

DOCUMENT RESUME

ED 205 805

CE 029 860

AUTHOR Glass, J. Conrad, Jr.; Knott, Elizabeth S.
 TITLE An Analysis of the Effectiveness of a Workshop on Aging in Changing Middle-Aged Adults' Attitudes toward the Aged.

INSTITUTION North Carolina State Univ., Raleigh. Dept. of Adult and Community Coll. Education.

SPONS AGENCY NRTA-AARP Andrus Foundation, Washington, D.C.
 PUB DATE Jul 81
 NOTE 167p.

EDRS PRICE MF01/PC07 Plus Postage.

DESCRIPTORS *Aging (Individuals); *Attitude Change; Demography; Followup Studies; Individual Characteristics; *Middle Aged Adults; Older Adults; Pretests Posttests; *Program Effectiveness; Questionnaires; Sex Role; State Surveys; *Workshops

IDENTIFIERS Kogan Attitudes Toward Old People Scale; North Carolina; Purpose in Life Test

ABSTRACT

A study examined whether middle-aged adults' attitudes toward persons could be changed in a positive direction through planned educational experiences designed specifically to change attitudes. A sample of 162 middle-aged adults from various sections of North Carolina (89 of whom constituted the experimental group and 79 of whom comprised the control group) participated in the study. Both groups completed the Kogan Attitudes Toward Old People Scale, the Purpose in Life Test (PIL), and a general informative test both before and two to four months after the experiment. While the control group received no instruction, the experimental group participated in a series of six two-hour workshops on aging. The adults' attitudes toward older persons changed significantly in a positive direction following the workshop series, whereas attitudes of those in the control group decreased. Those adults with higher PIL scores held significantly more positive attitudes toward the aged than those with lower PIL scores. Other variables that seemed to be linked to attitudes toward aging include marital status, race, and family income, with unmarried non-white adults with annual incomes above \$12,000 having the most positive attitude changes. Recommendations call for further research to examine different age groups and additional variables. (MN)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED205805

AN ANALYSIS OF THE EFFECTIVENESS OF A WORKSHOP ON AGING
IN CHANGING MIDDLE-AGED ADULTS' ATTITUDES
TOWARD THE AGED

by

J. Conrad Glass, Jr.
Associate Professor, Adult and Community College Education
North Carolina State University

and

Elizabeth S. Knott
Research Assistant, Adult and Community College Education
North Carolina State University

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

J. Conrad Glass, Jr.

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) "

Supported by:

The NRTA/AARP Andrus Foundation

July 1981

ABSTRACT

AN ANALYSIS OF THE EFFECTIVENESS OF A WORKSHOP ON AGING IN CHANGING MIDDLE-AGED ADULTS' ATTITUDES TOWARD THE AGED

by

J. Conrad Glass, Jr. and Elizabeth S. Knott

The central purpose of this study was to determine whether middle-aged adults' attitudes toward older persons could be changed in a positive direction through planned educational experiences designed specifically to change attitudes. A second purpose was to determine the extent to which certain personal and demographic characteristics of middle-aged adults were associated with attitudes toward the aged and attitude change. A third purpose was to determine if the attitudes changed through the educational experiences would persist after a time period of two to four months.

The sample consisted of 162 adults from various sections of the State of North Carolina. The experimental group numbered 89 and 73 people constituted the control group. Participation was voluntary.

The study employed the pretest→treatment→posttest→follow-up posttest design. The experimental group participated in a series of six two-hour workshops on aging, designed by the researchers. The control group received no instruction but completed the pretest, posttest, and follow-up posttest. The workshops were held in 10 locations spread throughout North Carolina.

The Kogan O.P. Attitude Scale was administered to all participants before and after the experiment and was mailed to them two to four months later. The Purpose in Life Test (PIL) and general informational questionnaire were administered to all participants before the experiment. A total of 162 persons completed pretests and posttests and only 89 persons completed all three administrations of the tests. The least squares analysis was the statistical procedure used to analyze the data at a .10 level of significance.

It was expected that the middle-aged adults participating in this study would hold negative attitudes toward older persons, but they were positive. "Purpose in Life" was the only personal and situational characteristic which was significantly related to the pretest attitude scores. Those adults who had a more positive sense of meaning and purpose in their own lives held more positive attitudes toward the aged.

The adults' attitudes toward older persons changed significantly in a positive direction following the workshop series, while those in the control group decreased. It was concluded that the workshop series had a significant impact on these differences. The attitudes of both the experimental and control groups increased from the posttest to the follow-up posttest. Due to the small percentage of respondents returning follow-up posttests, the researchers feel caution is needed in interpreting these latter findings.

Two variables were significantly related to the amount of change in attitudes which occurred between the pretest and posttest -- the group to which the respondents belonged, whether experimental or control, and the respondents' sex. This analysis reinforced the earlier conclusion

that the workshop series of study did have a positive effect on attitudes toward the aged. Females' LS mean declined while the males' LS mean increased.

ACKNOWLEDGEMENTS

Appreciation is expressed to the NRTA/AARP* Andrus Foundation for the financial support for this project.

Special appreciation is given to Dr. Curtis Trent, currently the Associate Director, University of Arkansas, Cooperative Extension Service, and Joan Crockett Delamar and Ginger Rice for their contributions to earlier research projects which provided the basis for this study.

A special debt of gratitude is expressed to the following persons for their leadership in implementing and/or teaching of the various workshops: John Andrews, Nels Arnold, Linda Bedo, Elaine Blake, John Denning, Anne Edge, Jim Edmundson, Rebecca Gaddy, Benny Hampton, Nancy Myers, Phoebe Putnam, Mike Reaves, Hal Salisbury, Davia Veach and Bernadette Watts. Without their interest, support, and enthusiasm, this project would never have gotten "off the ground."

The participation of the adults who voluntarily took part in the various workshops is gratefully acknowledged.

Appreciation is expressed to Sandra B. Donaghy, Department of Statistics, North Carolina State University, for her assistance in the development of the statistical design of the study and for the computer programming.

Acknowledgement is expressed for the assistance rendered by Marjorie Edwards, Selma McEntire, Lois Miller, Sue Voeltner and Bet Yancey who shared in the typing and other numerous tasks related to project implementation and completion.

*National Retired Teachers Association/American Association of Retired Persons.

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF FIGURES	v
INTRODUCTION	1
Purpose	1
Background and Need for Study	3
Limitations	4
CONCEPTUAL FRAMEWORK AND REVIEW OF THE LITERATURE	6
Definition of Attitudes	6
Attitude Formation and Change	7
Attitudes Toward Older Adults	12
Developmental Needs of the Middle-Aged	14
Variables Related to Attitudes Toward the Aged	16
Objectives	27
METHODOLOGY	28
Research Design	28
Population and Sample	28
Development of Workshop Series	33
Selection and Orientation of Workshop Leaders	35
Instrumentation and Data Collection	35
Analysis of Data	37
RESULTS	40
Profile of Participants	40
Attitudes of Middle-Aged Adults Toward the Aged	43
Relationships between Respondent Characteristics and Attitudes Toward Older Persons	46
Unit on Aging and Changes in Attitudes	54
Relationships between Respondent Characteristics and Changes in Attitudes Toward the Aged	55
Analysis of Follow-Up Posttests	60
SUMMARY AND CONCLUSIONS	77
Purpose	77
Background and Need for the Study	78
Research Procedures	79
Results and Conclusions	80
IMPLICATIONS	87

TABLE OF CONTENTS (continued)

	Page
RECOMMENDATIONS	90
REFERENCES	92
APPENDICES	99
Appendix A. Leader's Guide to the Workshop Series	100
Appendix B. The Kogan O.P. Scale	143
Appendix C. General Information Questionnaire	147
Appendix D. Correlation Matrix Table	151
Appendix E. Supplementary Materials for Use with the Workshop Series	153

LIST OF TABLES

	Page
1. Frequency distribution of respondents by personal and situational characteristics	41
2. Relationships between attitudes toward the aged, pretest, and personal and situational characteristics of respondents	48
3. Attitudes toward the aged by personal and situational characteristics	50
4. Relationships between attitudes toward the aged, posttest, and personal and situational characteristics of respondents	57
5. Relationships between changes in attitudes toward older persons, difference in pretest and posttest, and personal and situational characteristics of respondents	58
6. Frequency distribution of respondents who completed three administrations of Kogan O.P. Scale by personal and situational characteristics	62
7. Relationships between attitudes toward the aged, pretest and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale	64
8. Attitudes toward the aged by personal and situational characteristics of those respondents completing three administrations of the Kogan O.P. Scale	65
9. Relationships between attitudes toward the aged, posttest, and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale	70
10. Relationships between changes in attitudes toward the aged, difference in pretest and posttest, and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale	71
11. Relationships between attitudes toward the aged, follow-up posttest and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale	74
12. Relationships between changes in attitudes toward the aged, difference in posttest and follow-up posttest, and personal and situational characteristics of those who responded to three administrations of Kogan O.P. Scale	76

LIST OF FIGURES

	Page
1. Model for evaluating the influence of a workshop on aging on middle-aged adults' attitudes toward older persons	29
2. Distribution of institutions and organizations selected for this study	32
3. Attitude toward older persons, pretest, mean score on Kogan O.P. Scale	45
4. LS mean scores, attitudes toward older persons by group	56
5. LS mean scores, attitudes toward aged by group for those taking Kogan O.P. Scale three times	68

INTRODUCTION

Purpose

This project was a continuation of an overall effort to develop and evaluate the effectiveness of educational programs in bringing about positive change in attitudes toward aging and the aged. The project was an extension of two projects previously funded by the Andrus Foundation entitled "The Development and Evaluation of a Series of Learning Experiences Designed to Effect Changes in Adolescents' Attitudes Toward the Aged" (Trent, Glass, and Crockett, 1977) and "The Impact of a Series of Learning Experiences on Ninth-Grade Students' Attitudes Toward the Aged" (Glass, Trent, and Rice, 1978).

The population used in the first study was 4-H Club youth in North Carolina between the ages of 13 and 18. The learning experiences took place in an informal environment and were directed by volunteer adult leaders. Three different types of learning experiences were tested in the study and attitudes were measured prior to and immediately following the learning experiences.

The major conclusions of the study were that attitudes of adolescents toward the aged can be changed significantly through well-designed learning experiences and the three techniques are equally effective in changing attitudes.

There was some concern as to whether the sample used in the first study was truly representative of adolescents; therefore, the population of the second study was broadened to junior high adolescents in North Carolina. The learning experiences in the second study consisted of a ten-hour lesson series introduced into the public schools. The

attitudes of the students were measured prior to and immediately following the learning experiences with the addition of a follow-up test after four to six months to determine whether the changed attitudes persisted over time.

The major conclusions of this study were that the attitudes of adolescents toward the aged can be changed through a two-week unit of study in the public schools and these attitudes can persist over a period of four to six months.

The basis for expanding these projects developed from the question, "If attitudes of adolescents toward aging and the aged can be changed through carefully planned educational experiences, is it possible to change middle-age attitudes toward aging and the aged through the same means?" A further task of this project was to expand the relatively narrow research base of middle-age attitudes toward aging and the aged.

The primary purpose of this study was to determine whether a 12-hour work-hop series on aging could influence significant changes in attitudes toward aging and the aged among middle-aged adults in North Carolina. More specifically, the study addressed the following research questions:

1. What are the current attitudes toward the aged among middle-aged adults in North Carolina?
2. What personal and demographic variables are related to the current attitudes toward older adults among the participants in the study?

3. Can these attitudes toward the aged be changed through participation in a 12-hour workshop series on aging?
4. If a change in attitudes does occur, what personal and demographic variables are related to this change?
5. Do changed attitudes persist after a lapse of two to four months?

Background and Need for Study

The percentage and number of older adults in our society are increasing and will continue to increase in the future. At the present time, 14 percent of the population, or 30 million people, are age 60 or over. By the year 2000, it is estimated that one-third of the population in the United States will be 60 years of age or older (McClusky, 1975). In a society experiencing an increase of older citizens, it is essential that attention be given to improving the quality of life of these persons.

An important feature of the social space with which those defined as old must contend is the extent to which others are oriented to invite or shun, include or ignore, plan for or with, support or attack, reward or negatively sanction (McTavish, 1971, p. 90).

The orientation which society has toward older adults may be critical to the quality of their aging experience as well as their adjustment and survival. Cultural rejection of the elderly as a result of a negative orientation may lead to self-rejection which may in turn precipitate senility (Linden, 1957). Negative attitudes toward the aged may contribute to maladaptive behaviors, some of which may lead to premature death. Negative views of aging, life in general, and the self may result in an unwillingness or inability on the part

of the elderly to seek needed services, health care, and other types of assistance and an unwillingness on the part of the middle-aged to plan for their own aging, thus disassociating themselves from this process (Bennett and Eckman, 1973). Havighurst (1968) also speaks to the role of a supportive social environment in successful aging.

Attitudes of the self and others may indeed influence the way one ages. As Bevan (1972, p. 4052) states:

The key in the problems of aging is not natural resources or the know-how of the medical and behavioral sciences. It is a fundamental change in attitude.

Thus by studying the process of attitude change toward the elderly, this project attempts to take one step in the direction of improving the social environment for aging in our society.

Limitations

The following factors were considered as limitations of the research project:

- The sample for the study consisted of middle-aged adults from the State of North Carolina. Sites selected depended upon availability and willingness of the organizations and institutions to participate.
2. Volunteer learners participated in the workshop series; therefore, they may have entered the study with a "readiness" to learn about aging and changing their attitudes.
3. The workshop leaders' attitudes toward aging and the aged may have influenced the respondents' attitudes.
4. A number of pretest/posttest instruments were voided and not included because of incomplete responses.

5. The adults' attitudes toward completing the testing instruments may have affected their responses and prevented them from giving a true expression of their feelings.
6. The relatively small numbers of males and nonwhites in the study may have resulted in some spurious findings regarding these two variables.

CONCEPTUAL FRAMEWORK AND REVIEW OF THE LITERATURE

Definition of Attitudes

At the center of this research effort is the basic concept of "attitudes." Thurstone (1946, p. 39) defines attitudes as:

The intensity of positive or negative affect for or against a psychological object. A psychological object is any symbol, person, phrase, slogan, or idea toward which people can differ as regards to positive or negative affect.

Triandis (1971, pp. 2-3) states as his definition:

An attitude is an idea charged with emotion which predisposes a class of actions to a particular class of social situations.

Halloran's comments (1967, p. 14) can elaborate on these definitions:

Attitudes are not merely latent states of preparedness awaiting the presentation of an appropriate object for their activation. They have motivational qualities and can lead a person to seek (or avoid) the objects about which they are organized.

These definitions suggest that attitudes have three components: a cognitive component, an affective component, and a behavioral component (or a predisposition to action). Triandis (1971, pp. 14-16) takes this idea further:

Attitudes involve what people think about, feel about and how they would like to behave toward an attitude object. Behavior is not only determined by what people would like to do but also by what they think they should do, that is, social norms, by what they have usually done, that is, habits and by the expected consequences of the behavior, . . . attitudes are neither necessary nor sufficient causes of behavior. They are "facilitative causes."

This conceptualization of attitudes can serve as a background for a discussion of how attitudes are formed and how they can be changed.

Attitude Formation and Change

In discussing attitudes, Halloran (1967, p. 14) states: ". . . attitudes are not innate--they are learned, they develop and they are organized by experience." Along this same vein, Knox states (1977, p. 365):

Attitudes reflect internal and external influences, and they shift over time as the individual interacts with the environment.

These past experiences which come from interacting with the environment may include direct contact with the attitude object. Attitudes which develop as a result of this direct contact appear to be more intense; however, it is interesting to note that only a small proportion of attitudes develop in this manner.

Attitudes are also learned through the experiences that a person has by interacting with family, friends and other significant groups. "To a large degree the attitudes of the individual depend upon the attitudes and norms of the groups which form his frame of reference" (Halloran, 1967, p. 40). This group influence on attitude formation is supported by numerous authorities, including Triandis (1971). Triandis notes that persons adopt, as guides for their own attitudes, the attitudes prevalent in groups in which they are members as well as those groups to which they would like to belong.

A study by Sizer and Porter (1960) reported on the effect of gaining knowledge about an attitude object on the attitude. According to these researchers, the more knowledge one has about an innovation, the more likely he/she is to adopt it. Halloran (1967, p. 61) expands the role of knowledge:

Attitude change depends not just on knowledge, but on many other factors, including the person who is presenting the knowledge, how this person is perceived, the form in which the knowledge is given, the circumstances of delivery, the manner of presentation, the conditions and affiliations of those receiving the knowledge and the function that knowledge might perform in serving the needs of the recipients.

Triandis (1971, p. 143) comments on attitude change by stating:

. . . Attitude change can occur by first changing the cognitive component (new information), the affective component (pleasant or unpleasant experiences in the presence of the attitude object), or the behavioral component (by norm change or legal imposition of behavioral changes).

Kelman outlines three processes of social influence which have an impact on attitude formation and change. Compliance occurs when an individual accepts the influence of another person or group by changing his/her attitudes in order to gain their approval. Identification with others is a means of establishing or maintaining a desired relationship. In internalization, the attitude and resultant behavior are congruent with the individual's value system or are a means to solve problems or fill needs. The content of the attitude provides satisfaction while the social effect brings on compliance and the act of conforming initiates identification (Fishbein, 1967, p. 470).

McKeachie and Doyle (1966, p. 43) add a situational component by noting that the behavior an individual exhibits in a situation related to an attitude depends on the attitude and the situation. In concluding, they state that attitudes may change as a result of:

1. Changes in the cognitive component, the affective component, or the action component; or

2. Changes as a function of group participation, immediate decision, public commitment, and perceived consensus.

Newcomb and associates (1965, p. 89) conclude that attitude change is affected by:

1. Variation in the characteristics of prior attitudes toward the objects about which new information is received; and
2. Variation in the characteristics of the situation in which the information is transmitted, including both the kind of information that is transmitted and the agent that transmits it.

Halloran (1967, p. 78) concurs with the importance of previous attitudes when he states that attitude change is dependent on the characteristics of the attitude system, group affiliations, and the personality of the individual.

In their discussion of attitudes, Sherif, Sherif, and Nebergall (1965, p. 13) reflect that:

Changing an individual's attitude means changing him as a person, changing a part of himself as he has come to know himself relative to his social world. This change depends very generally on the receipt of new information that is in some way relevant to the attitude holder.

As can be seen from the literature, there appear to be three primary ways that attitudes can be formed or changed--through interaction with others, through direct experiences with attitude objects, and through more knowledge. Numerous research efforts have been conducted regarding the possibility of changing attitudes toward older adults, the main concern of this study. From the results of these efforts, it can be seen that these primary means of changing attitudes

can be effective. Porter and O'Connor (1978) conducted a "Psychology of Aging" course in which the students were given factual information on the aging process and were afforded personal contact with older adults by being teamed with an older "consultant." The researchers found that the students' attitudes toward the elderly became more positive as did the consultants' attitudes. Porter and O'Connor concluded (p. 144):

The implication of the study is that the information given in class and the interpersonal relationship formed with older people had a definite impact on how the students viewed old age in general.

Cantela and Wisocki (1969) were able to significantly change the attitudes of college students in a positive direction through the use of imagery. The population used for Gordon and Hallauer's study (1976) was college students enrolled in a course on adult development. The students were given the opportunity to participate in a friendly visitor program at a health-related facility for older adults. While the students entered the course with slightly positive attitudes, the researchers found that the course alone significantly altered the students' attitudes while participation in just the friendly visitor program did not significantly change attitudes. Participation in both the course and the friendly visitor program had the greatest impact on changing students' attitudes.

Cicchetti, Fletcher, Lerner, and Coleman (1973) investigated the effects of a social medicine course stressing the problems of aging and found little change in attitudes toward aging and older adults in first-year medical students.

In earlier studies (Trent, Glass, and Crockett, 1977; Glass, Trent, and Rice, 1978), it was found that adolescent attitudes could be changed through participation in planned educational experiences. In the first study, the greatest change in 4-H adolescents' attitudes was found in the group which experienced the Seminar-Interview format. This combination of educational experiences gave the youth the opportunity for interaction with others, direct contact with attitude objects, and increased knowledge. There was, however, no significant difference in attitude change among the various experimental groups, leading the researchers to conclude that the Seminar-Interview format, the Interview (alone), and the Seminar (alone) would be equally effective in changing attitudes in 4-H youth. In the second study, the Seminar format was used exclusively with secondary school adolescents. The students' attitudes toward older adults were changed significantly in the positive direction. In designing the present study, the seminar approach was adapted for use with middle-aged adults in a workshop setting.

For this research effort, the basic components of attitudes (cognitive, affective, and behavioral) were acknowledged and the primary means for bringing about attitude change were utilized. The participants in the workshop were given factual information on the social, psychological and biological processes of aging, the opportunity to examine their own attitudes and feelings in small-group interaction, and at least one opportunity for a positive experience with older adults.

It was a basic assumption of this project that attitudes are learned. This is significant; for if attitudes are learned, then

new ones can be learned! If middle-aged adults are approaching their own aging with negative attitudes toward this process, they need not feel the despair and alienation which can accompany this negative orientation. By changing these attitudes in a positive direction, middle-aged adults can plan for their own aging and experience the fulfillment and continued development which can accompany the aging process. It was the aim of this project to help the middle-aged adult take a step in this direction.

Attitudes Toward Older Adults

It is generally accepted that we live in a youth-oriented society. "Being young" is preferred to "being old" and "getting old" is not something individuals want to happen to them. Numerous research efforts have been conducted which document this trend in our society of negative attitudes toward aging and the aged (Tuckman and Lorge, 1953a; Kogan and Shelton, 1962a,b; McTavish, 1971; Thorson, 1975b; Harris, 1975; Sadowski, 1978). The devalued position accorded older adults in today's life can be evidenced in societal practices and scientific literature:

Stereotyped views of the elderly uncovered in various studies include views that old people are generally ill, tired, not sexually interested, mentally slower, forgetful and less able to learn new things, grouchy, withdrawn, feeling sorry for themselves, less likely to participate in activities (except, perhaps, religion), isolated, in the least happy or fortunate time of life, unproductive, and defensive in various combinations and with varying emphases (McTavish, 1971, p. 97).

Palmore's discussion (1969) of stereotypes concurs with McTavish's statement.

