retirement process. Occupational health nurses can have a positive influence on their clients' transition from the role of the worker to the role of the retiree, thus promoting positive adjustment to retirement. Because of the small sample size of this investigation, the implications were not generalizable beyond this sample; however, positive health perceptions and high priority of health in retirement could have a significant impact on gerontological health care.

Although the results of the study did not show significant changes in health perception and importance of health in retirement resulting from preretirement health education, three suggestions were made to assist nurses in providing preretirement education for their employees.

It is suggested that occupational health nurses first identify the needs of their employee population to determine the extent of planning needed to meet those
needs. Secondly, preretirement planning should begin early in the employee's career with periodic seminars to reinforce and update planning strategy and theory. Thirdly, nurses should develop research tools which assess the effectiveness of the health teaching, thereby providing a means for continuous evaluation and improvement. It was felt that these three steps concerning nursing research would greatly contribute to nursing theory in the area of preretirement planning.

**Recommendations for Further Research**

The investigator felt that the effect of preretirement health education should be further researched with a larger sample utilizing the following recommendations:

1. Nursing research should focus on identifying the health needs of various employee populations in relation to preretirement planning and develop health education models accordingly.

2. Nursing research should design instruments to evaluate health education in preretirement planning; evaluation would provide a method for assessment and intervention along with providing research knowledge for nursing theory.
3. The research design to test the effectiveness of preretirement health education should include four groups of subjects:
   a. Group 1 - employees who attend the entire preretirement program including the health component.
   b. Group 2 - employees who attend only the health component of the preretirement program.
   c. Group 3 - employees who attend the preretirement program without the health component.
   d. Group 4 - employees, selected as control subjects, who do not attend any preretirement programs.

4. The format of the preretirement program should be designed to include a facilitated interaction model provided at periodic intervals over an extended period of time.

5. The research design should incorporate periodic assessment of the four groups of subjects' objective and subjective status of health during the working and retirement years to determine the long-term effectiveness of preretirement health education.
6. The measurement tools HPQ and RORN should be further researched for reliability and validity; the instruments should be assessed for appropriateness as evaluation tools to determine the effectiveness of health education in retirement planning.

Summary

The purpose of the study was to determine the effectiveness of preretirement health education on employees' and significant others' health perception and importance of health in retirement. "Planning for a Healthy Retirement", a component of the Preretirement Seminar, was given to 48 employees and significant others; 44 subjects, who met the decision criteria, participated in the study. The instruments HPQ and RORN were administered to the subjects before and after "Planning for a Healthy Retirement".

Differences between the pretest and posttest mean scores of HPQ-Health Outlook and RORN-Health subscales suggested that the presentation of the "Planning for a Healthy Retirement" did not significantly effect the participants' health as a retirement concern. Additionally, there appeared to be no relationship between the variables, employee status, sex and age, and the effectiveness of preretirement health education. However, a trend was noted
among the employee group which suggested that the retirement health education may have had a positive influence on their importance of health in retirement.

It was noted that the design of study provide many possible limitations which effected the outcome of the study. It was also questioned whether the instruments HPQ and RORN were appropriate measurement tools to evaluate the effectiveness of preretirement health education. All four null hypotheses could not be rejected; it was recommended that nurses continue to explore the area of preretirement planning to provide research knowledge for nursing theory.
PLANNING FOR A HEALTHY RETIREMENT

I. Introduction

A. There has been considerable research in the field of Preretirement Planning.

1. The number of companies utilizing Preretirement programs has been increasing within the past 10 years.
   a. The programs are more comprehensive

2. Studies suggest that:
   a. There is a high correlation between life satisfaction in retirement and the extent of planning accomplished before that event.
   b. Health and financial status are the two greatest factors in the adjustment to retirement.

3. Preparing for a healthy retirement should start early in life.
   a. Good health practices should begin during the early years and be carried over through retirement.
   b. Persons over 65 have an 8 in 10 chance of remaining healthy in retirement.