The attitudes which others have toward the elderly appear to have an impact on the treatment they receive (Coe, 1967; Mutschler, 1971; Spence and Feigenbaum, 1968; Campbell, 1971). The literature also suggests that these attitudes are critical for the adjustment and, perhaps, even the survival of older persons as well as the older adults' own self-image, feelings of adequacy and usefulness, and attitude toward life (Bennett and Eckman, 1973; Ginzberg, 1952; Kahana and Coe, 1969; Levin, 1964; Linden, 1957; Harris, 1975; Ross and Freitag, 1976). As Rosow (1962) stated:

By now it should be clear that the crucial people in the aging problem are not the old, but the younger age groups, for it is the rest of us who determine the status and position of the older person in the social order.

In order to improve the quality of life of our older citizens, it seems imperative that attention be given to changing the negative attitudes exhibited by the middle-aged toward the aged. While there has been little research done expressly to measure the attitudes of the middle-aged, some findings in this area have shown that their attitudes reflect the negative trend presented by the population as a whole (Tuckman and Lorge, 1953a,b, 1958a; Kalish and Johnson, 1970).

The attitudes of the middle-aged take on importance when one considers the fact that the people of this age group are most often found in positions of influence and decision-making:

Middle-aged men and women, while they by no means regard themselves as being in command of all they survey, nevertheless recognize that they constitute the powerful age group vis-a-vis other age groups; that they are the norm-bearers and the decision-makers; and they live in a society which, while it may be oriented toward youth, is controlled by the middle-aged (Neugarten, 1968, p. 93).

Knox (1977, p. 54) has elaborated on this phenomena:

The middle generation of adults between their thirties and their sixties tends to carry the burden of concern for programs, pennies, and progress. As members of the middle generation, they usually hold positions of power and responsibility in which they are expected to deal with public problems.

The middle-aged, then, have a great impact on the treatment of the aged for they control the policies and programs on which many older adults find themselves dependent.

An even greater impact lies in their influence, as norm-bearers, over the formation of the attitudes of the young. As was stated in the concluding observations of the Harris poll (1975, p. 231) conducted for the National Council on Aging:

All who inform or influence others, particularly the very young, have an important role to play in improving public understanding. The heaviest responsibility rests on those who wield the greatest influence or who provide most of the information.

An important note here is the fact that the attitudes imparted by the middle-aged to the young are most likely the attitudes by which those same middle-aged will be judged when they move into the aged population group themselves.

Developmental Needs of the Middle-Aged

In terms of adult development, the middle-age years would seem an optimum time for attempting to change attitudes toward aging and the aged through a series of educational experiences. McKenzie (1979) and Entine (1979) both cite aging as an appropriate topic for inclusion in a curriculum developed for persons concerned with mid-life transitions.

While the ages 35 to 55 are often considered the prime of life, the literature states that these years precipitate new developmental tasks, many of which deal with facing and planning for the inevitability of one's own aging (Lidz, 1968; Havighurst, 1972). During these years, the adult faces a period of stocktaking, introspection, and possible anxiety and mourning for those things lost. There is also a change in time orientation with a shift towards time-left-to-live. Sheehy (1974) cites the beginning of this process at ages 35 to 40 with the authenticity crisis. It is a time of re-examining purposes and re-evaluating how to spend resources in the years to come. If these issues are not dealt with at this time, they will re-emerge around 50 with even greater urgency and impact.

Neugarten (1968, p. 94) states: "The middle-ager becomes increasingly aware of the distance - emotionally, socially, and culturally - between himself and the young." Accompanying this is an increasing sense of closeness and identification with the old. Levinson (1978, p. 210) perhaps sums up this process best:

A major developmental task of the Mid-life Transition is to confront the Young and the Old within oneself and seek new ways of being Young/Old. A man must give up certain of his former youthful qualities - some with regret, some with relief or satisfaction - while retaining and transforming other qualities that he can integrate into his new life. And he must find positive meanings of being 'older'.

Davitz and Davitz (1976) describe the type of identity crisis found in mid-life centering around new issues (Who have I been? Who have I become? Who will I be?) rather than the single concern of adolescence (Who am I?). Added emotional force is given to these questions when it is realized that the answers are those which the person must live with for the rest of his/her life.

This transition in roles makes this time a "teachable moment" for middle-aged adults. There is indication in the literature that an inner crisis and/or a change in roles or developmental tasks are motivating factors for participating in educational activities for adults (Boyd, 1961; Knox, 1977). As Weathersby (1978, p. 7085) found in his study on the developmental perspective of adults' uses of formal education:

Overall, there are commonalities in adults' reasons for enrolling which are related to critical tasks of successive life periods and to changing perspectives related to one's place in the life cycle.

Based on such thinking, the current researchers felt that middle adults would perceive a study of aging to be related to their critical life tasks and would, therefore, volunteer to participate in the workshops utilized in this study.

Variables Related to Attitudes Toward the Aged

Numerous variables have been identified as being related to a person's attitudes toward aging and the aged. A brief overview shall be given of these variables and the research findings regarding them.

Age

The research related to the interaction between age and attitudes toward the aged gives contradictory results. Some studies have shown that the elderly themselves exhibit negative attitudes toward their own age group (Kogan and Wallach, 1961; Merrill and Gunter, 1969; Tuckman et al., 1953; Tuckman and Lorge, 1954a, 1958a; Gillis, 1972; Thorson, Whatley, and Hancock, 1974; Thorson, 1975b). However, there have been studies which indicate that older adults have fewer

stereotypes and negative views about older adults (Knapp and Moss, 1963; Kogan and Wallach, 1961; Neugarten and Gutman, 1958; Newfield, 1971; Wolk and Wolk, 1971; Brown, 1967; Campbell, 1971). No relationship between age and attitudes toward older adults was reported by Hickey and Kalish (1968), Logan (1961), Merrill and Gunter (1969), Troll and Schlossberg (1970), and Thorson (1975a).

Thomas and Yamamoto (1975) indicated that the 5th, 7th, 9th, and 11th grade students involved in their study exhibited favorable attitudes towards adults of all ages. The researchers felt there was a complex nature to the children's attitudes as ". . . the positive attitudes showed an increase with adult age on some attributes and a decrease on others" (p. 128). In another study involving children, Seefeldt, Jantz, Galpur, and Serock (1977) found a dual nature in the orientation towards older adults with the subjects evidencing positive affective feelings, but negative attitudes toward the physical aspect of aging. The children also gave negative responses regarding the prospect of their own aging. It is possible that the attitudes of children are not static but are open to change. In their review of existing research, Bennett and Eckman (1973, p. 585) state: "It is conceivable that views of the young toward aging could become more positive as they themselves approach old age."

Weinberger and Millham (1975) found that when they asked college students to rate a "representative" 70-year-old and a "representative" 25-year-old along various dimensions (self-satisfaction, personality characteristics, dependency, adjustment, and adaptability), the 70-year-old was placed in a less favorable light. These same students were asked to rate a 70-year-old and a 25-year-old personalized

through an autobiographical sketch and an accompanying picture with both described in a comparable and similarly neutral manner. In this instance, the 70-year-old was rated as more self-accepting, satisfied with life, adjusted and adaptable than the 25-year-old. Weinberger and Millham concluded (p. 348):

It would appear that the expression of belief statements toward a group is a separate response system from judgments of a particular member of that group. In the case of the elderly, there is a definite conflict between negative attitudes toward the group and a positive response tendency toward a personalized older person.

In considering middle-aged attitudes toward the aged in a three-generational study, Kalish and Johnson (1970) found that the middle generation evidenced more negative attitudes toward older people and were more fearful of the aging process. The findings of the Harris Poll (1975, p. 48) were of an opposite nature:

It can be concluded, furthermore, that the image of old people is lowest among the young, that it peaks among those 40 to 64, and that it declines again among those 65 and over.

From these research efforts, it is difficult to reach any conclusions regarding the influence of age on a person's attitudes toward aging and the aged; therefore, the researchers felt it was appropriate to discover if there was any variation in the attitudes toward older persons as the middle-agers of this study increased in age.

Attitudes Toward Life

While there has been little research on the influence of a person's attitudes toward life and one's attitudes toward the aged, what research has been done seems mainly to have centered around the

elderly or adolescents. The following generalizations were made by Harris regarding the interaction of these two variables:

There is no question that one's general satisfaction with his own life affects one's views of the world as a whole and, moreover, his view of specific groups of people. In evaluating most old persons, that portion of the public with the highest life satisfaction scores was also more positive in evaluating older persons . . . (p. 163).

As people become more satisfied with their own lives, they also feel less threatened by, and more generous toward, other people as well. Improvement of the quality of life for the less privileged of all ages will inevitably boost society's attitudes toward all minorities, including the fastest growing minority of them all--the elderly (p. 164).

In their 1977 study involving 4-H adolescents, Trent, Glass, and Crockett found that the youth who had the highest purpose in life (PIL) scores also evidenced significantly more positive attitudes toward the aged than did those with lower PIL scores. Glass, Trent, and Rice (1978) found the same interaction to hold true in their study involving a population of secondary school students. Such findings led the researchers to include this variable in the current research efforts. It was felt that the purpose in life which an adult experiences during the mid-life period of reassessment will influence how that individual perceives his or her own aging process, the aging of others, and older adults in general.

Education

As a result of numerous studies, the education level of an individual has been identified as influencing the attitudes exhibited toward the aged. Campbell (1971), Brown (1967), Thorson (1975a,b) and Thorson et al. (1974) found a positive relationship between these

two variables. Gillis (1973, p. 517) reported that an earlier 1972 study did not confirm this relationship while her 1973 study did show that as the level of education increased, the attitudes toward older adults became more positive. The study conducted by Trent, Glass, and Crockett (1977) showed no significant relationship between attitudes and education.

While there is some research evidence that level of education can positively influence attitudes toward older persons, there is little evidence as to why this interaction occurs. One explanation may be found in Thorson's speculation (1975a) that persons with fewer years of education tend to more readily accept untrue stereotypes of old age. He goes on to state that individuals with more years of education may have available a more positive role model of the aged.

Race

There has been little research regarding the relationship of race to attitudes toward the aged and that which is available is contradictory. Trent, Glass, and Crockett (1977) report significantly more positive attitudes toward older persons among white respondents than among non-whites. Significant racial differences in attitudes were also reported by Newfield (1971) and McTavish (1971) while Thorson (1975a) and Glass, Trent, and Rice (1978) found no significance relating to race.

Sex

As with many other variables, the evidence regarding sex as a factor influencing attitudes toward older adults is conflicting. Britton and Britton (1970), Kogan (1961b), Rosencranz and McNevin (1969), Troxler (1971), Tuckman and Lorge (1953a,b), and Glass, Trent, and Rice (1978) report no association with sex. In other research efforts (Kogan and Shelton, 1962a; Neugarten and Gutmann, 1958; Perril, 1963; Merrill and Gunter, 1969; Tuckman and Lorge, 1952a), it was found that women hold more negative views than men and their attitudes tend to be somewhat more stereotypic. Silverman (1966) and Troll and Schlossberg (1970) indicate that males hold more negative attitudes toward the aged and aging than do females.

Income

Little research has been carried out to determine the influence of income level on attitudes toward older adults. Thorson et al. (1974) theorized that subjects who were older, had less education and had more negative views of old age would have less income. The more affluent would have more positive attitudes as their role models for aging would have more income for retirement, better health and nutrition, and more housing options. The researchers felt that income level would have an impact on attitudes toward the elderly for it would, in part, determine the types of experiences (positive or negative) which the individual would have with aging family and peers.

Length of Time Spent with the Elderly

In the literature, length of time spent with the elderly has been interpreted in several ways. Conflicting results have been reported when this variable has been interpreted as years working with the aged and studying gerontology. Gunter (1971) and Gillis (1972) found that positiveness in attitude toward the aged increased as length of time increased while Gillis' 1973 study showed the opposite relationship, and Campbell (1971) found that length of time in nursing and personal experiences with the elderly in childhood and adult life had no significant influence on the acceptance of stereotyped statements.

As was found in Tuckman and Lorge (1958a), when length of time was interpreted as the length of time spent in direct contact with older adults, the attitudes increased positively with increased time spent in direct contact. The presence of a parent or grandparent in the home could be interpreted as one means of direct contact; however, two studies (Trent, Glass, and Crockett, 1977; Glass, Trent, and Rice, 1978) found that the presence or lack of a grandparent in the home seemed to leave little influence on the attitudes of the respondents. This same result was evidenced by Weinberger and Millham (1975). In contrast, Merrill and Gunter (1969) in their study on patients' attitudes toward older adults reported that the only respondent who preferred an older hospital roommate was a woman in her twenties who had lived in a household with five older adults since childhood.

Birth Order

It has been previously hypothesized (Trent, Glass, and Crockett, 1977) that first-borns would be more likely to have positive attitudes toward life in general and toward the elderly in particular due to the special treatment accorded first-borns in American society. Conflicting evidence is found in the literature regarding this hypothesis. It should be noted that there are other factors which interact with birth order and can influence its significance. In his study with freshmen and sophomore college students, McClure (1971, p. 74) stated:

First there may be attitudinal and behavioral choice consequences of being first born which influence school achievement. Second, these attitudes are not related in any simple way to birth order. There are interactions with sex, income and size of family in this study before birth order effects become significant.

Using a population of 21 first-born and 22 later-born undergraduate students, MacDonald (1971, p. 132) administered an ethical attitudes scale and a poverty attitudes scale. The researcher found there was a tendency for first-borns to score more in the direction of the ethics of social responsibility than later-borns. Stronger negative attitudes toward the poor were also evidenced by the first-borns.

While no studies were found in the literature investigating the relationship between birth order and purpose in life, studies were found which reported that birth order has a significant effect on self-esteem and self-concept (Coppersmith, 1967; Eisenman, 1970; Rosenberg, 1965). It was found that first-borns had significantly higher self-esteem or self-concepts than did later-borns. Stotland and Dunn (1962) and Bartelt (1972) found no significant relationship

between birth order and self-esteem or self-concept. It is interesting to note that the Eisenman study (1970) suggested that low self-esteem may be related to prejudice toward the physically handicapped. Since many persons assume that being physically handicapped is a part of being old, it is logical to assume that low self-esteem may be related to prejudice toward older adults.

Trent, Glass, and Crockett (1977) and Glass, Trent, and Rice (1978) found no significant relationship between birth order and attitudes toward older persons. As the current study involved a different age group, the researchers felt it was appropriate to consider this variable.

Size of Family

Although there has been little research on the relationship between family size and attitudes, it was included for analysis in this study. The consideration here was the size of the family in which the adult grew up, for it would seem that the number of children in a family would have an influence on the attitudes of the members of the family.

In McClure's study (1971, p. 74) of birth order and school-related attitudes, significant differences in choice of behaviors occurred only in larger families with four or more siblings. Neither Trent, Glass, and Crockett (1977) or Glass, Trent, and Rice (1978) found a significant relationship between family size and attitudes held toward the aged; however, in the 1978 study, it was found that those adolescents with seven or more brothers and/or sisters had the most positive attitudes.

Courses in Gerontology

There is conflicting evidence in the literature on the effectiveness of courses in Gerontology in changing attitudes toward aging and the aged. As a result of her research effort, Hudis (1974, p. 314) concluded that a course which provides positive, constructive knowledge about aging and the aged can lead to positive, constructive attitudes toward aging and the aged. Trent, Glass, and Crockett (1977) and Glass, Trent, and Rice (1978) found similar results in their studies with adolescents. Seefeldt et al. (1977, p. 310) speak to the need for educators to assess their own attitudes toward the elderly and ". . . to plan constructive educational experiences that can foster the development of positive attitudes toward aging and the elderly."

The conclusion that courses in gerontology are ineffective in changing attitudes was reported by Tuckman and Lorge (1952b, 1954b), Troll and Schlossberg (1970), and Fletcher et al. (1971). In one study involving college students, Tuckman and Lorge (1952b) presented objective information on the physiological and psychological changes associated with aging with no efforts made to dispel beliefs and stereotypes about the elderly. The course fostered little positive attitude change and the researchers hypothesized that the objective nature of the course may have only served to reinforce the fears or concerns which the students had about their own aging and may have offset any positive aspects of the material presented. Acknowledging the above research evidence, the researchers developed the workshop series, which formed the educational experiences for this study, to deliberately bring about positive attitude change.

Other Variables

There were numerous other variables included in this study for which there could be found no previous investigation in research studies. It was felt by the researchers that these variables would be particularly salient to the middle years and would have an impact on middle-age attitudes toward aging and the elderly. Included in these variables were: whether the parents are living or deceased, whether the parents are retired, the parents' level of adjustment to retirement, the health status of the parents, whether the parents are financially dependent on the respondent, and the living arrangement of the parents. Also, because one's religious training and beliefs may influence his or her attitudes, it was felt that religious preference might be a variable related to one's attitudes toward aging and the elderly.

Objectives

Based on the research questions, the review of literature and the conceptual framework, the following specific objectives were established for the project.

1. To determine the attitudes of middle-aged adults toward older persons.
2. To determine if the following personal and situational characteristics are associated with the attitudes of middle-aged adults toward the aged: age, purpose in life, education, race, sex, region, family income, whether older adult lived in home as a child, birth order, number of brothers and sisters (siblings), whether parents are living or not.

whether parents are retired, parents' level of adjustment to retirement, health status of parents, whether parents are financially dependent on respondent, living arrangement of parents, and religious denomination.

3. To determine to what extent middle-aged adults' attitudes toward older persons can be changed in a positive direction through participation in a series of six two-hour workshop sessions.
4. To determine to what extent the following personal and situational characteristics are associated with changes in middle-aged adults' attitudes toward the aged: age, purpose in life, education, race, sex, region, family income, whether older adult lived in home as a child, birth order, number of brothers and sisters (siblings), whether parents are living or not, whether parents are retired, parents' level of adjustment to retirement, health status of parents, whether parents are financially dependent on respondent, living arrangement of parents, and religious denomination.
5. To determine whether changed attitudes persist after a two- to four-month time lapse.

METHODOLOGY

Research Design

This study utilized the pretest → treatment → posttest → follow-up posttest experimental design (Figure 1). It involved determining the attitudes of middle-aged adults toward the aged and the relationship of those attitudes to various personal and demographic variables. The major question investigated was: Can middle-aged adults' attitudes toward older persons be changed in a positive direction through participation in a planned educational experience? A series of six two-hour workshops was developed for use in this study.

Population and Sample

The population for this study consisted of middle-aged volunteer learners in the State of North Carolina. The researchers were attempting to get approximately 100 persons in both the experimental and control groups. Although publicity for the workshops stressed the participation of persons from age 30 to 60, no learners were refused the educational experience because of age.

In securing the sample, efforts were made to insure geographical representation. The State was divided into three regions (East, Central, and West), and a total of eight educational institutions and organizations from throughout the State were initially selected for participation in the study. A member of the research team contacted the institutions and organizations by phone and asked if they would be willing to offer the workshop to their clientele. Of the eight institutions contacted, only one was unable to sponsor the workshops.

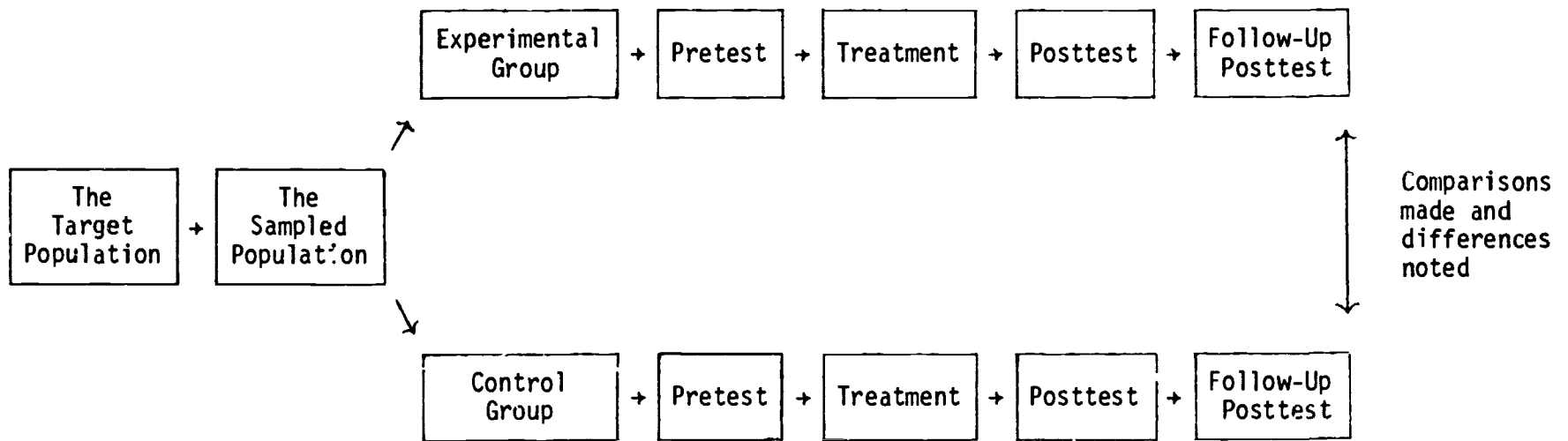


Figure 1. Model for evaluating the influence of a workshop on aging on middle-aged adults' attitudes toward older persons

A replacement was found for that institution. The following is a breakdown, by region, of the institutions and organizations which agreed to conduct workshops:

- East - one technical college division of continuing education
- one four-year State university division of continuing education
- Central - one four-year private college
- one Agricultural Extension Service Office
- one technical college division of continuing education
- West - one four-year State university division of continuing education
- two Agricultural Extension Service offices

Each location carried out its own recruitment of learners. This recruitment was done through the normal procedures used to publicize courses and to recruit learners. The individuals who responded to this recruitment process and participated in the workshop series comprised the experimental group.

Of the original agencies which agreed to sponsor the workshops, only one, the four-year private college (Central Region), was unable to enroll enough persons to warrant conducting the learning experience. They expressed an interest in utilizing the workshop materials but were unable to reschedule the workshop for inclusion in this study. The two technical colleges were unable initially to offer the workshop series due to low enrollment; however, through rescheduling, they were able to participate in the study.

In October, November, and December, 1980, all of the workshop sponsors, except the technical colleges, carried out the educational activities through either one session a week for six weeks or two sessions a week for three weeks. The technical colleges offered the workshops in January, February, and March, 1981.

In December, the researchers determined that more workshop series would be needed in order to obtain the projected number of participants for the experimental and control groups. Since the Agricultural Extension Service offices had been the most successful in recruiting volunteer learners, five more of these offices were contacted regarding their sponsorship of the workshop. Three agreed to participate--one in the East Region and two in the Central Region. The agencies conducted the workshops in January, February, and March, 1981. Another four-year private college in the Central Region agreed to include the educational activity in their continuing education offerings for January; however, the workshop was cancelled due to low enrollment.

In all, ten institutions and organizations eventually participated in the study. These agencies, by region (Figure 2), were:

- East - one Agricultural Extension Service Office
 - one technical college division of continuing education
 - one four-year State university division of continuing education
- Central - three Agricultural Extension Service Offices
 - one technical college division of continuing education

WEST

CENTRAL

EAST

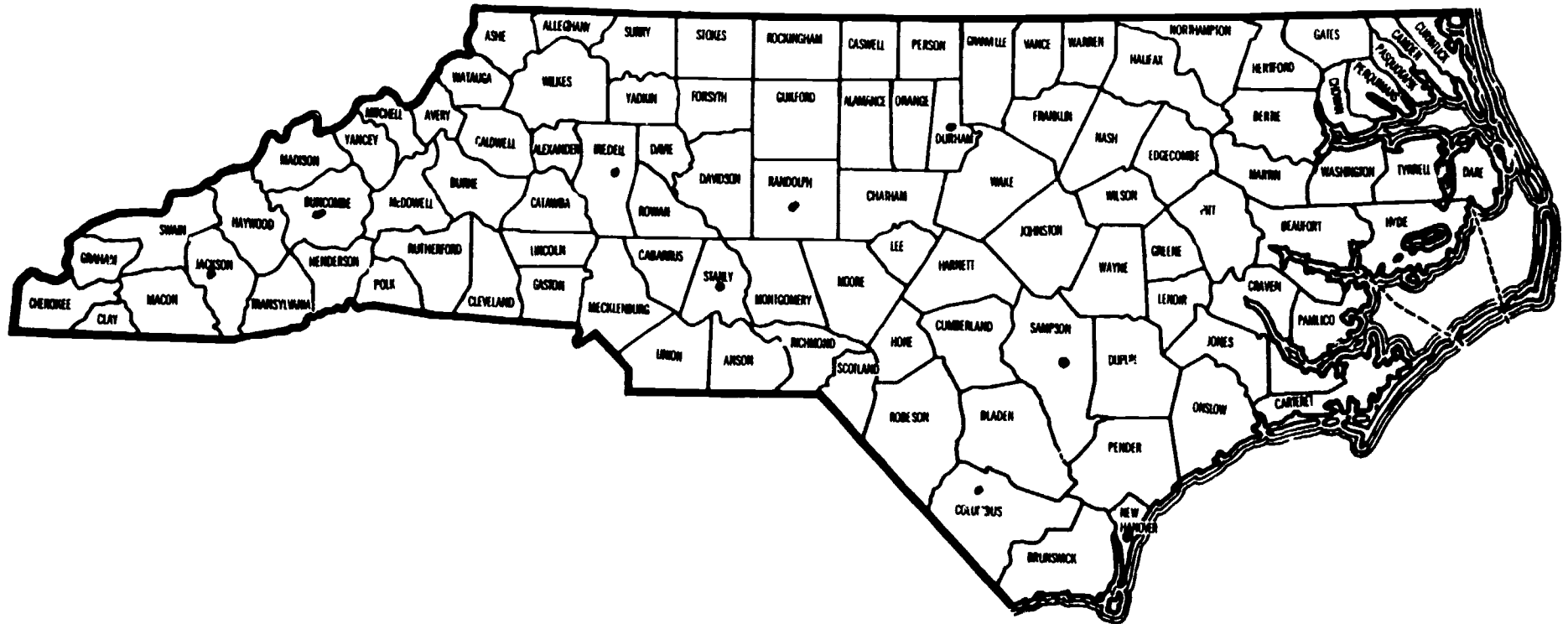


Figure 2. Distribution of institutions and organizations selected for this study

West - one four-year State university division of continuing education

two Agricultural Extension Service Offices

The control groups were selected by each institution or organization to be similar in characteristics with those participating in the workshops. For example, in a technical college or university setting, another evening class meeting at the same time became the control group; and, in an Agricultural Extension Service setting, clientele not enrolled in the workshop (often a Homemakers Club) became the control group.

The experimental group consisted of 89 volunteer learners who participated in the workshop series and the control group numbered 72.

Development of Workshop Series

The lesson plans developed for the workshop series were a revision of lesson plans used in two previous studies (Trent, Glass, and Crockett, 1977; Glass, Trent, and Rice, 1978).

For the earlier study which involved 4-H youth, the researchers spent considerable time reviewing the literature on attitudes, attitude formation, attitude change, and attitudes toward older adults. Attention was also given to the literature dealing with the needs, problems, and satisfactions of older adults. At the completion of the review of literature, the researchers came to the conclusion that the lesson plans should be developed for use by lay persons who worked with young people and that the materials should be designed to be used within a reasonable time period.

The following steps were followed by the researchers in developing the Leader's Guide for the 1977 study:

1. Study the literature.
2. Develop content categories.
3. Set objectives for each session.
4. Brainstorm different resources and methods.
5. Develop step-by-step Leader's Guide for six two-hour sessions.
6. Revise and edit Leader's Guide.
7. Print Leader's Guide.
8. Accumulate and/or develop materials needed for each session.

In the 1978 study (Glass, Trent, and Rice), the lesson plans were revised from a six two-hour study to a study consisting of 10 one-hour sessions for use in a public school setting.

On reviewing the lesson plans utilized in the previous studies, the researchers felt that many of the activities and materials could be used, with some revisions, with an adult audience. This decision was based on a general knowledge of adult learning theories and on past experience in teaching adults. It was decided that the format of six two-hour sessions would be retained for this study.

The following steps were followed by the researchers in developing the Leader's Guide for the workshop series:

1. Review the Leader's Guides previously developed.
2. Develop content areas for six two-hour sessions.
3. Set objectives for each session.
4. Determine additions, deletions, and alterations needed to make the resources and methods more adaptable to adults.
5. Develop step-by-step Leader's Guide for six two-hour sessions.

6. Revise and edit Leader's Guide.
7. Print Leader's Guide.
8. Accumulate and/or develop materials needed for each session.

A copy of the Leader's Guide can be found in Appendix A.

Selection and Orientation of Workshop Leaders

Each institution and organization was responsible for selecting a workshop leader. The leaders came from a variety of backgrounds; some were chosen because of their interest in the field of aging and some because of their affiliation with the sponsoring agency. The researchers did not conduct any of the workshops and each site used a different workshop leader.

In order to acquaint the workshop leaders with the details of the Leader's Guide, an orientation session was scheduled with each leader well in advance of the proposed starting time for the study. A member of the research team traveled to the location of the workshop leader to personally orient each leader to the Leader's Guide and the materials to be used. All the materials needed for the study were given to the leader at that time. Opportunity was provided for questions and discussions on unclear aspects of the project or learning experiences. The questionnaires and the pretest-posttest procedures were also discussed.

Instrumentation and Data Collection

The Kogan O.P. Scale (1961) was utilized to measure the middle-aged adults' attitudes toward older adults (Appendix B). The Kogan Scale consists of 34 Likert-type statements about older adults,

17 positively and 17 negatively stated. The respondents are asked to agree or disagree with the statements on a scale of 1 to 6 which represent responses varying from "strongly agree" to "strongly disagree." Silverman (1966) has reported that the Kogan Scale has predictive validity and low response-set bias. McTavish (1971) indicates that separate positive and negative scale scores are derived and reliability coefficients of .66 to .83 are reported--higher for the negative scale. For the current study, the mean was tabulated on a scale of 1 to 6 and not on the summed total for the 34 items.

The independent variable of purpose in life was measured by the Crumbaugh and Maholick (Crumbaugh, 1968) Purpose in Life Test (PIL). The PIL is designed to measure the degree to which a person experiences a sense of meaning and purpose in life. The scale was developed to test Viktor Frankl's thesis that when purpose in life is not found, the result is existential frustration. The PIL consists of 20 Likert-type items scaled from 1 to 7 with total scores ranging from 20 (low purpose) to 140 (high purpose).

Split-half correlations of .85 (Crumbaugh, 1968) and .81 (Crumbaugh and Maholick, 1964) have been reported. Both construct and criterion (or concurrent) validity of the PIL have been assessed. Crumbaugh (1968) predicted correctly, from the standpoint of construct validity, the order of means of four "normal" populations. The criterion or concurrent validity was evaluated by two measures. The PIL scores correlated .47 with ministers' ratings of their parishioners and .38 with therapists' ratings of an outpatient sample.

A general information questionnaire was developed by the researchers to elicit personal and demographic data from participants in the study (Appendix C).

The general information questionnaire and the PIL were utilized as pretests only, while the Kogan O.P. Scale was utilized as pretest, posttest, and follow-up posttest. The workshop leaders administered the pretest early in the first workshop session. The posttest was administered by the workshop leaders at the conclusion of the final session. The pretests were mailed to the researchers shortly after the first session with the adults. The posttests were mailed following the last session.

The follow-up posttests were administered by the researchers. The Kogan O.P. Scale was mailed to both experimental and control groups two to four months after the completion of the workshop series, with the exception of three locations which did not complete their workshops in time to be included in the follow-up posttests. After two weeks, a second letter, including an O.P. Scale, was mailed to those individuals who had not responded to the first request.

Analysis of Data

The research instruments used were designed to allow a quantitative measure of response regarding the middle-aged adults' attitudes toward older adults, as well as their attitudes toward life and the other independent variables considered.

The instruments of those respondents who did not fully complete the pretest and posttest of the Kogan O.P. Scale were discarded. These deletions resulted in a total of 162 usable instruments out of a

possible 201 for those respondents who completed both the pretest and the posttest. Of the total usable instruments, 89 were in the treatment group and 73 in the control group. There were 89 usable instruments for those responding to all three administrations of the Kogan O.P. Scale, 49 in the experimental group and 40 in the control group.

The processing of the data and statistical procedures was carried out at the Triangle Universities Computation Center using the Statistical Analysis System (SAS). Procedures used were determined through consultation with Sandra Donaghy, Associate Statistician, North Carolina State University.

Data analysis contained four stages:

1. Assessment of the attitudes toward older people of a sample of middle-aged adults in North Carolina.
2. Determination of the relationship between middle-aged adults' attitudes toward older persons and personal and demographic characteristics of the respondents.
3. Assessment of change in middle-aged adults' attitudes toward older people immediately following and two to four months after participation in a workshop series on aging.
4. Determination of the relationship between change in attitudes and personal and demographic characteristics of the respondents.

A least squares (LS) analysis was used to perform the analysis of variance to establish F values for the significance of the relationship between the various dependent variables and the independent

variables (Searle, 1971). This analysis was appropriate due to the survey-type experiments utilized in this research. In survey-type experiments, it is not possible to control or balance out all treatment factors or variables. For this reason, LS analysis is used to adjust for the unbalanced effect of the data. The data for this study shall be presented through the use of LS means. The LS means are the estimated treatment effects after adjusting for the effects of the other variables involved.

A LS analysis of the data was computed on the full statistical model using all of the independent variables: sex, age, race, marital status, education, religious denomination, family income, number of brothers and sisters, birth order, whether or not parents are living, whether or not parents are retired, parents' adjustment to retirement, parents' living arrangement, whether or not older adults lived in home as a child, whether or not older adults are currently living in home, parents' financial dependency, parents' health, geographic region, workshop location within region, and "purpose in life." In looking at the results from these analyses, a shorter model was developed to include any variable which tended to show up as significant in several of the analyses. This procedure was carried out to remove those variables producing only random variance but taking degrees of freedom out of the error. A LS analysis was then computed on the shorter model which included sex, age, race, marital status, education, family income, number of brothers and sisters, whether or not parents are retired, parents' adjustment to retirement, parents' financial dependency, parents' health, geographic region, workshop location within region, and "purpose in life."

A .10 level of significance was used throughout the study.

RESULTS

The major findings of the study are presented in this chapter. A profile of the participants is presented in the first section, with the remainder of the chapter devoted to hypothesis testing.

Profile of Participants

A total of 162 persons completed instruments which were used in the analysis of this research. The personal and situational variables selected for use in the study were: sex, age, race, marital status, education, religious denomination, family income, number of brothers and sisters, birth order, whether or not parents are living, whether or not parents are retired, parents' adjustment to retirement, parents' living arrangement, whether or not older adults lived in home as a child, whether or not older adults are currently living in home, parents' financial dependency, parents' health, geographic region, and workshop location within region. Table 1 shows the frequency distribution of the respondents by characteristic, number, and percent.

An additional characteristic, "purpose in life," was used as an independent variable in parts of the analysis.

The participants were predominantly white (81.5 percent) and female (84.6 percent).

Ten and a half percent were 65 years of age and above, and 24.7 percent were below 35. The other 64.8 percent were between 35 and 64 years.

In terms of marital status, the largest percentage of the respondents were married (72.8 percent).

Table 1. Frequency distribution of respondents by personal and situational characteristics (N = 162)

Characteristic	N	%	Characteristic	N	%
<u>Sex</u>			<u>Race</u>		
Female	137	84.6	Nonwhite	30	18.5
Male	25	15.4	White	132	81.5
Total	162	100.0	Total	162	100.0
<u>Age</u>			<u>Religion</u>		
Below 35	40	24.7	Baptist	66	40.7
35-44	40	24.7	Methodist	43	26.6
45-54	34	21.0	Presbyterian	22	13.6
55-64	31	19.1	Other Protestant	22	13.6
65 and over	17	10.5	Other	8	4.9
Total	162	100.0	Non-respondent	1	0.6
<u>Marital Status</u>			<u>Family Income</u>		
Never married	14	8.7	Below \$6000	15	9.3
Married	118	72.8	\$6000-11,999	30	18.5
Widowed	13	8.0	\$12,000-19,999	36	22.2
Divorced or separated	17	10.5	Over \$20,000	73	45.1
Total	162	100.0	Non-respondent	8	4.0
<u>Education</u>			<u>Siblings</u>		
11th grade or less	9	5.6	Only child	18	11.1
High school diploma	42	25.9	One or two	59	36.4
Some college	46	28.4	Three or four	46	28.4
Bachelor's degree	46	28.4	Five or six	19	11.8
Graduate degree	19	11.7	Seven or more	18	11.1
Total	162	100.0	Non-respondent	2	1.2
<u>Birth Order</u>			<u>Parent Living Arrangement</u>		
First	55	33.9	Own home	106	65.4
Second	46	28.4	Your home	5	3.1
Third	19	11.7	Other living arrangement	10	6.2
Fourth	16	9.9	Non-respondent	41	25.3
Fifth or later	23	14.2	Total	162	100.0
Non-respondent	3	1.9	<u>Older Adult in Home</u>		
Total	162	100.0	Yes	7	4.3
<u>Parents Living</u>			No	146	90.1
One parent living	45	27.8	Non-respondent	9	5.6
Both are	65	40.1	Total	162	100.0
Neither are	47	29.0			
Non-respondent	5	3.1			
Total	162	100.0			

Table 1 (continued)

Characteristic	N	%	Characteristic	N	%
<u>Parents Retired</u>			<u>Older Adult in Home as Child</u>		
One parent retired	49	30.3	Yes	59	36.4
Both retired	28	17.3	No	100	61.7
Both working	31	19.1	Non-respondent	3	1.9
Both deceased	41	25.3	Total	162	100.0
One parent working, one parent deceased	5	3.1	<u>Parents' Financial Dependency</u>		
Non-respondent	8	4.9	Yes	7	4.3
Total	162	100.0	No	128	79.0
<u>Parents' Adjustment to Retirement</u>			Non-respondent	27	16.7
Successful	54	33.3	Total	162	100.0
Moderately successful	25	15.4	<u>Parents' Health</u>		
Fair	11	6.8	Excellent	29	17.9
Poor	2	1.3	Good	52	32.1
Non-respondent	70	43.2	Fair	34	21.0
Total	162	100.0	Poor	10	6.2
<u>Location</u>			Non-respondent	37	22.8
1 Central	12	7.4	Total	162	100.0
2 Central	19	11.7	<u>Area</u>		
3 Central	18	11.1	Central	76	46.9
4 Central	27	16.7	East	36	22.2
5 East	6	3.7	West	50	30.9
6 East	23	14.2	Total	162	100.0
7 East	7	4.3	<u>Group</u>		
8 West	14	8.7	Experimental	89	54.9
9 West	24	14.8	Control	73	45.1
10 West	12	7.4	Total	162	100.0
Total	162	100.0	<u>Occupation</u>		
<u>Professional & Technical</u>			Professional & Technical	50	30.9
<u>Managers & Administrators</u>			Managers & Administrators	14	8.6
<u>Farmers & Laborers</u>			Farmers & Laborers	4	2.5
<u>Sales</u>			Sales	1	0.6
<u>Clerical</u>			Clerical	20	12.4
<u>Service</u>			Service	14	8.6
<u>Housewife</u>			Housewife	30	18.5
<u>Non-respondent</u>			Non-respondent	29	17.9
<u>Total</u>			Total	162	100.0

There were only nine participants (5.6 percent) who had less than a high school education; 25.9 percent had a high school diploma. The other 68.5 percent had at least some college education. Sixty-five persons (40.1 percent) had a Bachelor's degree or more education. The persons involved in this research project were certainly "educated people."

The majority of the respondents (67.3 percent) had family incomes of \$12,000 or more; 45.1 percent had an income of \$20,000 or above.

Approximately two-thirds (67.9 percent) of the respondents had at least one of their parents still living. Seventy-nine (49.2 percent) felt that their parents' adjustment to retirement was moderately successful to successful. Only 4.3 percent of the parents were financially dependent on the respondents. Fifty percent estimated their parents' health to be good to excellent. Only seven persons (4.3 percent) had an older adult in their home at the time of the research, but fifty-nine individuals (36.4 percent) reported having an older adult in their home when they were children.

Attitudes of Middle-Aged Adults Toward the Aged

The first objective of the study was to determine the attitudes of middle-aged adults toward older persons. Past gerontological research has indicated that all age groups in American society view the aged somewhat negatively. As reported earlier in the Conceptual Framework chapter of this report, there is evidence to support the idea that middle-aged adults also hold negative attitudes toward older persons. It was suggested that, since mid-life is the time when persons first become aware of their own aging, middle-aged

persons are quite negative in their attitudes toward older individuals. It was expected that the participants in this study would also have negative attitudes toward the aged.

Prior to exposure to the educational experience used in the study, all persons, both treatment and control, were asked to respond to the Kogan O.P. Scale. The Kogan O.P. Scale registers responses to 34 statements about older persons ranging from "strongly disagree" to "strongly agree" on a range of from one to six (see Appendix B). A mean score was calculated on a scale of 1 to 6 and not on a summed total of the 34 items.

The subjects' mean scores ranged from a low of 2.79 to a high of 5.56. The overall mean score for the total sample was 4.21 (see Figure 3). If a score of 3.5 can be considered as a neutral position, then the sample as a whole might be characterized as possessing a positive attitude toward older adults.

Looking at the data another way, it was found that only nine adults, or 5.6 percent, had a pretest mean score of 3.5 or lower. This means that 153, or 96.5 percent, of the adults had mean scores above 3.5, thus indicating that a majority of the adults possessed positive attitudes toward older persons as measured by the Kogan O.P. Scale.

Of the nine adults who had a mean score of 3.5 or lower, three were 65 years of age or older; none were below 35. This means that only six middle-aged adults out of the 105 (5.7 percent) between the ages of 35-64 had mean scores of 3.5 or lower. The middle-aged adults of this study held positive attitudes toward older persons at the time of the pretest.

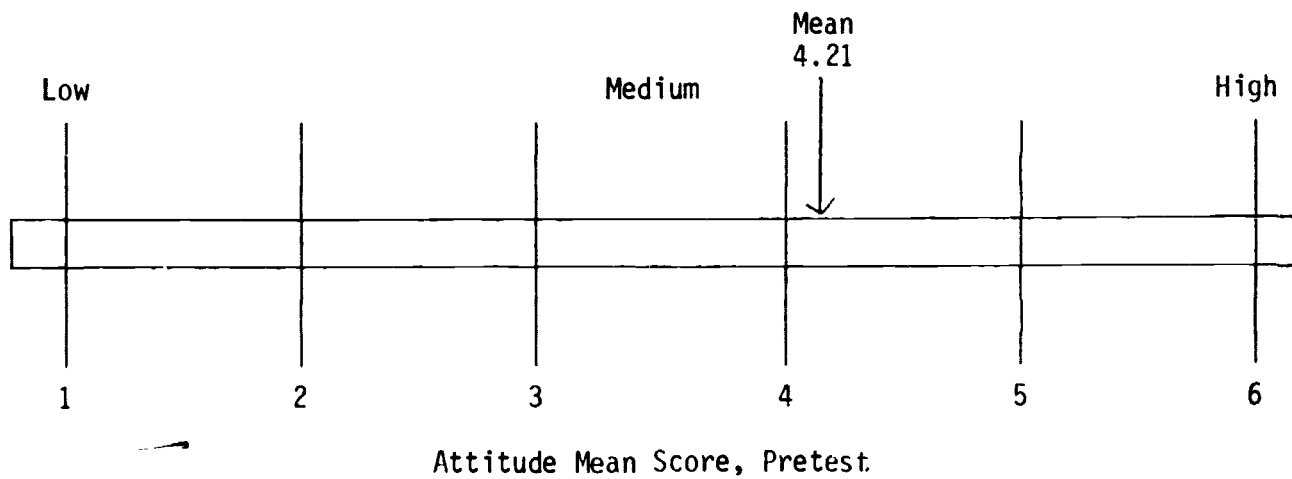


Figure 3. Attitude toward older persons, pretest, mean score on Kogan O.P. Scale

Relationships between Respondent Characteristics
and Attitudes Toward Older Persons

The second objective of the study was to determine whether the attitudes of the middle-aged adults were related to such personal and situational characteristics of respondents as treatment or control group, sex, age, race, marital status, education, religious denomination, family income, number of brothers and sisters, birth order, whether or not parents are living, whether or not parents are retired, parents' adjustment to retirement, parents' living arrangement, whether or not older adults lived in home as a child, whether or not older adults are currently living in home, parents' financial dependency, parents' health, geographic region, workshop location within region, and purpose in life. A review of the research on attitudes and attitude formation indicated that any or all of these variables might have an influence upon the attitudes middle-aged adults hold toward older persons.