4. Our goal is to help you understand the importance of health in relation to the aging process.
   a. Exercise
   b. Nutrition
   c. Personal habits
   d. Mental health
   e. Safety
5. Also we want to provide information on how and when to seek care from health related professionals before and after retirement.

II. Exercise

A. An eminent physician, commenting on the phenomenon of aging has said, "Most of us don't wear out, we rust out."

1. Retirement years can be rewarding if:
   a. You have energy and zest to use them well.

2. Remember, energy begets energy.

B. Exercise helps people feel better, look better, work better.

1. Circulatory system
   a. Increases cardiac output
      1. Delivers more blood and oxygen to organs
   b. Helps lungs expand more fully, increases pulmonary capacity
      1. Accepts more oxygen for body

2. Digestive system
   a. Helps stimulate gastric and intestinal activity.
      1. Prevents constipation
      2. Assists with weight reduction

3. Musculo-skeletal system
   a. Tones and strengthens muscle
   b. Improves posture
      1. May decrease back strain
   c. Keeps joints "well oiled".
4. Mental health
   a. Exercise provides an interesting activity
   b. Exercise provides a means to promote relaxation
   c. Exercise provides a means to reduce tension
   d. Exercise provides a means for social interaction

C. How to exercise
   1. Check with physician before starting program
   2. Always do warm ups
      a. Prevent strain on muscles and joints
   3. Always begin at a slow pace
      a. Gradual increase with time

D. Exercise and hot weather
   1. Exercise in morning or evening
   2. Replenish fluid supply
      a. Drink at least 2 quarts of water daily
      b. Carry water if water is not accessable
      c. Don't take salt tablets
         1. May cause damage to heart or kidney

E. Sleep and rest
   1. Sleep patterns may change with age
      a. Require less sleep with age
      b. Decrease in deep sleep
   2. Adults may need afternoon rest
   3. Medication for sleep may be needed if indicated by the Doctor.
III. Nutrition

Science of food and nutrients - their action and balance in relation to health.

A. Calories

1. Most adults require reduction of calories
   a. Overweight peaks in:
      1. 4th decade for women
      2. 6th decade for men

B. Food groups

Key is a balanced diet

1. Protein - required for synthesis of body proteins found in all cells.
   a. 10% - 15% total calories

2. Carbohydrates - source of energy
   a. 50% - 60% of total calories
   b. Avoid "refined" carbohydrates
      1. Excessive calories
      2. Limited nutrition

   c. Fiber
      1. Assists with regularity
      2. Include adequate fluids

3. Fats
   a. Animal fats - saturated
      1. Difficult to break down
         a. Can lead to fatty deposits on artery walls
1. Cholesterol - fat-like substance used by body to produce hormones
   a. Studies show activity reduced cholesterol level
   b. Fat deposits can decrease amount of blood flow
      1. High blood pressure
      2. Heart attack
      3. Stroke
   c. Found in eggs, red meat and liver
      1. Limit 3 eggs per week

b. Vegetable fats - unsaturated
   1. Greater ability to break down
   2. 10% - 15% total calories

4. Vitamins and Minerals
   a. Usually sufficient amounts in balanced daily diet
      1. However, studies show that in older adults
         a. 40% are deficient in Vitamin A
         b. 16% are deficient in Vitamin C
      2. May need Calcium supplement to prevent osteoarthritis
      3. Consult with health care provider on dietary needs
b. Components of foods

1. Salt (sodium chloride)
   a. Essential body nutrient - important for cell function
   b. Sodium retains body fluid
      1. May retain excessive amounts and cause blood pressure to rise
   c. Americans use too much salt
      1. Average consumption
         a. 10-40 times recommended amount
         b. Salt is hidden in prepared and canned foods
            1. Read labels for % salt content (sodium)

2. Potassium
   a. Another essential body nutrient important for cell function
   b. Certain high blood pressure medicines deplete potassium
      1. Users may require dietary or medicinal supplement