As a first step in the analysis, a least squares (LS) analysis was computed which included all the independent variables listed above. This full model was utilized in the LS analysis of the pretest and posttest attitude scores, the difference between the pretest and posttest attitude scores, the follow-up posttest attitude scores, and the difference between the posttest and follow-up posttest scores. Any variable which tended to show up as significant or approached significance in several of the analyses were then used in the final LS analyses. It was hoped that such a procedure would help eliminate a number of variables which were not related to middle-aged attitudes

toward older persons, but were only producing random variation and were, thus, taking degrees of freedom out of the error.

As a result of this procedure, the following variables did not appear to be significantly related to the adults' attitudes toward the aged and were not used in further LS analyses: religious denomination, birth order, whether or not parents are living, parents' living arrangement, whether or not older adults lived in home as a child, and whether or not older adults are currently living in home. Table 2 reports the LS analysis which was used to determine if any significant relationships existed between attitudes toward the aged and the remaining personal and situational characteristics of respondents. The results are discussed in the sections that follow.

Treatment Group

It was expected that there would be no relationship between attitudes toward the aged and the treatment group. A "no relationship" would indicate that the experimental and control groups were very similar in their initial attitudes toward the aged. Table 2 shows a probability level of 1.000, a perfect correlation, so it appears that there was no difference between the experimental and control groups at the beginning of the study. Table 2 indicates that both groups had an LS mean of 4.21 on the pretest.

Sex

While the females had a higher LS mean than males (Table 3), the differences between the sexes were not significant.

Table 2. Relationships between attitudes toward the aged, pretest, and personal and situational characteristics of respondents (N = 162)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.056	0.33	0.5692
Age	4	1.064	1.56	0.1896
Marital status	3	1.041	2.04	0.111
Parents retired	5	0.273	0.32	0.9000
Retirement adjustment	4	0.508	0.75	0.5632
Parents' health	4	0.451	0.66	0.6194
Education	4	0.386	0.57	0.6878
Race	1	0.408	2.39	0.1246
Family income	4	1.238	1.82	0.1305
Siblings	5	0.505	0.59	0.7080
Parents' dependency	2	0.351	1.03	0.3602
Purpose in life	1	1.174	6.89*	0.0099
Region	2	0.003	0.01	0.9913
Location (region)	7	1.395	1.17	0.3256
Group	1	0.000	0.00	1.0000

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.412$.

Age

While the younger age groups had higher attitude scores, and the scores tended to decrease as persons got older (Table 3), the relationship between age and attitudes toward older persons was not significant (Table 2).

Marital Status

Marital status was not significantly related (.10 level) to attitudes, though the relationship did approach significance (.1111). Table 3 indicates that the "never married" had the highest attitude scores (4.48) when compared to the married (4.10), widowed (4.16), and divorced or separated (4.10).

Parents Retired

The relationship between whether or not parents were retired and attitudes toward older persons was not significant. Those respondents (Table 3) who had both parents retired had the highest LS mean (4.33) and those who had one parent working and one parent deceased had the lowest LS mean (4.12).

Retirement Adjustment

How the respondents' parents adjusted to retirement did not appear to be related to attitudes toward older persons (Table 2). Those who did perceive their parents' adjustment to retirement to be "successful" or "moderately successful" did have higher LS means than those who saw their parents' adjustment to be "fair" or "poor" (Table 3).

Table 3. Attitudes toward the aged by personal and situational characteristics (N = 162)

Characteristic	Pre LS Mean	Post LS Mean	Difference LS Mean
<u>Sex</u>			
Female	4.24	4.12	-0.12
Male	4.18	4.23	0.05
<u>Age</u>			
Below 35	4.32	4.32	0.00
35-44	4.24	4.34	0.02
45-54	4.29	4.28	-0.01
55-64	4.21	4.15	-0.06
65 and over	3.90	3.77	-0.12
<u>Marital Status</u>			
Never married	4.48	4.39	-0.09
Married	4.10	4.20	0.10
Widowed	4.16	3.99	-0.17
Divorced or separated	4.10	4.11	0.01
<u>Education</u>			
11th grade or less	4.34	4.24	-0.10
High school diploma	4.19	4.17	-0.02
Some college	4.18	4.09	-0.09
Bachelor's degree	4.09	4.02	-0.07
Graduate degree	4.24	4.33	0.09
<u>Race</u>			
Nonwhite	4.29	4.25	-0.04
White	4.13	4.10	-0.03
<u>Family Income</u>			
Below \$6000	3.96	3.83	-0.13
\$6000-11,999	4.24	4.32	0.08
\$12,000-19,999	4.36	4.34	-0.02
Over \$20,000	4.33	4.23	-0.10
Non-respondent	4.18	4.15	-0.03
<u>Siblings</u>			
Only child	4.30	4.27	-0.03
One or two	4.32	4.30	-0.02
Three or four	4.22	4.18	-0.04
Five or six	4.13	4.04	-0.09
Seven or more	4.16	4.05	-0.11
Non-respondent	4.13	4.20	0.07

continued

Table 3 (continued)

Characteristic	Pre LS Mean	Post LS Mean	Difference LS Mean
<u>Parents Retired</u>			
One parent retired	4.21	4.32	0.11
Both retired	4.33	4.41	0.08
Both working	4.22	4.07	-0.15
Both deceased	4.23	4.10	-0.13
One parent working, one parent deceased	4.12	4.04	-0.08
Non-respondent	4.17	4.10	-0.07
<u>Retirement Adjustment</u>			
Successful	4.31	4.23	-0.08
Moderately successful	4.37	4.32	-0.05
Fair	4.09	4.24	0.15
Poor	3.96	3.66	-0.30
Non-respondent	4.32	4.41	0.09
<u>Parents' Health</u>			
Excellent	4.23	4.11	-0.12
Good	4.29	4.25	-0.04
Fair	4.12	4.12	0.00
Poor	4.24	4.22	-0.01
Non-respondent	4.17	4.17	0.00
<u>Parents' Dependency</u>			
Yes or partially	4.38	4.10	-0.28
No	4.09	4.11	0.02
Non-respondent	4.16	4.31	0.15
<u>Region</u>			
Central	4.21	4.21	0.00
East	4.22	4.07	-0.15
West	4.21	4.23	0.02
<u>Location</u>			
1 Central	4.28	4.29	0.01
2 Central	4.17	4.19	0.02
3 Central	4.21	4.05	-0.11
4 Central	4.21	4.28	0.07
5 East	4.26	3.96	-0.30
6 East	4.07	4.10	0.03
7 East	4.34	4.15	-0.19
8 West	4.35	4.24	-0.11
9 West	3.96	4.10	0.14
10 West	4.31	4.36	0.05
<u>Group</u>			
Control	4.21	4.06	-0.15
Experimental	4.21	4.29	0.08

Parents' Health

Parental health was not related to the respondents' attitudes toward older persons. Persons who perceived their parents' health to be "fair" had the lowest LS means (Table 3).

Education

The relationship between education and attitudes toward the aged was not significant. Persons who had the least education (less than a high school diploma) had the most positive attitude scores (Table 3).

Race

Table 2 indicates that no significant relationship (.10 level) existed between race and attitudes towards older persons. The relationship was significant at the .1246 level. Nonwhites held the most positive attitudes toward the aged (Table 3).

Family Income

Family income was not significantly related to attitudes, though the relationship was significant at the .1305 level. Persons with family incomes below \$6000 had the lowest LS means, and persons above \$12,000 had the most positive LS means (Table 3).

Number of Brothers and Sisters

The number of brothers and/or sisters a respondent had was not significantly related to attitudes held toward the aged. However, those who were the only child or who had only one or two siblings had the most positive attitude scores (Table 3).

Parents' Financial Dependency

Whether or not the parents were financially dependent upon the respondents seemed to have little influence on the respondents' attitudes toward older persons. The relationship was not significant, as shown in Table 2. Those respondents whose parents were financially dependent or partially dependent upon them had the most positive LS mean (4.38), as compared to a LS mean of 4.09 for those who reported that their parents were not dependent on them (Table 3).

Purpose in Life

The one variable which did appear to be significantly related (.0099) to the adults' attitudes toward older persons was "purpose in life" (Table 2). The degree to which the adults expressed a sense of meaning and purpose in their own lives seemed to have decided influence on their attitudes toward older persons. The correlation matrix (Appendix D) indicated that as the PIL scores increased, the Kogan O.P. scores tended to increase.

Region

There appeared to be no regional differences in the attitudes toward older persons. As Table 3 indicates, the scores in the three regions were essentially the same.

Locations within Regions

In analyzing the pretest attitude scores between the workshop locations within each region, there appeared to be no difference in the attitudes toward the aged between the respondents in the respective workshops within the various regions (Table 2).

Summary of Relationships

Attitudes held by the adults of this study were influenced by many variables. The R^2 noted in Table 2 indicates that only 41.2 percent of the variance in attitudes among the respondents in this study can be accounted for by the variables selected for examination in the previous sections. The only variable which appeared to be significantly related to the adults' attitudes toward older persons was purpose in life. The variables marital status, race, and family income seem to warrant consideration in future studies dealing with attitudes toward the aged.

Unit on Aging and Changes in Attitudes

The third objective and primary focus of this study was to determine if middle-aged adults' attitudes toward older persons could be changed in a positive direction through a study unit deliberately designed to change attitudes. The workshop study unit consisted of six two-hour sessions. Most of the workshops were held once a week for six weeks. In two instances, the workshops were held twice a week for three weeks.

In order to determine the change in attitudes resulting from participation in the learning experiences, it was necessary to determine the attitudes of the experimental and control groups prior to beginning the workshops. As reported earlier, Table 2 indicates that there was no significant difference between the two groups on the Kogan O.P. pretest. In fact, both groups had identical I.S. means (4.21) on the pretest (Table 3). Based on this analysis, one can say that there was no difference in attitudes toward older persons between the two groups prior to the participation in the workshops.

Figure 4 indicates the LS mean attitude scores of the respondents at the conclusion of the treatment. Of course, those in the control group were not involved in any of the educational experiences. They completed the posttest at approximately the same time as those in the treatment groups.

There was a small, but positive, change (.08) in the LS mean attitude score of the experimental group, while the control group demonstrated a decrease (-.15) in their LS mean attitude score from the pretest to the posttest. The LS analysis (Table 4) indicates that there was a significant difference (.0068) in attitudes for the experimental group as compared to the control group. On the basis of this analysis, one can conclude that middle-aged adults' attitudes toward older persons can be changed significantly through participation in the type of educational experience utilized in this study. It would appear that participation in the learning experience, at best, reinforces the adults' attitudes toward older adults and, seemingly, results in a small positive increase.

Relationships between Respondent Characteristics and Changes in Attitudes Toward the Aged

The fourth objective of the study was to determine whether the change in attitudes of the middle-aged adults toward the aged was related to certain personal and situational characteristics. Table 5 reports the results of the LS analysis.

The analysis seemed to indicate that two characteristics were significantly related to the amount of change in attitudes occurring between the pretest and posttest--the group (whether experimental or

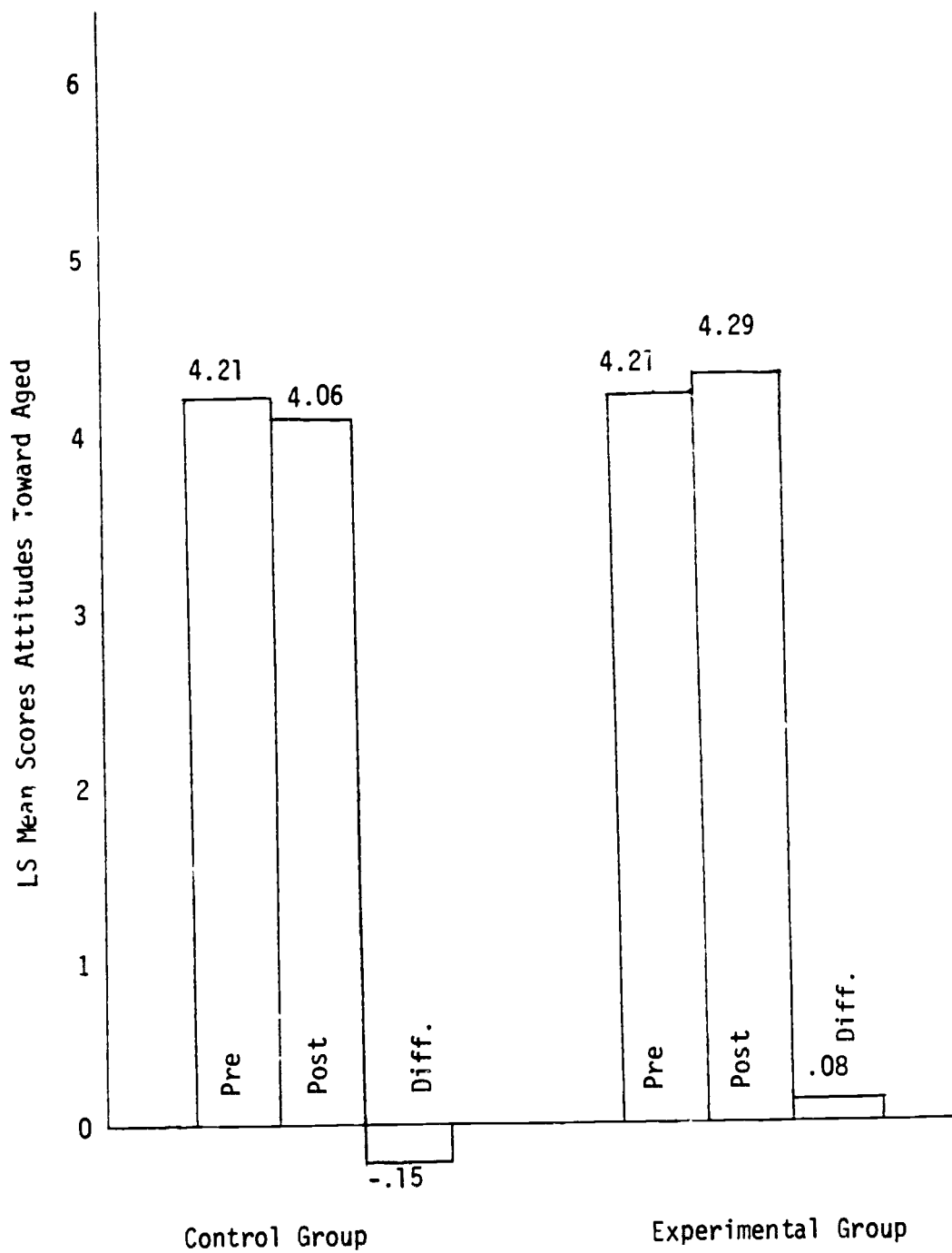


Figure 4. LS mean scores, attitudes toward older persons by group (N = 162)

Table 4. Relationships between attitudes toward the aged, posttest, and personal and situational characteristics of respondents (N = 162)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.142	0.85	0.3594
Age	4	1.733	2.58*	0.0408
Marital status	3	0.771	1.53	0.2085
Parents' retired	5	0.773	0.86	0.5105
Retirement adjustment	4	0.805	1.20	0.3146
Parents' health	4	0.400	0.60	0.6658
Educatic.	4	1.044	1.56	0.1908
Race	1	0.332	1.98	0.1618
Family income	4	1.920	2.86*	0.0265
Siblings	5	0.928	1.11	0.3606
Parents' dependency	2	0.229	0.68	0.5069
Purpose in life	1	0.430	2.56	0.1121
Region	2	0.310	0.92	0.3999
Location (region)	7	0.922	0.79	0.6022
Group	1	1.276	7.61*	0.0066

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.474$.

Table 5. Relationships between changes in attitudes toward older persons, difference in pretest and posttest, and personal and situational characteristics of respondents (N = 162)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.375	2.82*	0.0958
Age	4	0.086	0.16	0.9573
Marital status	3	0.646	1.60	0.1873
Parents retired	5	0.396	0.60	0.7060
Retirement adjustment	4	0.554	1.04	0.3885
Parents' health	4	0.163	0.31	0.8725
Education	4	0.345	0.65	0.6287
Race	1	0.004	0.03	0.8650
Family income	4	0.352	0.66	0.6191
Siblings	5	0.103	0.16	0.8758
Parents' dependency	2	0.503	1.89	0.1557
Purpose in life	1	0.183	1.38	0.2432
Region	2	0.369	1.39	0.255 ^c
Location (region)	7	1.112	1.20	0.3110
Group	1	1.276	9.60*	0.0025

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.323$.

control) to which the respondents belonged (.0025) and the respondents' sex (.0958). This analysis reinforces what has been reported earlier; namely, that participation in the unit on aging appeared to have a positive influence on the attitudes of the adults toward older persons.

It appears that one's sex is related to the change which occurs in the attitude scores from the pretest to posttest. An examination of Table 3 indicates that the difference in the LS mean scores of the females declined 0.12 while the males' scores increased by 0.05. This result must be viewed with some caution due to the small number of males who participated in the study, 25 or 15.4 percent of the total sample, compared to the number of females, 137 or 84.6 percent (Table 1). This variable warrants further study in future research.

As a point of interest, a further analysis of the data revealed that 50 respondents (30.9 percent) had lower LS attitude mean scores on the posttest than they did on the pretest; 22 were in the experimental group and 28 in the control group. This meant that 24.7 percent of the experimental group and 38.4 percent of the control group declined in scores. Again, it appears that being in the workshop experience had a more favorable effect on attitude scores than not participating in such a learning experience; at least a smaller percentage of persons in the experimental group showed a decline in attitude scores than those who were in the control group. Of the fifty who had a decrease in their scores, five were males and the other 45 were females. This meant that one-fifth, or 20.0 percent, of the males and 32.1 percent of the females showed a decrease in scores. Of the five males who showed a decline in scores, four were

in the control group. Twenty-one females in the experimental group and 24 in the control group decreased in attitude score from the pretest to posttest.

Analysis of Follow-Up Posttests

Two to four months after the posttests were given, the researchers again administered the Kogan O.P. Scale as a follow-up posttest to the experimental and control groups. There were 89 usable instruments from individuals who responded to all three administrations of the Kogan Scale. This was a loss of 73 persons (45.1 percent) from the 162 who completed the first two administrations of the scale. Some of the lossage occurred because three of the last workshops added to the project completed their studies so late that there was not enough time to solicit the follow-up posttest questionnaires before the cutoff date required to begin analysis of the data. This accounted for 37 of the non-respondents. The other 36 did not respond to the mailed questionnaire. Such a small response to the follow-up posttests requires that caution be utilized in the interpretation of this portion of the report.

In addition to running an analysis of the follow-up posttest and the difference between the posttest and follow-up posttest, the researchers ran similar analyses for the 89 persons as those just discussed in the preceding pages. It was felt that this was necessary in order to be better able to interpret the follow-up posttests results. An analysis of the pretest, posttest, and difference between pretest and posttest of the 89 persons will be discussed before attempting to report the follow-up posttests.

Frequency Distribution

Table 6 shows the frequency distribution of the respondents who completed all administrations of the Kogan attitude scale by characteristic, number and percent.

Attitudes of Middle-Aged Adults Toward the Aged

The pretest attitudes of the 89 persons were quite similar to those of the 162. The 89 had a pretest mean of 4.19 compared to 4.21 of the 162; therefore, both groups had positive attitudes toward older persons prior to beginning any treatment.

Relationships between Characteristics and Attitudes

Table 7 reports the LS analysis used to determine if any significant relationships existed between the attitudes of the 89 adults and the personal and situational characteristics.

In the pretest analysis of the group of 162, only one variable, purpose in life, was significantly related to the attitudes toward older persons. Purpose in life was also related (0.0728) to the pretest attitudes of the 89 adults; however, six other variables were, also, significantly related to the attitudes of this smaller group: sex, marital status, whether or not parents are retired, parents' adjustment to retirement, family income, and workshop location within region.

Females had significantly more positive attitudes (Table 8) toward older persons (4.74) than did males (4.34). Married persons had the lowest LS means (4.21), while divorced or separated persons had the highest LS means (4.80). In the analysis involving the

Table 6. Frequency distribution of respondents who completed three administrations of Kogan O.P. Scale by personal and situational characteristics (N = 89)

Characteristic	N	%	Characteristic	N	%
<u>Sex</u>			<u>Race</u>		
Female	79	88.8	Nonwhite	21	23.6
Male	10	11.2	White	68	76.4
Total	89	100.0	Total	89	100.0
<u>Age</u>			<u>Religion</u>		
Below 35	17	19.1	Baptist	37	41.6
35-44	18	20.2	Methodist	20	22.5
45-54	24	27.0	Presbyterian	16	18.0
55-64	20	22.5	Other Protestant	13	14.6
65 and over	10	11.2	Other	2	2.2
Total	89	100.0	Non-respondent	1	1.1
<u>Marital Status</u>			<u>Family Income</u>		
Never married	7	7.9	Below \$6000	10	11.2
Married	69	77.5	\$6000-11,999	16	18.0
Widowed	7	7.9	\$12,000-19,999	19	21.3
Divorced or separated	6	6.7	Over \$20,000	40	45.0
Total	89	100.0	Non-respondent	4	4.5
<u>Education</u>			<u>Siblings</u>		
11th grade or less	6	6.8	Only child	9	10.1
High school diploma	22	24.7	One or two	34	38.2
Some college	23	25.8	Three or four	21	23.6
Bachelor's degree	25	28.1	Five or six	13	14.6
Graduate degree	13	14.6	Seven or more	10	11.2
Total	89	100.0	Non-respondent	2	2.3
<u>Birth Order</u>			<u>Parent Living Arrangement</u>		
First	30	33.7	Own home	54	60.7
Second	22	24.7	Your home	2	2.2
Third	10	11.2	Other living arrangement	8	9.0
Fourth	9	10.1	Non-respondent	25	28.1
Fifth or later	16	18.0	Total	89	100.0
Non-respondent	2	2.3	<u>Older Adult in Home</u>		
Total	89	100.0	Yes	6	6.8
<u>Parents Living</u>			No	78	87.6
One parent living	29	32.6	Non-respondent	5	5.6
Both are	27	30.3	Total	89	100.0
Neither are	31	34.8			
Non-respondent	2	2.3			
Total	89	100.0			

Table 6 (continued)

Characteristic	N	%	Characteristic	N	%
<u>Parents Retired</u>			<u>Older Adult in Home as Child</u>		
One parent retired	32	36.0	Yes	28	31.5
Both retired	15	16.8	No	60	67.4
Both working	9	10.1	Non-respondent	1	1.1
Both deceased	28	21.5	Total	89	100.0
One parent working, one parent deceased	3	3.4	<u>Parents' Financial Dependency</u>		
Non-respondent	2	2.2	Yes	5	5.6
Total	89	100.0	No	65	73.0
<u>Parent' Adjustment to Retirement</u>			Non-respondent	19	21.4
Successful	32	36.0	Total	89	100.0
Moderately successful	14	15.7	<u>Parents' Health</u>		
Fair	6	6.7	Excellent	17	19.1
Poor	2	2.3	Good	25	28.1
Non-respondent	35	39.3	Fair	17	19.1
Total	89	100.0	Poor	6	6.7
<u>Location</u>			Non-respondent	24	27.0
1 Central	0	0.0	Total	89	100.0
2 Central	0	0.0	<u>Area</u>		
3 Central	9	10.1	Central	30	33.7
4 Central	21	23.6	East	20	22.5
5 East	0	0.0	West	39	43.8
6 East	15	16.9	Total	89	100.0
7 East	5	5.6	<u>Group</u>		
8 West	10	11.2	Experimental	49	55.1
9 West	21	23.6	Control	40	44.9
10 West	8	9.0	Total	89	100.0
Total	89	100.0	<u>Occupation</u>		
<u>Professional and technical</u>			Professional and technical	19	21.3
<u>Managers and administrators</u>			Managers and administrators	9	10.1
<u>Farmers and laborers</u>			Farmers and laborers	3	3.4
<u>Sales</u>			Sales	1	1.1
<u>Clerical</u>			Clerical	12	13.5
<u>Service</u>			Service	7	7.9
<u>Housewife</u>			Housewife	18	20.2
<u>Non-respondent</u>			Non-respondent	20	22.5
<u>Total</u>			Total	89	100.0

Table 7. Relationships between attitudes toward the aged, pretest and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale (N = 89)

Character ^a	df	SS	F-Value	Prob > F
Sex	1	0.740	4.99*	0.0307
Age	4	0.332	0.56	0.6927
Marital status	3	1.042	2.34*	0.0863
Parents retired	5	2.056	2.78*	0.0293
Retirement adjustment	4	1.388	2.34*	0.0700
Parents' health	4	0.817	1.38	0.2576
Education	4	0.255	0.43	0.7865
Race	1	0.094	0.64	0.4290
Family income	4	1.862	3.14*	0.0237
Siblings	5	1.164	1.57	0.1886
Parents' dependency	2	0.433	1.46	0.2432
Purpose in life	1	0.501	3.38*	0.0728
Region	2	0.051	0.17	0.8420
Location (region)	4	2.561	4.32*	0.0050
Group	1	0.010	0.07	0.7916

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.675$.

Table 8. Attitudes toward the aged by personal and situational characteristics of those respondents completing three administrations of the Kogan O.P. Scale (N = 89)

Characteristic	Pre LS Mean	Post LS Mean	Diff LS Mean	F Post LS Mean	F Diff LS Mean
<u>Sex</u>					
Female	4.74	4.35	-0.39	4.74	0.39
Male	4.34	4.47	0.13	4.55	0.08
<u>Age</u>					
Below 35	4.60	4.40	-0.20	4.60	0.20
35-44	4.45	4.28	-0.17	4.37	0.09
45-54	4.53	4.47	-0.05	4.77	0.30
55-64	4.67	4.64	-0.03	4.84	0.20
65 and over	4.45	4.25	-0.20	4.64	0.39
<u>Marital Status</u>					
Never married	4.61	4.63	0.02	4.81	0.18
Married	4.21	4.16	-0.05	4.41	0.25
Widowed	4.54	4.27	-0.27	4.59	0.32
Divorced or separated	4.80	4.58	-0.22	4.78	0.20
<u>Education</u>					
11th grade or less	4.86	4.29	-0.60	4.80	0.51
High school diploma	4.46	4.45	-0.01	4.54	0.09
Some college	4.52	4.36	-0.16	4.54	0.18
Bachelor's degree	4.41	4.29	-0.12	4.48	0.19
Graduate degree	4.42	4.66	0.24	4.87	0.21
<u>Race</u>					
Nonwhite	4.60	4.50	-0.10	4.71	0.21
White	4.48	4.32	-0.16	4.59	0.27
<u>Family Income</u>					
Below \$6000	4.29	3.97	-0.32	4.41	0.44
\$6000-11,999	4.20	4.46	0.26	4.54	0.09
\$12,000-19,999	4.74	4.65	-0.09	4.83	0.18
Over \$20,000	4.77	4.66	-0.11	4.95	0.29
Non-respondent	4.70	4.32	-0.38	4.50	0.18
<u>Siblings</u>					
Only child	4.58	4.48	-0.10	4.47	-0.01
One or two	4.73	4.70	-0.03	5.0	0.36
Three or four	4.43	4.29	-0.13	4.60	0.31
Five or six	4.29	4.33	0.04	4.50	0.17
Seven or more	4.49	4.41	-0.08	4.93	0.52
Non-respondent	4.72	4.24	-0.48	4.31	0.07

continued

Table 8 (continued)

Characteristic	Pre LS Mean	Post LS Mean	Diff LS Mean	F Post LS Mean	F Diff LS Mean
<u>Parents Retired</u>					
One parent retired	4.10	4.39	0.29	4.39	0.00
Both retired	4.54	4.82	0.28	4.80	-0.02
Both working	4.81	4.19	-0.61	4.59	0.40
Both deceased	4.98	4.52	-0.46	4.94	0.42
One parent working, one parent deceased	4.26	3.77	-0.49	4.52	0.75
Non-respondent	4.56	4.77	0.21	4.64	-0.13
<u>Retirement Adjustment</u>					
Successful	4.91	4.45	-0.46	4.65	0.20
Moderately successful	4.94	4.68	-0.26	5.04	0.36
Fair	4.42	4.25	-0.17	4.68	0.43
Poor	4.24	4.18	-0.06	4.34	0.16
Non-respondent	4.19	4.49	0.30	4.53	0.04
<u>Parents' Health</u>					
Excellent	4.55	4.29	-0.26	4.69	0.40
Good	4.73	4.71	-0.02	5.10	0.40
Fair	4.70	4.51	-0.19	4.91	0.40
Poor	4.82	4.45	-0.37	4.68	0.23
Non-respondent	3.91	4.10	0.19	3.85	-0.25
<u>Parents' Dependency</u>					
Yes or partially	4.56	4.46	-0.10	4.72	0.26
No	4.29	4.32	0.03	4.30	-0.02
Non-respondent	4.76	4.45	-0.31	4.92	0.47
<u>Region</u>					
Central	4.59	4.44	-0.15	4.68	0.24
East	4.55	4.46	-0.09	4.77	0.31
West	4.50	4.36	-0.14	4.54	0.18
<u>Location</u>					
1 Central	-	-	-	-	-
2 Central	-	-	-	-	-
3 Central	4.72	4.47	-0.25	4.83	0.36
4 Central	4.46	4.40	-0.06	4.53	0.12
5 East	-	-	-	-	-
6 East	4.27	4.32	0.05	4.44	0.12
7 East	4.84	4.60	-0.24	5.11	0.51
8 West	4.66	4.32	-0.34	4.51	0.19
9 West	4.03	4.20	0.17	4.33	0.13
10 West	4.80	4.55	-0.25	4.77	0.22
<u>Group</u>					
Control	4.56	4.32	-0.24	4.62	0.30
Experimental	4.52	4.50	-0.02	4.67	0.17

162 individuals, the married and divorced or separated groups had the lowest LS mean (4.10).

The respondents who had "one parent retired" had the lowest attitude scores (4.10) followed by those who had "one parent working, one parent deceased" (4.26). Those individuals who had "both parents deceased" had the highest mean (4.98).

The data of Table 8 seem to indicate that respondents with the more positive attitude scores were those whose parents were perceived to be "moderately successful" to "successful" in their adjustment to retirement.

Persons with a family income below \$12,000 had lower attitude scores than persons with incomes above \$12,000.

There did appear to be differences between the workshop groups within the various regions, as shown in Table 8. In the Western region, Location 9 had a much lower LS mean (4.03) than the other two workshop sites (4.66 and 4.80). Location 6 in the East region had a mean of 4.27 compared to 4.84 for Location 7; and Location 4 in the Central region was lower (4.46) than Location 3 (4.72).

As in the analysis of the 162 persons' data, there did not appear to be any difference between the experimental and control groups (N = 89) on attitudes toward older persons prior to the beginning of the study (Table 7).

Unit on Aging and Changes in Attitudes

Figure 5 indicates the least squares mean attitude scores of the 89 respondents after the posttest. Whereas the 162 previously

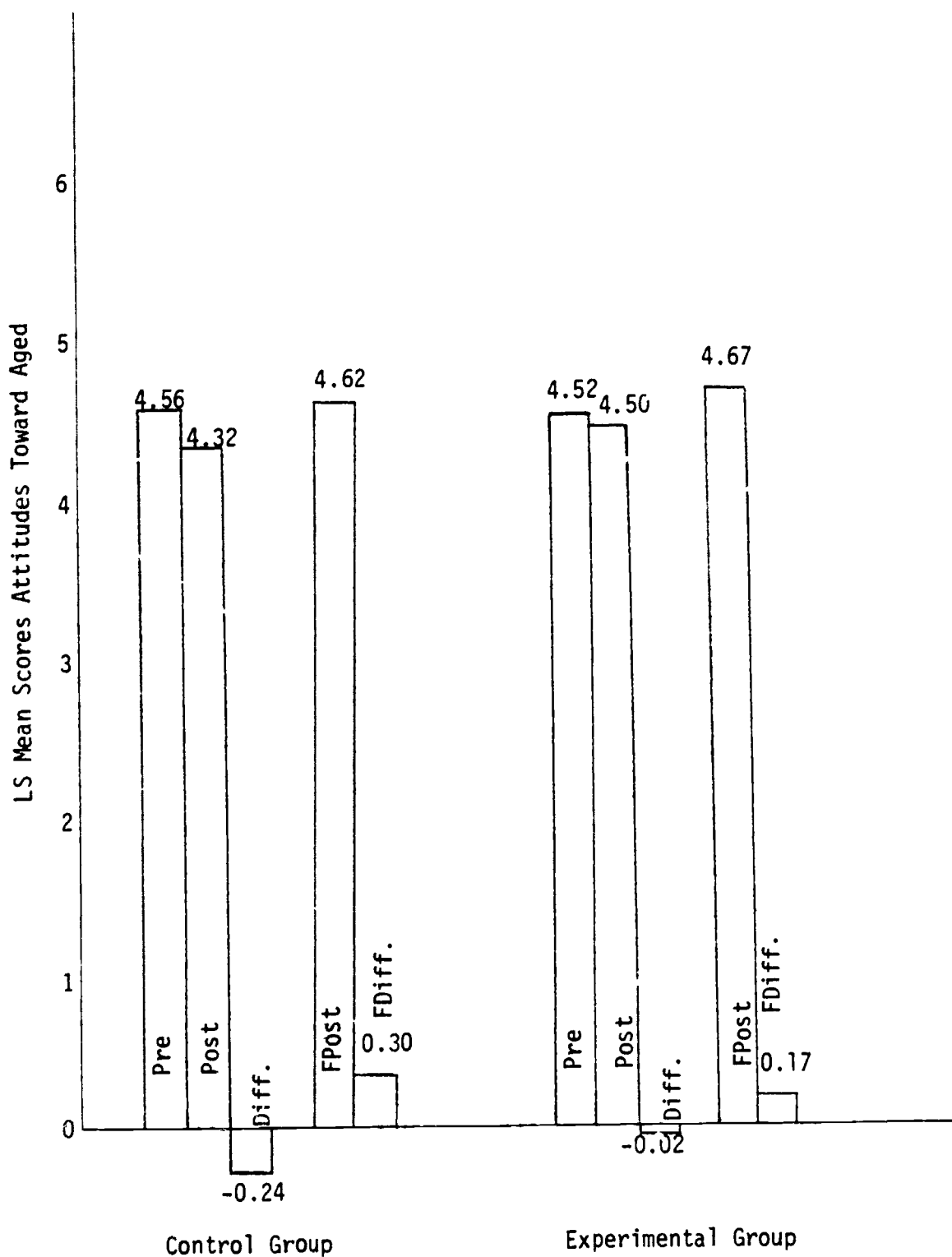


Figure 5. LS mean scores, attitudes toward aged by group for those taking Kagan O.P. Scale three times (N = 89)

reported had shown a slight positive change from the pretest to the posttest, the 89 respondents showed a slight decline (-0.02) in their LS means. The LS analysis (Table 9) shows there was not a significant difference in attitudes between the experimental and control groups at the time of the posttest, though the significance level (0.1060) approached the level (.10) set for this study. This finding was contrary to what was found in the posttest LS analysis for the 162 persons (Table 4). It certainly appears that the mean responses of the persons who replied to all three administrations of the Kogan O.P. Scale were different from the mean responses of the total group of 162 persons. For the 89 persons, it did not appear to make a significant difference in their attitudes whether they were in the workshop group or not.

Relationships between Characteristics and Changes in Attitudes

Table 10 reports the results of the LS analysis to determine if the change in attitudes of the 89 adults was related to the personal and situational characteristics used in this study.

In contrast to what was reported above in the posttest analysis, this analysis seemed to indicate that the group to which one belonged was significantly related (0.0135) to the amount of change occurring between the pretest and posttest. Table 8 indicates that the experimental group had a difference in LS means of -0.02 as compared to a difference in LS means of -0.24 for the control; thus, it appears that participation in the workshop unit contributed to a smaller decline in attitude score. In essence, the workshop group remained essentially the same. The LS mean change of -0.02 is really the

Table 9. Relationships between attitudes toward the aged, posttest, and personal and situational characteristics of adults responding to three administrations of Kogan O.D. Scale (N = 89)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.060	0.48	0.4927
Age	4	0.808	1.61	0.1895
Marital status	3	0.766	2.03	0.1233
Parents retired	5	2.346	3.74*	0.0068
Retirement adjustment	4	0.689	1.37	0.2595
Parents' health	4	1.142	2.27*	0.0768
Education	4	0.601	1.20	0.3264
Race	1	0.210	1.67	0.2031
Family income	4	2.030	4.04*	0.0072
Siblings	5	1.445	2.30*	0.0614
Parents' dependency	2	0.056	0.22	0.8008
Purpose in life	1	1.140	9.08*	0.0043
Region	2	0.073	0.29	0.7487
Location (region)	4	0.506	1.01	0.4146
Group	1	0.342	2.73	0.1060

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.743$.

Table 10. Relationships between changes in attitudes toward the aged, difference in pretest and posttest, and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale (N = 89)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	1.222	17.16*	0.0002
Age	4	0.173	0.61	0.6592
Marital status	3	0.173	0.84	0.4819
Parents retired	5	1.366	3.84*	0.0058
Retirement adjustment	4	0.948	3.33*	0.0184
Parents' health	4	0.591	2.07	0.1009
Education	4	0.147	2.98*	0.0296
Race	1	0.023	0.32	0.5752
Family income	4	1.054	3.70*	0.0113
Siblings	5	0.234	0.66	0.6584
Parents' dependency	2	0.192	1.35	0.2706
Purpose in life	1	0.129	1.82	0.1847
Region	2	0.018	0.12	0.8834
Location (region)	4	1.069	3.75*	0.0105
Group	1	0.473	6.54*	0.0135

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.710$.

average change for each item of the 34 item O.P. Scale. Over the whole scale, the workshop respondents' total score only changed -0.68 of a point, while the control group changed -8.16 points. While being in the experimental group did not appear to increase the participants' attitudes toward older persons, it did appear to reinforce the 89 individuals' attitudes and, thus, prevent a large decline in attitude scores.

In the early analysis of the 162 adults, the group to which one belonged and sex were the only variables significantly related to the amount of change in attitudes. In the analysis of the 89 adults (Table 10), these two variables were again significant, as well as five others: whether or not parents are retired (.0058), parents' adjustment to retirement (.0184), education (.0296), family income (.0113), and workshop location within region (.0105).

Females had a negative difference of -0.39 (Table 8), while males showed a positive difference (0.13) from the pretest to the posttest.

Respondents who had one or both parents retired and non-respondents had a positive change in LS means, while all the other categories of respondents had negative changes.

The non-respondents were the only category of "parents' adjustment to retirement" which indicated a positive difference in LS means. Of the other categories, the "poor" group had the smallest decline. Table 8 indicates that persons with a graduate degree were the only individuals to indicate a positive increase in their LS means from the pretest to the posttest. All the others decreased, with those with a high school diploma showing the smallest decrease (-0.01) and

those with less than a high school diploma the greatest decrease (-0.60).

Persons with family incomes between \$6000-11,999 were the only grouping to show a positive LS difference mean.

A look at Table 8 will indicate a great variation in the LS difference means between the workshop groups within each region.

Persistence of Changed Attitudes

The fifth objective of the study was to determine whether the changed attitudes which resulted from participation in the unit on aging would persist after a two- to four-month time lapse. Table 8 indicates that the follow-up posttest LS mean for the experimental group was 4.57 compared to a mean of 4.50 at the time of the posttest. Remembering that the experimental group showed a slight decline in attitude scores from the pretest to the posttest, it appears that participation in the workshop experience did have, in the final analysis, a positive influence on the participants. The difference from the posttest to the follow-up posttest was 0.17.

Just stopping with this information would cause great jubilation in the researchers. However, a further look at Table 8 indicates that the control group had an increase of 0.30 in their LS mean scores from the time of the posttest to the follow-up posttest! The control group had dropped -0.24 from the pretest to the posttest, but they gained that difference and more from the posttest to the follow-up posttest. While the experimental group's LS attitude mean was higher than the control group's on the follow-up posttest as compared to the reverse on the pretest (Table 8), Table 11 indicates that the two

Table 11. Relationships between attitudes toward the aged, follow-up posttest, and personal and situational characteristics of adults responding to three administrations of Kogan O.P. Scale (N = 89)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.170	0.83	0.3674
Age	4	0.821	1.00	0.4180
Marital status	3	0.612	0.99	0.4048
Parents retired	5	1.437	1.70	0.2433
Retirement adjustment	4	0.950	1.16	0.3429
Parents' health	4	2.260	2.75*	0.0400
Education	4	0.786	0.96	0.4407
Race	1	0.097	0.47	0.4961
Family income	4	1.623	1.98	0.1151
Siblings	5	3.195	3.11*	0.0174
Parents' dependency	2	0.831	2.02	0.1444
Purpose in life	1	1.831	8.92*	0.0046
Region	2	0.325	0.79	0.4596
Location (region)	4	1.696	2.07	0.1020
Group	1	0.018	0.09	0.7655

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.638$.

groups were not significantly different in their attitude scores at the time of the follow-up posttest. At the conclusion of the experiment it appears that the two groups (N = 89) were not different in their attitudes toward older persons.

Difference between Posttest and Follow-Up Posttest

As just noted in the previous section, the control group (Table 8) had a larger increase (0.30) from the posttest to the follow-up posttest than did the experimental group (0.17). In attempting to determine if this difference was significant, a least squares analysis was used. Table 12 indicates that there was not a significant difference, at the .10 level, between the posttest and follow-up posttest differences of the experimental and control groups; though the difference did approach significance (0.1260).

It appears that sex, number of brothers and sisters (siblings), and parents' financial dependency were the only variables significantly related to the different scores. Table 8 shows some interesting data regarding these differences between the posttest and follow-up posttests. Females made a greater change (0.39) in their LS mean difference scores than did the males (0.08). Respondents who were the only child were the only category showing a negative difference (-0.01) from the posttest to the follow-up posttest. Individuals having seven or more siblings had the greatest change (0.52). Persons whose parents were totally or partially financially dependent upon the respondents demonstrated a more positive change (0.26) while those persons whose parents were not financially dependent upon them showed a negative change (-0.02). The non-respondents actually had the greatest increase (0.47).

Table 12. Relationships between changes in attitudes toward the aged, difference in posttest and follow-up posttest, and personal and situational characteristics of those who responded to three administrations of Kogan O.P. Scale (N = 89)

Characteristic ^a	df	SS	F-Value	Prob > F
Sex	1	0.4328	5.22*	0.0273
Age	4	0.2892	0.87	0.4884
Marital status	3	0.0267	0.11	0.9553
Parents retired	5	0.6953	1.68	0.1605
Retirement adjustment	4	0.2470	0.74	0.5668
Parents' health	4	0.4810	1.45	0.2339
Education	4	0.2398	0.72	0.5810
Race	1	0.0216	0.26	0.6122
Family income	4	0.3579	1.08	0.3786
Siblings	5	0.9802	2.37*	0.0555
Parents' dependency	2	0.4666	2.81*	0.0710
Purpose in life	1	0.814	0.98	0.3272
Region	2	0.0955	0.58	0.5664
Location (region)	4	0.5064	1.53	0.2112
Group	1	0.2018	2.43	0.1260

^aFor these sources the partial SS from the least squares analysis are presented.

*Significant at .10 level. $R^2 = 0.583$.

SUMMARY AND CONCLUSIONS

Purpose

This study was an extension of two earlier projects funded by the Andrus Foundation designed to bring about a positive change in attitudes toward older persons through participation in educational programs. The first study, whose population consisted of 4-H Club youth between the ages of 13-18, concluded that attitudes toward the aged could be changed significantly through learning experiences. The second project utilized ninth-grade junior high students and produced similar findings. It was felt that the work of the earlier projects needed to be extended into the adult population.

The central purpose of this study was to determine whether middle-aged adults' attitudes toward older persons could be changed in a positive direction through planned educational experiences designed specifically to change attitudes. A second purpose was to determine the extent to which certain personal and situational characteristics of middle-aged adults were associated with attitudes toward older persons and attitude change. A third major purpose was to determine if the attitudes changed through the educational experiences would persist after a time period of two to four months.

Specifically, the research sought answers to the following questions:

1. What are the current attitudes toward the aged among middle-aged adults in North Carolina?
2. What personal and demographic variables are related to the current attitudes toward older adults among the participants in the study?

3. Can these attitudes toward the aged be changed through participation in a 12-hour workshop series on aging?
4. If a change in attitudes does occur, what personal and demographic variables are related to the change?
5. Do changed attitudes persist after a lapse of two to four months?

Background and Need for the Study

In general, older adults do not possess a positive image in American society. "Being young" is much more favorable than "being old." The devalued position accorded older Americans can be evidenced in societal practices and scientific literature. A review of the literature reveals that the attitudes which others have toward the elderly seem to have an impact on the treatment they receive and on the adjustment these older adults make to life.