3. Caffeine
   a. Stimulant in:
      1. Coffee
      2. Tea
      3. Soda drinks
   b. Can increase heart rate
c. Can cause irritability
d. Decrease consumption
   1. Decaffeinated beverages

4. Iron
   a. Required for red blood cell production
   b. Found in red meats, green leafy vegetables, legumes and dried fruits

IV. Personal habits

A. Smoking
   1. Nicotine
      a. It is a stimulant
      b. Constricts blood vessels

2. Tar
   a. It is a known carcinogen

3. Smokers
   a. 10 years older than their non-smoking counterparts
   b. Cessation of cigarette
      1. Smokers can return to levels of non-smokers within 12-18 months of cessation

B. Alcoholism

1. Dependence on alcohol to the point that it interferes with mental and physical health and social and economic well-being
   a. Can happen anytime
      1. Boredom
2. Depression

3. Anxiety

4. Easy access to alcohol

2. Prevalence

a. Peaks in the 45-54 year-old group

b. Peaks again in the 65-74 year-old group

C. Medications

1. Effective when used correctly - 50% of all medications are used by 60 and older age group

a. Problems occur with:

   1. Duplication of medication by multiple physicians

   2. Drugs prescribed by friends

   3. Errors in administration

   4. Self selection

   5. Telephone prescription
      a. Neglecting doctors' appointments

   6. Medication omission by patient

   7. Using medication that has passed the expiration date

2. Over-the-counter medicine

   a. Avoid overuse

   b. If under medical care, consult with physician

3. Some side effects

   a. Antacids can cause diarrhea, or constipation
b. Aspirin

1. Cause gastric irritation
   a. Take with milk

2. Can cause bleeding disorder
   a. Don't exceed doctor's level of dosage

4. Interaction with other drugs
   a. Antacids and milk with tetracycline
      1. Impairs absorption
      2. Take 1 hour apart
   b. Depressants and alcohol
      1. Can cause respiratory depression
      2. Can be fatal if mixed
   c. Check with doctor, pharmacist or nurse
      for side effects and drug interaction

5. Purchasing medicine
   a. Buy in bulk if frequent dosage and if
      medication has long shelf life
   b. Generic vs. specific brands
      1. Generics can be less expensive
      2. Generic medication can be of equal quality
      3. Discuss with prescriber of medicine

V. Safety

A. Aging Process

1. Vision
   a. Persons over 60 require 2 times the illumina-
      tion that a 20-year old would require
b. Hearing, vision usually decreases

2. Reflexes, coordination and strength
   a. Gradually slows and decreases with age

3. Sensory loss
   a. Smell - decrease acuity with age
   b. Tactile - decrease in circulation and nerve stimulation with age
      1. Cold
      2. Heat

B. Driving
   1. Wear glasses if prescribed
   2. Wear sunglasses to prevent glare
   3. Night driving
      a. Never wear sunglasses
      b. Be cautious in poorly lit areas
         1. Many are in the area
   4. Travel
      a. Drive during the day
      b. Change drivers routinely
      c. Frequent rest and nourishment stops

C. Safety in home
   1. Prevention
      a. Remove scatter rugs
         1. Blend carpet into adjoining surfaces
      b. Remove obstacles in pathway
1. Toys, pets, shoes

c. Adequate lighting and railings in halls and stairways

d. Avoid loose clothing
   1. Catch on railing and knobs

e. Avoid scuffs - no support

f. Use bath mats and tub rails

g. Remove medicine and poisons within reach of grandchildren

D. Climatization

1. Heat
   a. Increase fluid intake
   b. Eat light meals
   c. Decrease activity in extreme heat
   d. Avoid over exposure to sun
      1. Sunscreen
      2. Hats and protective clothing

2. Cold
   a. Adequate clothing
   b. Keep home at 70°

3. Altitudes
   a. Increase altitude decrease concentration of oxygen
      1. Avoid if heart problem, breathing trouble or circulation impairment
      2. Be aware of altitudes when traveling
E. Travel