In an effort to improve the quality of life for older persons, it is imperative that attention be given to altering the negative attitudes of society. A most important segment of society is the middle-aged adult population. It is these adults who, in general, are most often found in positions of influence and decision making. Middle-aged adults have a great influence on the treatment of older adults, for middle-aged adults, as a rule, control the policies and programs on which many older adults find themselves dependent. Perhaps even more important is the fact that the middle-aged adults are the norm-bearers of society, and they are the ones who have a great impact on the formation of the attitudes of the young. It is generally accepted that middle age is that time of life when an individual comes face to

face with his or her own aging. The literature suggests that, as a group, middle-aged adults hold negative attitudes toward older persons.

All of the above factors point out the crucialness of helping middle-aged adults to gain positive attitudes toward older persons and toward aging itself. This study is one effort in that direction.

Research Procedures

The population for this study consisted of middle-aged volunteer learners in North Carolina. The State of North Carolina was divided into three geographical areas (East, Central and West). An effort was made to find educational organizations and institutions in each region who would be willing to offer the workshop in their area. In all, ten locations were found for the workshops--three in the East, four in the Central region, and three in the West. These ten institutions and organizations consisted of two technical colleges' division of continuing education, two four-year State universities' division of continuing education, and six Agricultural (Cooperative) Extension Service offices. Participation was voluntary.

The study employed the pretest → treatment → posttest → follow-up posttest research design. The experimental group participated in a series of six two-hour workshops on aging. The control group received no instruction but completed the pretest, posttest, and follow-up posttest. The Kogan O.P. Attitude Scale was administered to all participants before and after the experiment. A general information questionnaire and the Purpose in Life Scale (PIL) were administered to all participants before the experiment. Two to four months after the conclusion of the workshops, the Kogan O.P. Scale was mailed to

both experimental and control groups as a follow-up posttest. There were 162 adults (89 in experimental group and 73 in control group) who supplied data for the pretest and posttest. Of this number, 89 participated in the follow-up posttest.

Processing of data and statistical procedures were carried out at the Triangle Universities' Computation Center using the Statistical Analysis System (SAS). Least squares analysis was the statistical procedure used to analyze the data. A .10 level of significance was set for this study.

Results and Conclusions

Based on the study of the literature, the researchers anticipated that the adults in this study would hold generally negative attitudes toward older persons. This expectation was not confirmed. The mean pretest attitude score for the total sample was 4.21 out of a possible 6.0, indicating a slightly positive attitude toward the aged.

While the attitudes were not overwhelmingly positive, they were positive. Such a finding is contrary to what little research has been conducted on middle-aged adults' attitudes toward older persons (Tuckman and Lorge, 1953a,b, 1958a; Kalish and Johnson, 1970). It is difficult to explain these findings. It is not known for certain if the participants of this study are typical of North Carolina adults in terms of their attitudes, nor is it known if such positive attitudes are now typical of adults' attitudes in other states and regions. It may be that persons who volunteer to learn about aging and/or who participate in the institutions and organizations utilized in this study, in general, possess more positive attitudes toward older persons

than do those persons who do not volunteer to study about aging or who do not participate in the types of institutions of this study. The researchers have no way of knowing. However, it may be that these attitudes are typical of middle-aged adults today. It might be possible that today's adults have more favorable attitudes toward older persons and toward aging itself. Maybe adults' attitudes toward older persons are beginning to take a positive turn, even if ever so slight, and these findings are a reflection of that trend. Further research must seek these answers.

There was only one variable which appeared to be significantly related to the pretest attitudes toward older persons. Those adults with higher Purpose in Life (PIL) scores held significantly more positive attitudes toward the aged than those with lower PIL scores. These findings are consistent with those found in earlier studies with adolescents (Trent, Glass, and Crockett, 1977; Glass, Trent, and Rice, 1978).

The relationship between attitude toward the aged and marital status approached significance (0.1111), indicating that this relationship needs to be examined in greater depth in future studies. The "never married" individuals had the highest attitude scores as compared to the married, widowed, and divorced or separated. The variable of race was significant at the .1246 level on the pretest and family income was significant at the .1305 level. Both of these variables may need to be studied more closely in later studies. Non-whites held the most positive attitudes toward older persons; respondents with family incomes below \$6000 had the lowest LS means, and persons above \$12,000 had the most positive LS pretest means.

The variables of sex, age, education, religious denomination, numbers of brothers and sisters, birth order, whether or not parents are living, whether or not parents are retired, parents' adjustment to retirement, parents' living arrangement, whether or not older adults lived in home as a child, whether or not older adults are currently living in home, parents' financial dependency, parents' health, geographic region, and workshop location within region were not significantly related to attitudes toward older persons.

On the basis of these findings, the analysis as presented would lead one to conclude that middle-aged adults who possess a positive sense of meaning and purpose in their own lives will hold more positive attitudes toward life in general and toward older persons specifically.

The major emphasis of the research was to determine whether middle-aged adults' attitudes toward older persons could be changed through educational experiences specifically designed to change attitudes. The data of this study indicated that there was a difference between the workshop group and the control group at the conclusion of the learning experiences. The control group, which did not participate in the learning experience, showed a decrease in attitude scores while the workshop group showed a small, but positive, increase in scores. On the basis of this analysis, one can conclude that middle-aged adults' attitudes toward the aged can be changed in a positive direction through participation in the six two-hour sessions offered in the workshop experiences used in this study. It would appear that participation in the learning experiences, at least, contributed to

a reinforcement of the adults' attitudes toward older persons, and, at best, resulted in a small positive increase in attitudes.

Another area of interest in this study was to determine if the changed attitudes would persist over a two- to four-month period. The researchers encountered some problems in getting these data. Because some of the sites were not able to conduct their workshops, it was necessary to recruit some new organizations to participate in the study. Due to the late start of three of these locations, it was impossible to secure the follow-up posttests from these locations before the data collecting phase of this project had to be brought to a close. This situation, along with having to secure the follow-up posttests by mail, resulted in only 89 adults supplying data which were usable for this portion of the analysis. This was only 54.9 percent of the original 162 persons used in the other analyses. This would necessitate, the researchers feel, the use of extreme caution in interpreting this phase of the analysis.

In the analysis of the 89 adults, it was found that the LS mean of the control group dropped -0.24 from the pretest to the posttest, while the experimental group showed only a slight decline (-0.02). Both the experimental and control groups increased their mean scores from the time of the posttest to the follow-up posttest. The experimental group showed an increase of 0.17 . Based on this finding, it would appear that participation in the workshop did have a positive influence on the participants; however, the control group had an increase of 0.30 in their LS mean score from the posttest to the follow-up posttest. The two groups were not significantly different in their attitude scores at the time of the follow-up posttest. At

the conclusion of the experiment, it appears that the two groups were not different in their attitudes toward older persons.

The researchers have no indication as how to explain this phenomenon. It may be that the findings of the group of 89 persons are not representative of the total group of 162 persons. The fact that it was impossible to secure the follow-up posttests of three of the groups, plus the non-respondents from the other groups, mean that the follow-up posttest analysis does not provide an accurate picture of the change which occurs from the posttest to the follow-up posttest. On the other hand, the findings may be accurate for the entire sample. It may be that taking the Kogan O.P. Scale three times caused the control group (and maybe the experimental group) to increase its attitude scores. Another explanation may lie in the possibility that many of the control group members had contact in informal settings with the experimental group members. This is entirely possible in some of the workshop locations, and, as a result, the control group may have inquired of the experimental group what was occurring in the workshop sessions. As the two groups interacted, it may be that the adults in the experimental group had some influence on the control group, thus resulting in a large positive change over the two- to four-month period. All of these possibilities are pure speculation. In conclusion, the researchers feel that, due to the small number of respondents in the follow-up posttests, one should reserve judgment on the results regarding the amount of change which developed from the time of the posttest to the follow-up posttest.

The last part of the data analysis focused on the relationships between changes in attitudes toward older persons and the personal and situational characteristics of the respondents.

The least squares analysis of the data for the 162 respondents indicated that two characteristics were significantly related to the amount of change occurring between the pretest and the posttest--the group to which the respondents belonged (whether experimental or control) and the respondents' sex. This analysis reinforces the earlier conclusion that the workshop unit used in this study does have a positive influence on attitudes toward the aged. Overall, the females' LS mean scores declined (-0.12) while the males' scores increased (0.05). Since only a small number of males (25) participated in the study compared to the number of females (137), it may be that the males of this study are not representative of most males.

When the change in attitudes between pretest and posttest were analyzed for the 89 adults completing all three administrations of the attitude scale, the group to which one belonged and one's sex were still significant variables. Five other variables were also significant: whether or not parents are retired, parents' adjustment to retirement, education, family income, and workshop location within region. While these latter variables were not related to the attitudes of the 162 respondents, they were significantly related to the attitudes of the 89 respondents; thus, it would appear that these variables need to be studied closely in future research regarding attitudes toward older persons.

In attempting to determine if there was a difference in the change of attitudes between the experimental and control groups from the

posttest to the follow-up posttest, the analysis revealed the control group had a greater change (0.30) over the two- to four-month period than did the experimental group (0.17). The least squares analysis revealed no significant difference between change in attitudes between the two groups. Sex, number of brothers and sisters, and parents' financial dependency were the only variables significantly related to these difference scores.

IMPLICATIONS

The findings of this study provide a number of important implications for individuals, agencies, and organizations concerned with education about aging and the aged. This study has demonstrated the effectiveness of a particular study on aging in changing the attitudes toward older persons of a group of middle-aged adults. Though the amount of change was small, there was a slight positive increase in attitudes toward older persons. It certainly appears that participation in the learning experiences of this study, at least, contributes to a reinforcement of the existing attitudes of the adults and, seemingly, results in a small increase in attitudes. While the gains in attitudes were not as strong as the researchers would have liked, it would seem that this unit can be used with some assurance with groups of other adult learners.

Of interest to the educational community is the fact that the attitudes of adults can be changed significantly over such a short period of time through an educational experience designed specifically to change attitudes. It must be remembered that the adults of this study spent a number of years developing their attitudes toward older persons; and, as a group, these adults had relatively positive attitudes toward older persons before the study began. Given these two factors, it is even more noteworthy that a significant change in attitudes could occur in such a short study. It is exciting to ponder what might occur if a longer period of time could be given to such study. If attitudes can be changed, even so slightly, with such a short exposure to the area, think what might occur with more exposure spread over a longer period of time.

The enthusiasm of the last few paragraphs must be tempered by the knowledge that the analysis of the data of the 89 persons who completed all three administrations of the attitude scale did not reveal as positive results as did the analysis of the total sample of 162 persons. Such knowledge should cause these researchers and other adult educators to realize that the workshop learning experiences did not help a number of persons to alter their attitudes in a positive direction. It is difficult to explain why, but it may be that the content of these workshop sessions, while appropriate for some persons, may not be appropriate for others. These workshop sessions were adapted from materials originally designed for adolescents. It may be that some additional content areas are needed for adult learning situations. While the existing materials may be appropriate for some adults, the inclusion of, or the substitution of, additional topics may help the learning experiences become even more relevant for adult learners.

One fact that became clear to the researchers during this project was the difficulty in getting adult learners to participate in such workshops on aging through the normal publicity channels. Those locations which just advertised through newspapers, radio, and flyers did not seem to get as good a response as did those locations which relied on person-to-person contacts. People seemed reluctant to come to a study about aging unless they were contacted personally and were given some information in addition to that included in the publicity. This would seem to imply that educational organizations and institutions may need to develop some means to recruit adults on a one-to-one basis whenever they wish to attract the "average" adult to such learning experiences.

Older adults and those who work with them should be heartened to realize that the adults of this study, as a group, did not view older persons negatively. While one cannot go so far as to say these adults are typical of all adults, these findings do present some evidence that middle-aged adults do not have as negative attitudes toward older persons as past research would tend to indicate.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that the lesson materials on aging used in this study be produced in a format and in quantities which could be readily available for widespread use in other adult groups. This unit could be used until even more appropriate materials are developed. It is recommended that the availability of this lesson series be widely circulated to key administrators of community colleges/technical institutes, university extension divisions, Cooperative (Agricultural) Extension Services, and institutions concerned with aging in North Carolina and throughout the nation.

It is recommended that further research on attitudes toward older persons be conducted and educational programs be developed and evaluated as to their effectiveness in changing attitudes among the various age groupings in society. The following research projects are recommended:

1. Conduct this study with other groups of middle-aged adults, insuring a larger representation of males and nonwhites and also insuring that time restraints do not prevent the gathering of the follow-up posttest data.
2. Conduct this same study with young adults and older adults.
3. Conduct this same study with various heterogeneous groupings-- young, middle, and older adults; children and older adults; adolescents and older adults, etc.
4. Conduct a study to determine what, if any, content areas would be more appropriate for a study of aging by middle-aged adults.

5. Conduct studies to determine what variables other than those identified in this study may be accounting for much of the variation in attitudes toward the aged.
6. Conduct a study to determine if learning experiences which seek to create a more positive "purpose in life" result in more positive attitudes toward older persons.
7. Conduct a study to determine the influence of the attitudes toward older persons held by workshop leaders and/or facilitators of learning experiences has on the amount of attitude change in participants.
8. Conduct a study to determine why adults are reluctant to participate in learning experiences on aging, the variables related to this reluctance, and what strategies might reduce this reluctance.

References

- Bartelt, P. W. 1972. Birth order of siblings and differences in orientation toward parents. *Dissertation Abstracts International* 33:4556A.
- Bennett, R., and J. Eckman. 1973. Attitudes toward aging: A critical examination of recent literature and implications for future research, pp. 575-597. In Carl Eisdorfer and M. P. Lawton (eds.), *The Psychology of Adult Development and Aging*. American Psychological Association, Washington, D. C.
- Bevan, W. 1972. On growing old in America. *Science* 177:4052.
- Boyd, R. D. 1961. Basic motivation for adults in non-credit programs. *Adult Education* 11:92-98.
- Britton, J. O., and J. H. Britton. 1970. Young people's perceptions of age and aging. *The Gerontologist* 10(3), Pt. II:39.
- Brown, M. I. 1967. Nurses' Attitudes Toward the Aged and Their Care. Annual Report to Gerontology Branch, USPHS (Contract No. PH 108-64-122).
- Campbell, M. E. 1971. Study of the attitudes of nursing personnel toward the geriatric patient. *Nursing Research* 20:147-151.
- Cantela, J. R., and P. A. Wisocki. 1969. The use of imagery in the modification of attitudes toward the elderly: A preliminary report. *Journal of Psychology* 73:193-199.
- Cicchetti, D. V., C. R. Fletcher, E. Lerner, and J. V. Coleman. 1973. Effects of a social medicine course on the attitudes of medical students toward the elderly: A controlled study. *Journal of Gerontology* 28(3):370-373.
- Coe, R. M. 1967. Professional perspectives on the aged. *The Gerontologist* 7:114-119.
- Coppersmith, S. 1967. *The Antecedents of Self-Esteem*. W. H. Freeman, San Francisco.
- Crumbaugh, J. C. 1968. Cross-validation of purpose-in-life test based on Frankl's concepts. *Journal of Individual Psychology* 24:74-81.
- Crumbaugh, J. C., and L. T. Maholick. 1964. An experimental study in existentialism: The psychometric approach to Frankl's neogenic neurosis. *Journal of Clinical Psychology* 20(2):200-207.
- Davitz, J., and L. Davitz. 1976. *Making It from 40 to 50*. New York: Random House.

- Lisenman, R. 1970. Birth order, sex, self-esteem and prejudice against the physically disabled. *Journal of Psychology* 75:147-155.
- Entine, A. D. 1979. Educational programming for mid-life development, pp. 97-102. In Alan B. Knox (ed.), *Programming for Adults Facing Mid-Life Change*. Washington: Jossey-Bass.
- Fishbein, M. 1967. *Readings in Attitude Theory and Measurement*. New York: John Wiley and Sons, Inc.
- Gillis, M. 1972. Study on attitudes of nursing home administrators toward the aged. Austin: University of Texas. (Unpublished manuscript.)
- Gillis, M. 1973. Attitudes of nursing personnel toward the aged. *Nursing Research* 22:517-520.
- Ginzberg, R. 1952. The negative attitude toward the elderly. *Geriatrics* 7:297-302.
- Glass, J. C., Jr., C. Trent, and G. Rice. 1978. The Impact of a Series of Learning Experiences on Ninth-Grade Students' Attitudes Toward the Aged. Raleigh: North Carolina State University.
- Gordon, S. K., and D. S. Hallauer. 1976. Impact of a friendly visiting program on attitudes of college students toward the aged. *The Gerontologist* 16(4):371-376.
- Gunter, L. M. 1971. Students' attitudes toward geriatric nursing. *Nursing Outlook* 19:466-469.
- Halloran, J. D. 1967. *Attitude Formation and Change*. Westport, Connecticut: Greenwood Press Publishers.
- Harris, L., and Associates. 1975. *The Myth and Reality of Aging in America*. Washington, D.C.: National Council on Aging.
- Havighurst, R. J. 1968. A social-psychological perspective on aging. *The Gerontologist* 8:67-71.
- Havighurst, R. J. 1972. *Developmental Tasks and Education*. New York: David McKay Co.
- Hickey, T., A. Hickey, and R. A. Kalish. 1968. Children's perceptions of the elderly. *Journal of Genetic Psychology* 112:227-235.
- Hickey, T., and R. A. Kalish. 1968. Young people's perception of adults. *Journal of Gerontology* 23:215-219.
- Hudis, A. 1974. An introductory course in gerontology. *The Gerontologist* 14:312-315.

- Kahana, E., and R. M. Coe. 1969. Self and staff concepts of institutionalized aged. *The Gerontologist* 9:264, 267-277.
- Kalish, R. A., and A. I. Johnson. 1970. Value similarities and differences in three generations of women. *The Gerontologist* 10(3), Pt. II:39.
- Knapp, B. W., and A. J. Moss. 1963. A comparison of direct and attributed attitudes of younger and older age groups. *The Gerontologist* 3(3), Pt. II:30.
- Knox, A. B. 1977. *Adult Development and Learning*. Washington: Jossey-Bass.
- Kogan, N. 1961. Attitudes toward old people: The development of a scale and an examination of correlates. *Journal of Abnormal and Social Psychology* 62:44-54.
- Kogan, N., and F. C. Shelton. 1962a. Beliefs about old people: A comparative study of older and younger samples. *Journal of Genetic Psychology* 100:93-111.
- Kogan, N., and F. C. Shelton. 1962b. Images of 'old people' and 'people in general' in an older sample. *Journal of Genetic Psychology* 100:3-21.
- Kogan, N., and M. Wallach. 1961. Age changes in values and attitudes. *Journal of Gerontology* 16:272-280.
- Levin, S. 1964. Depression in the aged: The importance of external factors. In R. Kastenbaum (ed.), *New Thoughts on Old Age*. New York: Springer.
- Levinson, D. J. 1978. *The Seasons of a Man's Life*. New York: Alfred A. Knopf.
- Lidz, T. 1968. *The Person*. New York: Basic Books.
- Linden, M. E. 1957. Effects of social attitudes on the mental health of aging. *Geriatrics* 12:109-115.
- MacDonald, A. P. 1971. Relation of birth order to morality types and attitudes toward the poor. *Psychological Reports* 29(3), Pt. I:732.
- McClure, R. F. 1971. Birth order, income, sex, and school related attitudes. *Journal of Experimental Education* 39:73-74.
- McClusky, H. Y. 1975. Education for aging: The scope of the field and perspectives for the future, pp. 324-355. In S. Grabowski and W. D. Mason (eds.), *Learning for Aging*. Washington, D.C.: Adult Education Association and ERIC.

- McKeachie, W. J., and C. L. Doyle. 1966. Psychology. Reading, Massachusetts: Addison Wesley.
- McKenzie, L. 1979. Education for mid-life trauma, pp. 89-96. In Alan B. Knox (ed.), Programming for Adults Facing Mid-Life Change. Washington: Jossey-Bass.
- McTavish, D. G. 1971. Perceptions of old people: A review of research methodologies and findings. *The Gerontologist* 11:90-101.
- Merrill, D. G., and L. M. Gunter. 1969. A study of patient attitudes toward older people. *Geriatrics* 24:107-112.
- Mutschler, P. 1971. Factors affecting choice of and preservation in social work with the aged. *The Gerontologist* 11:231-241.
- Neugarten, B. L. 1968. The awareness of middle age, pp. 93-98. In Bernice L. Neugarten (ed.), Middle Age and Aging. Chicago: University of Chicago Press.
- Neugarten, B. L., and D. L. Gutmann. 1958. Age-sex roles and personality in middle age: A thematic apperception study. *Psychological Monographs* 72 (470).
- Newcomb, T. M., R. H. Turner, and P. E. Converse. 1965. Social Psychology: A Study of Human Interactions. New York: Holt, Rinehart and Winston.
- Newfield, K. P. 1971. Orientation to later maturity: The wishes and the expectations of employed men for their post-65 years. *The Gerontologist* 11(3), Pt. II:50.
- Palmore, E. 1969. Sociological aspects of aging. In E. W. Busse and E. Pfeiffer (eds.), Behavior and Adaptation in Later Life. Boston: Little, Brown.
- Perril, L. S. 1963. The analytical study of attitudes toward aging and the aged. *The Gerontologist* 3(3), Pt. II:34.
- Porter, K., and N. O'Connor. 1978. Changing attitudes of university students to old people. *Educational Gerontology* 3:139-148.
- Rosow, I. 1962. Old age: One moral dilemma of an affluent society. *The Gerontologist* 2:182-191.
- Rosenberg, M. 1965. Society and the Adolescent Self-Image. Princeton: Princeton University Press.
- Rosencranz, H., and T. McNevin. 1969. A factor analysis of attitudes toward the aged. *The Gerontologist* 9:55-59.