1. Don't over do it!
   a. Inquire about diet in restaurants
   b. Bring plenty of medications
   c. Have your medical information written down
      1. Carry all times
   d. Wear medi-alert tag if needed for medical condition
   e. Foreign countries
      1. Don't drink water - use bottled water
      2. Eat only fresh fruit that you can peel

VI. Mental health

A. Stress is defined as the emotional wear and tear of life.
   1. Pressure from outside that makes up full tense inside
   2. Causes of stress
      a. Personal loss
      b. Illness
      c. Change of life style
      d. Money problems
      e. Family changes/role changes
   3. Stress is normal
      a. Can be beneficial
      b. Causes difficulty when person experiences excessive amounts and has problem coping
4. Ways to relieve stress
   a. Talk it out
   b. Take a break - remove stressors temporarily
   c. Learn to relax
   d. Exercise
   e. Be realistic
   f. Avoid too many changes at one time
   g. See your doctor

B. Sexuality
   1. According to Masters & Johnson for men and women, the continuation of effective sexual functioning into the 8th and 9th decade is based on two vital ingredients:
      a. General state of good health
      b. Availability of an interesting and interested partner
   2. It may be slowed and need some modification
   3. Key is communication between partners

VII. Medical Check Ups

A. Blood pressure
   1. Measure of the force exerted against the walls of the arteries
      a. Over 20% of persons over 65 have some degree of high blood pressure
      b. Prevention
         1. Normal weight
         2. Limited salt intake - no table salt
3. Rest and exercise
4. Reduction of stress

c. Routine monitoring

B. Urinalysis

1. Checks kidney function
2. Checks sugar in urine
   a. Diabetes - decrease in producing of insulin which helps to store food for energy
   b. Risk factors
      1. For every 20% excess weight risk doubles
      2. Females 2:1
      3. Non-whites - 20% greater risk
   c. Prevention
      1. Normal weight
      2. Avoid excessive concentrated carbohydrates and fats in diet
      3. Regular exercise
      4. Routine urinalysis

C. E.C.G. - monitors electrical conductivity of heart/annual

1. Detects irregular heart beats
2. Detects some heart diseases
3. Periodic exam

D. Vision testing

1. Visual acuity
2. Tonometry
   a. Test for glaucoma
      1. Measure intraocular pressure
         a. Glaucoma is the leading cause of blindness
            1. Increased prevalence in persons over 40 – especially with hypertensive persons
      2. Routine check ups

E. Cancer detection

1. Breast
   a. 2nd leading cause of deaths among older women
   b. 95% of cases first found by women themselves
   c. Significant prevalence in men
   d. Detection
      1. Monthly self breast exams for men and women

2. Cervix
   a. Ranks 2nd in incidence to cancer of the breast
      1. Increased prevalence in post-menopausal women peaks at ages greater than 59
      2. Detection
         a. Annual PAP smears

3. Prostate
   a. Occurs most frequently in males 65-85. 54,000 new cases yearly
b. Detection  
   1. Annual prostate exam  
      a. Digital rectal exam  

4. Colon and rectum  
   a. Most prevalent cancer in U.S.  
      1. Equally in men and women  
   b. Prevention  
      1. High fiber diet  
   c. Detection  
      1. Hemacult test for stools  
         a. Check for blood  

F. Report all unusual symptoms or changes in body to health care provider.

VIII. Resources  

A. Many agencies and organizations provide information and services especially for older adults.  

1. Many offer discounts on:  
   a. Travel  
   b. Medication  
   c. Entertainment  
   d. Transportation  

2. How to find resources:  
   a. Public Health Department  
   b. Association for Retired Persons  
   c. Senior Citizen Council  
   d. Department for Aging
e. Yellow Pages under Social Services or Senior Citizens

f. Visiting Nurse Association

g. American Medical Association
   1. To find qualified doctor

h. Social Security Office

i. University and School Districts

j. Local hospitals

k. Local churches

l. Retirement communities

m. Local interest groups
   1. American Lung Association
   2. American Cancer Society
   3. American Diabetic Association
   4. American Nutrition Association
   5. Mental Health Association
   6. National Association for the Prevention of Blindness
   7. American Podiatry Association

HEALTH PERCEPTIONS QUESTIONNAIRE

PLEASE READ EACH OF THE FOLLOWING STATEMENTS, AND THEN CIRCLE ONE OF THE NUMBERS ON EACH LINE TO INDICATE WHETHER THE STATEMENT IS TRUE OR FALSE FOR YOU.