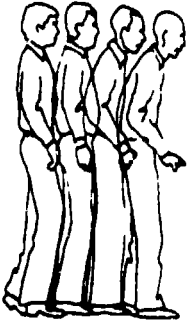
- Ross, R. F., and C. Freitag. 1976. A comparison of adolescent and adult attitudes toward the aged. *Educational Gerontology* 1(3): 291-295.
- Sadowski, B. S. 1978. Attitude toward the elderly and perceived age among two cohort groups as determined by the AAAT. *Educational Gerontology* 3:71-77.
- Searle, S. R. 1971. *Linear Models*. New York: John Wiley and Sons.
- Seefeldt, C., R. K. Jantz, A. Galpur, and K. Serock. 1977. Children's attitudes toward the elderly: Educational implications. *Educational Gerontology* 2:301-310.
- Sheehy, G. 1976. *Passages: Predictable Crises of Adult Life*. New York: E. P. Dutton & Co.
- Sherif, C. W., M. Sherif, and R. E. Nebergall. 1965. *Attitude and Attitude Change: The Social Judgement-Involvement Approach*. Philadelphia: Saunders.
- Silverman, I. 1966. Response-set bias and predictive validity associated with Kogan's attitudes toward old people scale. *Journal of Gerontology* 21:86-88.
- Sizer, L. M., and W. F. Porter. 1960. *The Relation of Knowledge to the Adoption of Recommended Practices*. Bulletin No. 446. Morgantown, West Virginia: Agricultural Experiment Station.
- Spence, D., E. Feigenbaum, F. Fitzgerald, and J. Roth. 1968. Medical student attitudes toward the geriatric patient. *Journal of the American Geriatric Society* 16:976-983.
- Stotland, E., and R. E. Dunn. 1962. Identification, opposition, authority, self-esteem, and birth order. *Psychological Monograph* 79(9):528.
- Thomas, E. C., and K. Yamamoto. 1975. Attitudes toward age: An exploration in school-age children. *International Journal of Aging and Human Development* 6(2):117-129.
- Thorson, J. A. 1975a. Attitudes toward the aged as a function of race and social class. *The Gerontologist* 15(4):343-344.
- Thorson, J. A. 1975b. Variations in attitudes toward aging as a function of educational level. Paper presented to Adult Education Research Conference, St. Louis, Missouri, April 17, 1975.
- Thorson, J. A., L. Whatley, and K. Hancock. 1974. Attitudes toward the aged as a function of age and education. *The Gerontologist* 14:315-318.

- Thurstone, L. L. 1946. Comment. *American Journal of Sociology* 52: 39-40.
- Trent, C., J. C. Glass, Jr., and J. H. Crockett† 1977. The Development and Evaluation of a Series of Educational Experiences Designed to Effect Changes in Adolescents' Attitudes Toward the Aged. Raleigh: North Carolina State University.
- Triandis, H. C. 1971. *Attitude and Attitude Change*. New York: John Wiley and Sons, Inc.
- Troll, L. E., and N. Schlossberg. 1970. A preliminary investigation of 'age bias' in helping professions. *The Gerontologist* 10(3), Pt. II:46.
- Troxler, A. J. 1971. Intergenerational differences in attitudes toward old people. *The Gerontologist* II(3), Pt. II:34.
- Tuckman, J., and I. Lorge. 1952a. Attitudes toward old workers. *Journal of Applied Psychology* 36:149-153.
- Tuckman, J., and I. Lorge. 1952b. The influence of a course on the psychology of the adult on attitudes toward old people and older workers. *Journal of Educational Psychology* 43:400-407.
- Tuckman, J., and I. Lorge. 1953a. Attitudes toward old people. *Journal of Social Psychology* 37:249-260.
- Tuckman, J., and I. Lorge. 1953b. The effect of changed directions on the attitudes about old people and the older worker. *Educational and Psychological Measurement* 13:607-613.
- Tuckman, J., and I. Lorge. 1954a. The influence of changed directions on stereotypes about aging: Before and after instruction. *Educational and Psychological Measurement* 14:128-132.
- Tuckman, J., and I. Lorge. 1954b. Old people's appraisal of adjustment over the life span. *Journal of Personality* 2:417-422.
- Tuckman, J., and I. Lorge. 1956. Perceptual stereotypes about life adjustment. *Journal of Social Psychology* 43:239-422.
- Tuckman, J., and I. Lorge. 1958a. Attitudes toward aging of individuals with experiences with the aged. *Journal of Genetic Psychology* 92:199-204.
- Tuckman, J., and I. Lorge. 1958b. The projection of personal symptoms into stereotypes about aging. *Journal of Gerontology* 13:70-73.
- Tuckman, J., I. Lorge, and G. A. Spooner. 1953. The effect of family environment on attitudes toward old people and the older worker. *Journal of Social Psychology* 38:208-218.

- Weathersby, R. E. 1976. A developmental perspective on adults' uses of formal education. *Dissertation Abstracts International* 38:7085, A.
- Weinberger, L. E., and J. Millham. 1975. A multi-dimensional, multiple method analysis of attitudes toward the elderly. *Journal of Gerontology* 30(3):343-348.
- Wolk, R. L., and R. B. Wolk. 1971. Professional workers' attitudes toward the aged. *Geriatric Society* 19:624-639.

APPENDICES

Appendix A. Leader's Guide to the Workshop Series



FACTS AND FICTION ABOUT AGING

101

SESSION I

Aging--What is It?

Aim: To help the participants:

- (1) Acquaint themselves with some of society's ideas and stereotypes about the aging process.
- (2) Become aware of some of their own reactions to the problems and satisfactions of aging.

Resources Needed:

Materials for name tags--construction paper or 3x5 cards, felt markers, masking tape or straight pins
Cassette tape player
Cassette tape with songs about aging
Copies of "Songs About Aging"
Get Acquainted Activity sheet
China markers
16 mm motion picture projector, screen
Film--Aging
Kogan Attitude Scale for all participants
Purpose In Life Scale for all participants
Information Sheet I
Bibliography

Room Arrangement:

In order to encourage discussion, the room should be arranged with chairs around tables or in a semi-circle. If possible, throughout the room place pictures of healthy older persons doing a variety of activities. Old magazines could be the source of such pictures. Pictures of well-known elderly people who continue to be active in society might also be used.

The film projector and screen should be set and ready for showing.

As workshop participants enter the room, have background music playing from the cassette tape that will be used in Activity D.

Teaching Plans for Session:

A. Name Tags

Prepare name tags out of construction paper or 3x5 cards. Have persons print their names on the name tag with a felt marker. Ask them to print large enough for others to read at a distance. Use masking tape or straight pins to stick the tags to the person.

B. Get Acquainted Activity

Give each participant a copy of the "Get Acquainted Activity" sheet and go over the instructions. After about five minutes, have the total group share some of the names they have found and try to point out those individuals to the group. All the names on the various sheets do not have to be used, but try to see that each person is identified at least once.

Following this activity, the workshop leader may wish to take a few minutes to have the participants introduce themselves to the group. The leader should begin by giving some information to the group about his or herself.

C. Introduce the Workshop

The leader might introduce the six-session study in this manner:

"For six sessions, we will be studying the topic of aging. We have all had experiences with older adults. These experiences may have been through parents, relatives, co-workers, friends or neighbors. In 1977 the U. S. Census Bureau stated that there were approximately 23 million adults aged 65 and older in the United States. The projection for the year 2000 is 31 million adults aged 65 and older. If these figures hold true, we can expect to have even more contact with older adults in our everyday lives.

"This series of workshops was developed at North Carolina State University as an attempt to help adults become better informed about the process of aging with its myths, problems and satisfactions. A study of aging can help us in our contacts with older adults as well as help us better understand the aging process as it affects us personally.

"In an effort to determine if these workshops are effective, we will need your help in filling out some forms. These are not tests, but are a means by which we can see if the learning experiences have any effect on what we think about aging. Some parts of these forms will be administered again at the end of

the six sessions and the results will be compared with the first session to see what changes have occurred.

"At the end of the learning sessions, we will need to be able to identify each person's forms and keep them together. You can facilitate this process if you will put your social security number on the first page. We will ask you to do the same at the end of the course. There will never be any attempt to try to identify any of this information with a particular name. This is only a way to keep the proper information grouped together. Your participation in this part of the project will help give some insights into the effectiveness of this workshop. You will help strengthen the workshop and help contribute to others who may participate in a similar workshop in the future."

D. Administer the Kogan Attitude Scale and the Purpose In Life Scale

The purpose of the Kogan Attitude Scale is to determine present attitudes toward elderly people. The Kogan Scale will be administered again at the end of the workshop and the results will be compared with the first session to see what changes in attitudes have occurred.

The purpose of the Purpose In Life Scale is to determine whether one's purpose in life has some effect on attitudes toward older persons.

As the participants hand in their finished papers, place the forms in a large manilla envelope.

E. Music Activity

The leader should distribute the sheets containing "Songs About Aging" and introduce the next activity with words similar to the following:

"Music is very revealing. It reflects the pleasures, concerns, anxieties and problems of people. Listen to the following songs about aging and follow the words on the sheets. While you are listening, think about the kinds of images of elderly people that are shown in the songs."

At the conclusion of the music, have the group discuss their feelings and reactions to the songs. The following questions could be used as possible discussion questions:

- (1) As you heard "Grandma's Hands," what kinds of thoughts did you have about your own parents or grandparents?
- (2) How is the song "Eleanor Rigby" related to old people?

- (3) What are some of the ideas contained in the song "Hello in There?" Do you think these are true to life?
- (4) What kind of images of elderly people are shown in the songs? Do you feel they are valid images or are they stereotypes? Elaborate.

F. Discussion Activity

In considering the elderly, it is important to understand the problems and satisfactions which are present for this population group. In this activity, the following questions are to be considered:

- (1) What do you see as some of the major problems faced by people over 65 in this community?
- (2) What do you see as some of the major satisfactions of people over 65 in this community?

Divide the class into four discussion groups by having each person count off one number. After the number four has been counted, start over again until everyone is part of group one, two, three or four. Have the groups gather in different sections of the room. Ask groups one and two to discuss question one and groups three and four to discuss question two.

Have each group select a person to record the group's answers and to report to the total group. Ask the recorders to put their groups' answers on newsprint. See that each group has newsprint and a china marker. Approximately ten minutes could be spent in small groups and then the recorders could summarize their ideas to the total group. It will probably take at least fifteen minutes for all the groups to report.

G. Show the Film--Aging

Introduce the film to the group. The following statements might be used:

"People often find it difficult to believe that they will one day be old. But America's population is shifting: the numbers of the aged continue to increase. Society must be prepared to provide for the needs and demands of its older citizens. The rapidly expanding field of gerontology is devoted to studying the process of aging and to finding out more about what it is like to be old.

"This film rebuts the common stereotype that old people constitute one homogeneous group. It emphasizes the individuality of old people, the variety of their needs and desires,

and the joys and satisfactions to be found in older age. It discusses some of the lifestyles followed by older adults in America concentrating on those patterns that seem to provide the most satisfaction."

Ask the participants to look for the following specific things in the film:

- (1) What are some of the commonly held negative stereotypes?
- (2) What are some of the different patterns of aging as discussed by Havighurst?

H. Discussion of Film

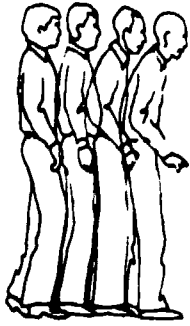
After the film, return to the same groups used in activity F. Ask groups one and two to discuss and react to the stereotypes mentioned in the film. Ask groups three and four to discuss and react to the different patterns of aging and retirement outlined in the film.

Allow about ten minutes for this activity. Have each group select a recorder and then summarize before the total group. The total group might briefly express any further feelings or reactions they have to the stereotypes or patterns of aging.

I. Assignment

Give participants Information Sheet 1, "Aging--Facts and Fables," and Bibliography.

You might wish to tell the group that the Bibliography is for further readings should the participants be interested in continuing their study of the aging process. Several of the references are on topics which will not be covered in the workshops.



**FACTS
AND
FICTION
ABOUT
AGING**

106

Information Sheet 1

AGING -- FACTS AND FABLES

Today, there are 31 million Americans who are 60 years or older. This represents 14.7% of all Americans. These older adults make up the single largest minority in the country.

Total USA population: 213 million
65 and over: approximately 23 million

Below are listed some of the facts and fables about elderly people:

FABLE: Most elderly people are bedridden or institutionalized.

FACT: Only 5% of the elderly population are institutionalized. 95% retain their own households. The majority of elderly people are not disabled and retain good health all their lives.

FABLE: Elderly people often become senile.

FACT: What is diagnosed as "senility" may actually be the by-product of anemia, malnutrition, or infection. Such conditions may be fully reversible. There may be no organic disease at all, in which case psychotherapy may help. With proper care, elderly people can recover from mental breakdowns, just as the young do.

FABLE: Old age means a loss of memory and learning ability.

FACT: Vocabulary and conceptual skills often grow after 60. In the absence of brain disease, old people are not notably more forgetful than young people. Speed of learning may be slower, but the learning may have a deeper value. The capacity to learn new things and to relearn old things is still great and vital.

FABLE: Elderly people are "set in their ways."

FACT: On the contrary, they can be remarkably adaptable. They've had to be. They have lived through more technological and social change than any other group in history--from the horse and buggy to the supersonic transport.

Information Sheet 1

FABLE: Older workers are less capable than young workers.

FACT: Older workers have less absenteeism than young workers. They have fewer on-the-job accidents. They are more satisfied with their jobs in many cases, and they are no less efficient than younger workers.

SONGS ABOUT AGING

WHEN I AM SIXTY-FOUR

By: The Beatles

When I get older, losing my hair
 Many years from now

Will you still be sending me a Valentine
 Birthday greetings, bottle of wine

If I'd been out till a quarter to three
 Would you lock the door?

Will you still need me?
 Will you still feed me?
 When I am 64

You'll be older, too,
 And if you say the word,
 I could stay with you.

I could be handy mending the fuse
 When your lights have gone

You can knit a sweater by the fireside
 Sunday morning go for a ride

Doing the garden, digging the weeds
 Who could ask for more

Will you still need me?
 Will you still feed me?
 When I am 64

Every summer we can rent a cottage
 In the Isle of Wight, if it is not too dear

We shall scrimp and save
 Grandchildren on your knee
 Vera, Chuck and Dave

Send me a post card, drop me a line
 Stating point of view

Indicate precisely what you mean to say
 Yours sincerely, wasting away

Give me your answer, fill in a form
 Mine forevermore

Will you still need me?
 Will you still feed me?
 When I am 64

ELEANOR RIGBY

By: The Beatles

Organ music ah..h..h
 Look at all the lonely people
 Organ music ah..h..h
 Look at all the lonely people
 Eleanor Rigby
 Picks up the rice in the church
 Where the wedding has been
 Lives in a dream
 Waits at the window
 Wearing a face that she keeps
 In a jar by the door
 Who is it for? ---
 All the lonely people
 Where do they all come from?
 All the lonely people
 Where do they all belong?
 Father McKensie
 Writing the words of a sermon
 That no one will hear
 No one comes near
 Look at him working
 Darning his socks in the night
 When there's nobody there
 What does he care?
 All the lonely people
 Where do they all come from?
 All the lonely people
 Where do they all belong?
 Eleanor Rigby
 Died in the church
 And was buried along with her name
 Nobody came
 Father McKensie
 Wiping the dirt from his hands
 As he walks from the grave
 No one will say
 All the lonely people
 Where do they all come from?
 All the lonely people
 Where do they all belong?

BOOKENDS THEME SONG

By: Simon and Garfunkel

Time it was,
 And what a time it was,
 It was . . .
 A time of innocence
 A time of confidences.
 Long ago . . . it must be . . .
 I have a photograph
 Preserve your memories;
 They're all that's left you.

OLD FRIENDSBy: Simon and Garfunkel
Album: "Bookends"

Old friends,
 Old friends
 Sat on their park bench
 Like bookends.
 A newspaper blown through the grass
 Falls on the round toes
 The high shoes
 Of the old friends.
 Old friends,
 Winter companions,
 The old men
 Lost in their overcoats,
 Waiting for the sunset.
 The sounds of the city,
 Sifting through trees,
 Settle like dust
 On the shoulders
 Of the old friends.
 Can you imagine us
 Years from today,
 Sharing a park bench quietly?
 How terribly strange
 To be seventy.
 Old friends,
 Memory brushes the same years
 Silently sharing the same fear . . .

GRANDMA'S HANDS
By: Bill Withers

Grandma's Hands --
Clapped in church on Sunday morning

Grandma's Hands --
Played a tambourine so well

Grandma's Hands --
Used to issue out a warning

She's say:
"Billy, don't ya run so fast,
Might fall on a piece of glass . . .
Might be snakes there in that grass"

Grandma's Hands -- (Music)

Grandma's Hands --
Soothe a locolump with butter

Grandma's Hands --
Used to ache sometimes and swell

Grandma's Hands --
Used to lift a face and tell us

She's say:
"Baby, Grandma understand --
That you really love that Man
Put yourself in Jesus' Hands"

Grandma's Hands -- (Music)

Grandma's Hands --
Used to hand me piece of candy

Grandma's hands --
Picked me up each time I fell

Grandma's Hands -- Boy!
They really came in handy

She's say:
"Mattie, don't you whip that boy
What you wanna spank him for
He didn't drop no apple core"
But I don't have Grandma anymore

If I get to heaven, I'll look for
Grandma's Hands ... (Music)
uh...mm... uh... u... h... m...

HELLO IN THERE

By: John Prine

We had an apartment in the city
 And me and Loretta liked living there
 It'd been years since the kids had grown
 A life of their own
 And left us alone
 John and Linda live in Omaha
 And Joe is somewhere on the road
 We lost Davy in the Korean War
 I still don't know what for
 Don't matter anymore

Chorus

Ya know, that old trees just grow stronger
 And old rivers grow wilder everyday
 Old people just grow lonesome
 Waiting for someone to say
 Hello in there
 Hello

Me and Loretta, we don't talk much more
 She sits and stares thru the back door screen
 And all the news just repeats itself
 Like some forgotten dream
 That we've both seen
 Someday I'll go and call up Rudy
 We worked together at the factory
 But what could I say when he asks "What's new?"
 Nothing, what's with you?
 Nothing much to do

Repeat chorus

So if you're walking down the street sometime
 And spot some hollow ancient eyes
 Please don't just pass'em by and stare
 As if you didn't care
 Say hello in there
 Hello

GET ACQUAINTED ACTIVITY

Write your full name lengthwise down the left hand side of the page. Find as many people as possible whose names begin with any of the letters of your name. You may use their first, middle, or last names. Write the names crosswise beginning with the matching letter in your name. To help later identify the group members, you might include their other names along with the name you use. Try to see if you can find a name for every letter in your name.



BIBLIOGRAPHY

Burger, Sarah Greene and D'Erasmus, Martha. Living in a Nursing Home: A Complete Guide for Residents, Their Families and Friends. New York: The Seabury Press, 1976.

Excellent handbook for professionals and paraprofessionals as well as residents and their families. Deals with all aspects of planning for admission and living in the home.

Comfort, Alex. A Good Age. New York: Crown Publishers, 1976.

A leading gerontologist gives a realistic overview of aging with an aim at demystification of the aging process. Well organized with excellent illustrations.

Downs, Hugh. Thirty Dirty Lies About Old Age. Niles, Illinois: Argus Communications, 1979.

A witty, easy to read, book stressing aging as a positive developmental process.

Gould, Roger. Transformations: Growth and Change in Adult Life. New York: Simon and Schuster, 1978.

Written by a psychiatrist from numerous case studies. Book is concerned with the self-awareness which occurs in adult development.

Kubler-Ross, Elisabeth. On Death and Dying. New York: Macmillan, 1969.

Simply and affectionately written, discusses this psychiatrist's work with dying patients in terms of the "stages" of the dying process and her approach of helping by learning from the dying person.

Lidz, Theodore. The Person: His and Her Development Throughout the Life Cycle. New York: Basic Books, Inc., 1968.

Centers on personality development from birth to death with good sections on the middle years and old age. Written by a professor of psychiatry but easy to read in spite of academic orientation.

Pruner, Morton. To the Good Long Life: What We Know About Growing Old. New York: Universe Books, 1974.

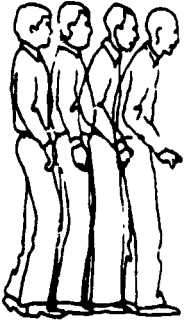
Easy reading. Good overview of the varied aspects of the aging process.

Sheehy, Gail. Passages: Predictable Crises of Adult Life. New York: E. P. Dutton and Co., Inc., 1976.

A popularized treatment of the stages of adult development. Sheehy draws her information from recent research in this area as well as personal interviews.

Solnick, Robert, ed. Sexuality and Aging. University of Southern California: The Ethel Percy Andrus Gerontology Center, 1978.

A good collection of articles on the effects of aging on sexuality. The recurrent theme is one of companionship and varied expression of sexuality.



FACTS AND FICTION ABOUT AGING

115

SESSION II

Why Should We Be Concerned?

Aim: To help participants:

- (1) Bring themselves in touch with their feelings about their own aging process.
- (2) Visualize themselves as older adults.

Resources Needed:

Large sheets of newsprint or butcher paper
Crayons or colored pencils
China markers or pencils
Masking tape
Rubber cement
Cassette player
Cassette tape, "Caring as a Way to Self"
Old magazines and newspapers
Life Inventory Questionnaire
Information Sheet 2
Information Sheet 3
Scissors

Room Arrangement:

Arrange the chairs around four tables. Have available for each group several sheets of newsprint or butcher paper, scissors, masking tape, old magazines and newspapers, crayons or colored pencils, and rubber cement.

Teaching Plans for Session:

A. Collages

As the participants enter the room, have them sit in one of the groups. The purpose of this activity is to have the groups find advertisements, pictures, quotes or stories in the magazines or newspapers that present some image of older adults. The participants should make a collage by taping or gluing the pictures and advertisements to the newsprint or butcher paper, adding any quotes found in crayon or colored pencil. At least thirty minutes will be needed to complete the collages.

The following statements might be used to introduce this activity:

"The images which society perceives for any group can be very important for they will affect how people respond to and interact with this group. The images which we have of older adults can be easily found in our everyday lives. See what images of aging you can find in the magazines and newspapers and then make a collage which will illustrate these images."

B. Discussion Activity

After the collages are completed, have each group tape their's to the wall. A reporter from each group should briefly describe their collage to the total group. After all the reports have been presented, ask the total group what images these collages bring to mind. The following questions might be asked to initiate discussion:

- (1) Do the images differ for men and for women?
- (2) Do the images confirm your view of the aged?
- (3) What aspects of aging are seen repeatedly?
- (4) Which of the images are stereotypes?

C. Draw Pictures

Pass out large pieces of newsprint (one to each person), china markers or pencils, crayons or colored pencils. Ask the participants to draw pictures of themselves as an old person, making it as detailed as possible. Ask them to consider the following questions as they draw their pictures:

- (1) What will you look like physically?
- (2) Will you be using a cane, wheelchair, glasses, hearing aid?
- (3) What kind of clothes will you be wearing?
- (4) How will you feel about life?
- (5) What are some of the activities you might be doing?