THERE ARE NO RIGHT OR WRONG ANSWERS.

IF A STATEMENT IS DEFINITELY TRUE FOR YOU, CIRCLE 5.
IF IT IS MOSTLY TRUE FOR YOU, CIRCLE 4.
IF YOU DON'T KNOW WHETHER IT IS TRUE OR FALSE, CIRCLE 3.
IF IT IS MOSTLY FALSE FOR YOU, CIRCLE 2.
IF IT IS DEFINITELY FALSE FOR YOU, CIRCLE 1.

SOME OF THE STATEMENTS MAY LOOK OR SEEM LIKE OTHERS. BUT EACH STATEMENT IS DIFFERENT, AND SHOULD BE RATED BY ITSELF.

A. According to the doctors I've seen, my health is now excellent. 5 4 3 2 1

B. I try to avoid letting illness interfere with my life. 5 4 3 2 1

C. I seem to get sick a little easier than other people. 5 4 3 2 1

D. I feel better now than I ever have before. 5 4 3 2 1

E. I will probably be sick a lot in retirement. 5 4 3 2 1

F. I never worry about my health. 5 4 3 2 1

G. Most people get sick a little easier than I do. 5 4 3 2 1

H. I don't like to go to the doctor. 5 4 3 2 1

I. I am somewhat ill. 5 4 3 2 1

J. In retirement, I expect to have better health than other people I know. 5 4 3 2 1
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<td>K.</td>
<td>I was so sick once I thought I might die.</td>
<td>5 4 3 2 1</td>
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<td>L.</td>
<td>I'm not as healthy now as I used to be.</td>
<td>5 4 3 2 1</td>
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<td>M.</td>
<td>I worry about my health more than other people worry about their health.</td>
<td>5 4 3 2 1</td>
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<td>N.</td>
<td>When I'm sick, I try to just keep on going as usual.</td>
<td>5 4 3 2 1</td>
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<td>O.</td>
<td>My body seems to resist illness very well.</td>
<td>5 4 3 2 1</td>
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<td>P.</td>
<td>Getting sick once in a while is a part of my life.</td>
<td>5 4 3 2 1</td>
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<td>Q.</td>
<td>I'm as healthy as anybody I know.</td>
<td>5 4 3 2 1</td>
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<td>R.</td>
<td>I think my health will be worse in retirement than it is now.</td>
<td>5 4 3 2 1</td>
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<td>S.</td>
<td>I've never had an illness that lasted a long period of time.</td>
<td>5 4 3 2 1</td>
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<td>T.</td>
<td>Others seem more concerned about their health than I am about mine.</td>
<td>5 4 3 2 1</td>
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<td>U.</td>
<td>When I'm sick, I try to keep it to myself.</td>
<td>5 4 3 2 1</td>
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<td>V.</td>
<td>My health is excellent.</td>
<td>5 4 3 2 1</td>
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<td>W.</td>
<td>I expect to have a very healthy retirement.</td>
<td>5 4 3 2 1</td>
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<td>X.</td>
<td>My health is a concern in my life.</td>
<td>5 4 3 2 1</td>
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<td>Y.</td>
<td>I accept that sometimes I'm just going to be sick.</td>
<td>5 4 3 2 1</td>
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<td>Z.</td>
<td>I have been feeling bad lately.</td>
<td>5 4 3 2 1</td>
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<td>Statement</td>
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<td>AA</td>
<td>It doesn't bother me to go to the doctor.</td>
<td>5 4 3 2 1</td>
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<td>BB</td>
<td>I have never been seriously ill.</td>
<td>5 4 3 2 1</td>
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<td>CC</td>
<td>When there is something going around, I usually catch it.</td>
<td>5 4 3 2 1</td>
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<td>DD</td>
<td>Doctors say that I am now in poor health.</td>
<td>5 4 3 2 1</td>
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<td>EE</td>
<td>When I think I am getting sick, I fight it.</td>
<td>5 4 3 2 1</td>
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<td>FF</td>
<td>I feel about as good now as I ever have.</td>
<td>5 4 3 2 1</td>
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RANK ORDER OF RETIREMENT NEEDS

THE FACTORS LISTED BELOW ARE RELATED TO PRERETIREMENT PLANNING. PLEASE RANK THE ITEMS IN THE ORDER IN WHICH YOU PERCEIVE THEM TO BE MORE OF A NEED FOR RETIREMENT PLANNING.

EXAMPLE: IF YOU CONSIDER "LEISURE TIME ACTIVITIES" TO BE THE MOST IMPORTANT ITEM IN PRERETIREMENT PLANNING, THEN RANK IT # 1. CONTINUE IN THIS MANNER UNTIL YOU HAVE ARRANGED ALL THE FACTORS.

PLEASE RANK 1 TO 8

HOUSING AND LIVING ARRANGEMENT

________________________________________

SOCIAL SECURITY BENEFITS

________________________________________

LEISURE TIME ACTIVITIES

________________________________________

RETIRED WORK ACTIVITIES

________________________________________

FINANCIAL PLANNING

________________________________________

HEALTH NEEDS

________________________________________

LEGAL ASPECTS

________________________________________

PENSIONS

________________________________________

PLEASE FEEL FREE TO ADD YOU OWN PERSONAL RETIREMENT NEEDS IF THEY ARE NOT INCLUDED IN THE ABOVE LIST.
SUBJECT PROFILE FORM

PERSONAL DATA

NUMBER:

AGE: SEX: MALE FEMALE

EMPLOYMENT STATUS: FULL-TIME PART-TIME

HOMEMAKER RETIRED

EMPLOYEE OF THE INDUSTRY? YES NO

INTENT TO RETIRE: WITHIN HOW MANY YEARS OR MONTHS DO YOU EXPECT TO RETIRE?

HAVE YOU HAD ANY FORMAL PRERETIREMENT EDUCATION PRIOR TO THIS SEMINAR? YES NO
APPENDIX E
RETIREMENT PLANNING 1981

SEMINAR AGENDA

Friday
"The Retiree's Perspective"
Employee Benefits: Overview
Legal Concerns
Investment Planning
Lunch: "Munch a Bunch for Lunch"
Social Security
Retirement Accounts
Challenges of Maturity
Adult Physical Fitness

Saturday
County Council on Aging
Transition
Planning for a Healthy Retirement
"You Pack Your Own Chute"
APPENDIX F
DEAR PRERETIREE:

I AM A GRADUATE STUDENT AT THE UNIVERSITY OF ARIZONA, MAJORING IN NURSING. I AM PRESENTLY WORKING ON MY MASTERS THESIS ON PRERETIREMENT PLANNING. I HAVE DEVELOPED THE "PLANNING FOR A HEALTHY RETIREMENT" PORTION OF THE PRERETIREMENT SEMINAR AND I WOULD LIKE TO EVALUATE ITS' EFFECTIVENESS IN REGARD TO THE IMPACT ON PRERETIREES.

ENCLOSED ARE TWO QUESTIONNAIRES INVOLVING PERCEPTION OF HEALTH AND PRIORITY OF RETIREMENT CONCERNS. THE QUESTIONNAIRES REQUIRE ONLY A FEW MINUTES TO COMPLETE. PARTICIPATION IS VOLUNTARY AND YOU MAY ANSWER ALL OR PART OF THE QUESTIONS. ALL DATA RECEIVED WILL BE TREATED WITH ANONYMITY AND CONFIDENTIALITY; RESULTS OBTAINED FOR THE GROUP WILL BE USED FOR RECOMMENDATIONS CONCERNING THE CONTENT OF THE PROGRAM AND FOR FURTHER RESEARCH. PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE.

THE QUESTIONNAIRE WILL BE GIVEN AT THE BEGINNING OF THE PROGRAM. YOU WILL BE RECEIVING ANOTHER QUESTIONNAIRE AFTER THE PRERETIREMENT SEMINAR FOR THE PURPOSE OF COMPARING RESPONSES. YOU ARE FREE TO WITHDRAW FROM THE STUDY AT ANY TIME.


THANK YOU

LESLIE ANN McCARRON R.N.
APPENDIX G
TO: Leslie McCarron
1385 S. Kolb Road, Apt 516 85710

FROM: Ada Sue Hinshaw, R.N., Ph.D.  Margarita Kay, R.N., Ph.D.
       Director of Research  Chairperson, Research Committee

DATE: July 16, 1981

RE: Human Subjects Review: "Health Perception, Importance of Health,
       and Pre-Retirement Planning"

Your project has been reviewed and approved as exempt from University
review by the College of Nursing Ethical Review Sub-committee of the
Research Committee, and the Director of Research. A consent form with
subject signature is not required for projects exempt from full
University review. Please use only a disclaimer format for subjects
to read before giving their oral consent to the research. The Human
Subjects Project Approval Form is filed in the office of the Director
of Research, if you need access to it.

We wish you a valuable and stimulating experience with your research.
April 29, 1981

Leslie Ann McCarron, R.N.
1385 S. Kolb Road, #516
Tucson, AZ 85711

Dear Ms. McCarron:

In response to your letter of April 24th I am enclosing a technical report (R-1987/5-HEW) on the Health Perceptions Questionnaire (HPQ). This document contains the information you requested.

You may use the HPQ or a revision in your research. It is hard for me to imagine how you would change its focus from health to retirement or the effects of such a change. Perhaps, if you sent a copy of your proposed revision I could comment further.

Regardless, good luck with your study. Let me know if I can be of further assistance.

Sincerely,

John E. Ware, Jr.

Enclosure
APPENDIX I
HPQ SCORING RULES

The HPQ was scored by summing the responses for each construct. Listed below are scoring rules for the HPQ items and subscales.

### Scoring Rules for HPQ Items

<table>
<thead>
<tr>
<th>Scoring</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 = Mostly true</td>
<td></td>
</tr>
<tr>
<td>3 = Don't know</td>
<td>C, E, F, H, I, K, L, R, Z, CC, DD</td>
</tr>
<tr>
<td>2 = Mostly false</td>
<td></td>
</tr>
<tr>
<td>1 = Definitely false</td>
<td></td>
</tr>
</tbody>
</table>

### Scoring Rules for HPQ Subscales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Health</td>
<td>K + S + BB</td>
</tr>
<tr>
<td>Current Health</td>
<td>A + D + I + L + Q + V + Z + DD + FF</td>
</tr>
<tr>
<td>Health Outlook</td>
<td>E + J + R + W</td>
</tr>
<tr>
<td>Health Worry/Concern</td>
<td>F + M + T + X</td>
</tr>
<tr>
<td>Resistance- Susceptibility</td>
<td>C + G + O + CC</td>
</tr>
<tr>
<td>Sickness Orientation</td>
<td>P + Y</td>
</tr>
<tr>
<td>Rejection of Sick Role</td>
<td>B + N + U + EE</td>
</tr>
<tr>
<td>Attitude Toward Going</td>
<td>H + AA</td>
</tr>
</tbody>
</table>
REFERENCES


Barron, C. "Medical Considerations in Planning Retirement." Industrial Gerontology, 2 (Summer, 1975), pp. 189-199.


Earland, M. "Preparation for Retirement - 'The Best is Yet to Be'." Nursing Mirror and Midwives, 24 (December 13, 1979), pp. 149+.


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