After the participants have drawn their pictures, have each person share his/her picture with the total group. Get them to elaborate a little about "how they will feel about life" and "some of the activities they might be doing."

D. Life Inventory

Divide the class into groups of three. In each group, one person becomes the interviewer, one the interviewee, and the third person becomes the recorder. The leader should also become a member of a group for this activity.

Give the interviewer a copy of the attached Life Inventory sheet so he or she can ask questions of the interviewee. Explain to the persons being interviewed that they are to project ahead and answer the questions as if they were 69 years old looking back on their lives. The recorders should take down some of the key ideas, but the recorder is not to enter into the interview. After five minutes, rotate roles within each group. Five minutes later, rotate again. At the conclusion of this activity, each person should have served as interviewer, interviewee and recorder.

Following the interviews, ask the total group what they felt as they were responding to the Life Inventory. What kind of reactions did they have as they tried to project themselves as 69 years old? This portion of the session might be concluded by asking, "Do you think that there is any truth to the statement that the kind of person you are at 69 is largely dependent on what your life was like before that age?" Have the respondents to elaborate on their responses, whether the answer be "yes" or "no."

E. Listening to Tape

Give the participants Information Sheet 2, "Caring As a Way to the Self."

Play the tape, "Caring As a Way to the Self."

The tape might be introduced in this way:

"The tape you are about to hear is a passage taken from a small paperback book called Aging. It was written by Henri Nouwen and Walter Gaffney. Aging is a beautifully written essay on the gentle art of growing old gracefully and enjoying it at the same time. The passage on the tape pertains to 'making ourselves available to the experience of becoming old.'"

After the tape, ask the students to react to what they heard.

F. Assignment

Give participants Information Sheet 3, "Aging -- Physical Changes and Needs." Ask participants to read the sheet before the next session. Urge them to bring the sheet to the next session.



FACTS AND FICTION ABOUT AGING

119

Information Sheet 2

CARING AS A WAY TO THE SELF

Our first question is not how to go out and help the elderly, but how to allow the elderly to enter into the center of our own lives, how to create the space where they can be heard and listened to from within with careful attention. Quite often our concern to preach, teach, or cure prevents us from perceiving and receiving what those we care for have to offer. Does not healing, first of all, take place by the restoration of a sense of self-worth? But how can that take place unless there is someone able to discover the beauty of the other and willing to receive it as a precious gift? Where else do we realize that we are valuable people except in the eyes of those who by their care affirm our own best self?

To receive the elderly into our inner self, however, is far from easy. Old age is hidden not just from our eyes, but much more from our feelings. In our deepest self we keep living with the illusion that we will always be the same. We not only tend to deny the real existence of old men and women living in their closed rooms and nursing homes, but also the old man or woman who is slowly awakening in our own center. They are strangers, and strangers are fearful. They are intruders threatening to rob us of what we consider our own.

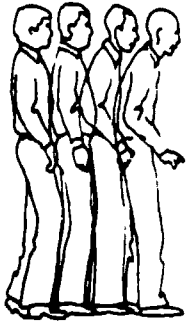
Not too long ago a thirty-two year old, good looking, intelligent man, full of desire to live a creative life, was asked: "Jim, what are your plans for the future?" And when he answered: "I want to work with the elderly and I am reading and studying to make myself ready for that task," they looked at him with amazement and puzzlement. Someone said: "But, Jim, don't you have anything else to do?" Another suggested: "Why don't you work with the young? You'll really be great with them." Another excused him more or less, saying: "Well, I guess you have a problem which prevents you from pursuing your own career." Reflecting on these responses, Jim said: "Some people make me feel as if I have become interested in a lost cause, but I wonder if my interest and concern do not touch off in others a fear they are not ready to confront, the fear of becoming an old stranger themselves."

Thus, care for the elderly means, first of all, to make ourselves available to the experience of becoming old. Only he who has recognized the relativity of his own life can bring a smile to the face of a man or woman who feels the closeness of death. In that sense, caring is first a way to our own aging self, where we can find the healing powers for all

Information Sheet 2

those who share in the human condition. No guest will ever feel welcome when his host is not at home in his own house. No old man or woman will ever feel free to reveal his or her hidden anxieties or deepest desires when they only trigger off uneasy feelings in those who are trying to listen. It is no secret that many of our suggestions, advice, admonitions, and good words are often offered in order to keep distance rather than to allow closeness. When we are primarily concerned with giving old people something to do, offering them entertainment and distractions, we might avoid the painful realization that most people do not want to be distracted, but heard; not entertained, but sustained.

Nouwen, H. J. M. and W. J. Gaffney. Aging, The Fulfillment of Life.
Garden City: Doubleday & Co., 1976. (pp. 101-103)



FACTS AND FICTION ABOUT AGING

121

Information Sheet 3

AGING -- PHYSICAL CHANGES AND NEEDS

Many of the health problems plaguing older people can be avoided or alleviated. Many old people do not get proper medical treatment. They often avoid going to the doctor until it is too late. Sometimes they simply cannot afford medical help.

FACT: Four major chronic diseases that occur more frequently as aging progresses are heart disease, hypertension, diabetes and arthritis.

FACT: Visual problems are twice as prevalent among older people as among the middle-aged. The pupil of the eyes will not open as wide and the lens tends to yellow as one ages, thus reducing the amount of light entering the eye. We must compensate with increased non-glare light. It takes twice as much light to do the same job at 60 as at age 20.

FACT: Two-thirds of the elderly population experience some hearing loss. Maximum hearing ability is attained at about 15, followed by a gradual loss throughout the life span.

FACT: Health problems of some older people stem from the fact that they do not get adequate nourishment and exercise.

- A. Limited money often makes it impossible to purchase adequate amounts of nourishing foods. One-fifth of the elderly have income below the poverty line.
- B. Dental problems may result in eating difficulties.
- C. Poor physical condition or loneliness may lead to disinterest in food.
- D. Diminished sharpness of the senses, particularly the taste buds, may affect the appetite.
- E. Interest in food fads may result in unbalanced diets.
- F. Regular exercise may help to slow down some of the changes which often accompany aging.

Information Sheet 3

FACT: The aging process is gradual and the body adapts and compensates to the changes which are occurring. For this reason, the person is often not aware that the changes are taking place.



FACTS AND FICTION ABOUT AGING

123

SESSION III

Problems and Satisfactions of Aging

Aim: To help participants:

- (1) Become acquainted with the physical changes and needs of aging.
- (2) Understand some of the adjustments that can be made to cope with these changes and needs.

Resources Needed:

Cellophane paper
Frames from eyeglasses
Cotton balls
Slide projector and cassette player
Slides -- "Age Related Sensory Losses--An Empathic Approach"
Information Sheet 3
Information Sheet 4
Old magazines

Teaching Plans for Session:

A. Simulation Activity

The purpose of this activity is to have the participants involved in a learning situation in which they experience sensory deprivation. Give half of the participants a pair of glasses with cellophane paper covering the lens to distort vision and give the other half of the participants cotton to be placed in their ears to lower their hearing threshold.

Divide the participants into pairs (one wearing glasses and one wearing cotton earplugs). Ask the individuals wearing glasses to read a short small-print article from a magazine to the ones wearing cotton earplugs. Then have them take off the glasses and the cotton earplugs and have those wearing earplugs tell their partners what they heard. Then reverse the activity. Allow about 10 minutes for this activity.

Summarize reactions of the entire group by discussing the following questions:

- (1) How did you feel while you were doing this activity?
- (2) What difficulties did you experience with hearing loss and eyesight loss?
- (3) How do you think these kinds of losses affect elderly people's lives?

B. Slide Presentation

Show slides on sensory deprivation -- "Age Related Sensory Losses--An Empathic Approach"

Afterward, in the total group, briefly discuss reactions to the slides and compare with the actual deprivation experience in Activity A.

C. Small Group Discussion

Divide the participants into groups of three to four persons. Introduce the activity by using words similar to these:

"Based on the material you read in Information Sheet 3, 'Aging -- Physical Changes and Needs,' the sensory deprivation exercise you experienced at the beginning of this session, and the slide presentation we just saw, discuss the following questions:

- (1) What types of adjustments can the individual make to help cope with the physical changes associated with aging.
- (2) What types of adjustments can be made in the environment to help the older adult cope with these changes?"

D. Total Group Discussion

As a total group, discuss the questions listed in Activity C. Following that discussion, continue by using the following questions:

- (1) What are some things we personally can do in the near future to help the adjustment of those older adults with whom we frequently come in contact (parents, co-workers, brothers and sisters, friends, etc.)? Identify some specific things.
- (2) What are some things we can start doing now that will help us as we attempt to adjust to our own physical aging?

If no one mentions it, be sure to emphasize the importance of regular exercise and good nutrition in alleviating or slowing down many of the physical changes related to aging.

E. Assignment

Give participants Information Sheet 4, "Aging -- Developmental Tasks of Life."



**FACTS
AND
FICTION
ABOUT
AGING**

126

Information Sheet 4

AGING -- DEVELOPMENTAL TASKS OF LIFE

1. Developmental tasks of infancy and early childhood:
 1. Learning to walk.
 2. Learning to take solid foods.
 3. Learning to talk.
 4. Learning to control the elimination of body wastes.
 5. Learning sex differences and sexual modesty.
 6. Forming concepts and learning language to describe social and physical reality.
 7. Getting ready to read.
 8. Learning to distinguish right and wrong and beginning to develop a conscience.

2. Developmental tasks of middle childhood:
 1. Learning physical skills necessary for ordinary games.
 2. Building wholesome attitudes toward oneself as a growing organism.
 3. Learning to get along with age-mates.
 4. Learning an appropriate masculine or feminine social role.
 5. Developing fundamental skills in reading, writing, and calculating.
 6. Developing concepts necessary for everyday living.
 7. Developing conscience, morality, and a scale of values.
 8. Achieving personal independence.
 9. Developing attitudes toward social groups and institutions.

3. Developmental tasks of adolescence:
 1. Achieving new and more mature relations with age-mates of both sexes.
 2. Accepting one's physique and using the body effectively.
 3. Achieving emotional independence of parents and other adults.
 4. Preparing for marriage and family life.
 5. Preparing for an economic career.
 6. Acquiring a set of values and an ethical system as a guide to behavior.
 7. Desiring and achieving socially responsible behavior.

Information Sheet 4

4. Developmental tasks of early adulthood:

1. Selecting a mate.
2. Learning to live with a marriage partner.
3. Starting a family.
4. Rearing children.
5. Managing a home.
6. Getting started in an occupation.
7. Taking on civic responsibility.
8. Finding a congenial social group.

5. Developmental tasks of middle age:

1. Assisting teen-age kids to become responsible and happy adults.
2. Achieving adult social and civic responsibility.
3. Reaching and maintaining satisfactory performance in one's occupational career.
4. Developing adult leisure-time activities.
5. Relating oneself to one's spouse as a person.
6. To accept and adjust to the physiological changes of middle age.
7. Adjusting to aging parents.

6. Developmental tasks of later maturity:

1. Adjusting to decreasing physical strength and health.
2. Adjustment to retirement and reduced income.
3. Adjusting to death of a spouse.
4. Establishing an explicit affiliation with one's age group.
5. Adopting and adapting social roles in a flexible way.
6. Establishing satisfactory physical living arrangements.

Havighurst, Robert



SESSION IV

Problems and Satisfactions of Aging

Aim: To help the participants:

- (1) Become acquainted with some of the psychological aspects of aging.
- (2) Familiarize themselves with the Adult Developmental Tasks concept.

Resources Needed:

Cassette player
Film strip projector
Film strip--"How Would You Like to Be Old?"
Information Sheet 4
Information Sheet 5
Sheets for Case #1, #2, #3, and #4

Teaching Plans for Session:

A. Review Developmental Tasks

Briefly review the Developmental Tasks concept using Information Sheet 4. Ask the participants if they have any questions regarding the ideas presented in the Information Sheet.

B. Film Strip

Show the film strip, "How Would You Like to Be Old?"

The following introduction might be used for Part I of the film strip:

"This film is divided into two parts. Part I considers the problems that beset many of our elderly citizens. As you view this portion of the film, see if you can identify some of the problems of the elderly along with some of the developmental tasks portrayed in the film."

The following introduction might be used with Part II:

"Part II opens by setting forth some of the useful contributions that the aged can make to society. Part II also suggests methods of improving social conditions for the elderly.

"Part II concludes with the elderly explaining ways in which old age can be made a useful, productive and fulfilling period. Look for the contributions and satisfactions along with other developmental tasks faced by older adults."

C. Discussion Activity

After the film, divide the group into four small groups by having the participants count off one through four until each person is assigned to a particular group. Ask groups one and two to list and discuss some of the problems faced by elderly people that were indicated in the film and to pick out the developmental tasks illustrated in the film. (Participants can refer to Information Sheet 4, "Aging--Developmental Tasks of Life," as they discuss their questions.)

Ask groups three and four to discuss some of the contributions that the elderly can make to society as indicated in the film and ways in which old age can be made a useful, productive and fulfilling period. Ask them also to identify any developmental tasks they discovered in the film.

Allow about 10-15 minutes for this activity. Ask each group to select a recorder and summarize to the total group.

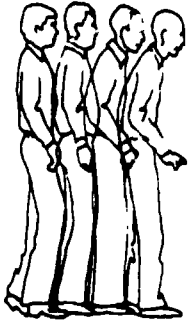
D. Case Studies

If time allows, divide the class into the same groups as in Activity C. Give each group a case study (see attached) to analyze. Ask them to determine the developmental tasks that are being illustrated in the study and to suggest possible solutions to the problems presented.

Allow about 10-15 minutes for this activity. Ask the groups to select a recorder and summarize before the total group. After each report, a brief time might be allowed for the total group to react to the "solution."

E. Assignment

Give participants a copy of Information Sheet 5, "Aging--Coping with Retirement."



FACTS AND FICTION ABOUT AGING

130

Information Sheet 5

AGING -- COPING WITH RETIREMENT

There are a number of different patterns of adjustment to aging and retirement--some successful and some unsuccessful. The way persons grow old depends to a degree on their personality--what their psychological drives are and their ability to satisfy these drives in old age. In some cases, poor adjustment to aging can be seen to stem from lifelong personality problems.

There are two well-known theories that pertain to psychological adjustments in retirement, as discussed by Robert Havighurst and Bernice Neugarten:

1. Activity Theory

Except for the biological changes in health, older people are the same as middle-aged people with essentially the same needs. This theory maintains that continuous activity all during one's lifetime, with no noticeable decline at retirement age, is the way to stay happy.

2. Disengagement Theory

As people age, they are happiest if they withdraw from the environment. Pressures to perform are reduced; and, at the same time, society disengages from the older person, focuses on younger people, thus satisfying society and the individual. This theory views old age as a new, separate part of life.

Both activity and disengagement can occur among those well adjusted to aging. Research indicates that there are different, but equally successful, patterns of adjustment to aging.

Many older persons accept a decline in activity as an inevitable fact of growing old and they continue to maintain a sense of self-worth and satisfaction with past and present life. Other people have negative feelings regarding the loss of activity and are dissatisfied with their lives.

CASE #1

Mr. and Mrs. Freddie Freeburg have recently retired from the local textile mill after working there for about 45 years. They are in reasonably good health. Mrs. Freeburg seems to be enjoying her retirement as she has many hobbies she wishes to pursue, but Mr. Freeburg is bored and depressed and he finds it difficult to find enough constructive things to do during the days to keep busy. They live close to a community college and he has thought of taking a class but he's frightened of the idea of returning to school.

Identify the developmental tasks portrayed in the above case.

CASE #2

Sara Sawyer is 72 years old and in good physical condition except for poor eyesight. Two months ago Sara's driver's license was revoked because of her eyesight. Since that time, she has been dependent on others to take her to church, the grocery store and wherever she needs to go. It is often difficult for her to arrange transportation.

Identify the developmental tasks portrayed in the above case.

CASE #3

John Johnson is 69, retired, and has recently lost his wife. Before she died, they had an active life together, traveling and enjoying numerous hobbies. Mr. Johnson is very lonely and is going to move to a retirement home. He has a house and lots of furniture and various valuable collections which he probably won't have room for in the retirement home.

Identify the developmental tasks portrayed in the above case.

CASE #4

Ben and Bess Beasley are 63 years old and have been sharecroppers all their lives. Their health is declining and they are not able to work much, so they have very little income. Their house needs a new roof and the well is not working properly. Bess needs special glasses and an operation for cataracts but they can't afford it.

Identify the developmental tasks portrayed in the above case.



FACTS AND FICTION ABOUT AGING

135

SESSION V

Problems and Satisfactions of Aging

Aim: To help the participants:

- (1) Become acquainted with some of the specific problems and satisfactions of aging as discussed by elderly people from the community.
- (2) Encounter older adults who have positive attitudes toward life and their own age.

Resources Needed:

Retired persons
Information Sheet 6

Room Arrangement:

A table with five chairs for the panel should be placed in front of the room.

Teaching Plans for the Session:

A. Panel Discussion

Invite five well-adjusted retired people to participate in a question and answer period. Try to select people who are active and have a positive attitude toward life.

Ask each panel member to spend three or four minutes telling about the problems, joys and satisfactions of being retired. Afterward, allow time for the participants to ask questions and react to the discussion.

The following questions might be asked the panel to initiate discussion if questions are slow coming from the total group:

- (1) What kinds of things do you do during the day?
- (2) Do you have grandchildren or family members around?
- (3) What do you find most enjoyable about retirement?
- (4) What do you find least enjoyable about retirement?

B. Small Groups

Divide the class into five small groups. Ask a panel member to join each group and interact with the participants.

Each group should be free to explore any area they wish with the older person. Encourage them to question and find out as much as possible about what the life of a retired person is like and how the retired person views life.

C. Social Time

If possible, the evening should be ended with refreshments and informal "mingling."

D. Assignment

Give participants Information Sheet 6, "The Enriching Quality of Aging."



**FACTS
AND
FICTION
ABOUT
AGING**

Information Sheet 6

THE ENRICHING QUALITY OF AGING

Growing older is continuous from birth to life's end. Aging involves the total person--the personality from birth to death.

"The care of the old for the young is no different from the care of the young for the old. Real care takes place when we are no longer separated by the walls of fear but have found each other on the common ground of the human condition. . .

Only when we are able to receive the elderly as our teachers will it be possible to offer the help they are looking for. As long as we continue to divide the world into the strong and the weak, the helpers and the helped, the givers and the receivers, the independent and the dependent, real care will not be possible, because then we keep broadening the dividing lines that caused the suffering of the elderly in the first place.

Just as the greatest gift to the East is to allow the East to change the West, the most important contribution to the elderly is to offer them a chance to bring us into a creative contact with our own aging. Just as the handicapped should remind us of our limitations; the blind, our lack of vision; the anxiety-ridden, our fears; and the poor, our poverty--so the old should remind us of our aging. Thus we can be brought in touch with the fullness of the life experience by an inner solidarity with all human suffering and all human growth. This inner solidarity is the basis of the human community where real care and healing can take place. Therefore, we entered into the darkness so that we might come to the light, and we spoke about the aging self to come to a fuller care of the aging others.

Aging is one of the most essential human processes, one that can be denied only with great harm. Every man and woman who has discovered or rediscovered his or her own aging has a unique opportunity to enrich the quality of his or her own life and that of every fellow human being."

Nouwen, H. J. M. and W. G. Gaffney. Aging, The Fulfillment of Life.
Garden City: Doubleday & Co., 1976. (pp. 101-103)



FACTS AND FICTION ABOUT AGING

138

SESSION VI

Getting It All Together

Aim: To help the participants:

- (1) Continue to get in touch with their own aging process.
- (2) Understand the commonalities which all people share with older adults.
- (3) Reach a closure between their past and present feelings about aging.

Resources Needed:

Newsprint
China markers
Cassette player
Cassette tape--"The Enriching Quality of Aging"
Chalkboard, Chalk
Kogan Attitude Scale
Information Sheet 6
Information Sheet 7

Room Arrangement:

Participants should be seated around tables for epitaph activity.

Teaching Plans for Session:

A. Reaction to Panel

Ask the group to share their reactions to the panel discussion and small group discussion with the older adults last session.

B. Epitaph Activity

Sometimes it helps to gain perspective of life by contemplating death. What is life all about? What difference would it make if you were not alive? This epitaph activity can help the group look at the meaning of their lives in a simple but challenging way.

This activity might be introduced by saying something like:

"Have any of you ever been to old graveyards and read some of the inscriptions on the tombstones?"

For example:

'Ezra Jones lived as he died. Out of debt, out of sight and out of sorts.'

'Sara Miller, A Woman of Valor.'

"What would you want engraved on your own tombstone? What would be an accurate description of you and your life in a few short words?"

Have each participant take some newsprint, draw a tombstone on it and put his or her epitaph on it.

You, as leader, should also participate in this activity. The leader must be willing to share his or her thoughts if he/she expects the participants to do so.

After everyone is finished, the epitaphs might be placed on the walls. Ask the following questions and discuss:

- (1) What was your reaction to this exercise?
- (2) Did it say anything to you about your own aging process? Explain.
- (3) Did this activity say anything to you about the kind of person you want to be when you grow old? Explain.

C. Listing of Universal Human Needs

This activity might be introduced in the following manner:

"For the past five sessions, we have been looking at older adults as a particular group of people with their own unique problems and satisfactions. For just a few minutes let's broaden our scope to consider all people, regardless of age. Let's see if we can list the needs which all human beings share in common. What are some universal human needs, no matter how old we are?"

Have the group quickly name as many universal human needs as they can. Record these needs on newsprint or chalkboard. While this list will probably include such tangible needs as food, clothing, shelter, transportation and health care, it should also include intangible needs such as self-esteem, affection, intimacy and autonomy. If the group fails to mention such needs, you might add one or two intangible needs

to the list in order to help the group think along those lines. There will not be enough time for the group to prepare an exhaustive list; however, the list should be representative of universal human needs.

D. Total Group Discussion of List

Upon completing the list of universal human needs, have the total group discuss the following questions:

- (1) Where do the needs of the elderly fit in this list?
- (2) Are there any needs which are unique to the elderly which have not been listed?
- (3) What implications can be drawn regarding the commonalities which the elderly share with all population groups? Elaborate.

E. Play Tape

Play the tape, "The Enriching Quality of Aging." Participants might want to have their copies of Information Sheet 6 at hand.

Ask the group for any reactions or comments which they have to this tape.

F. Information Sheet 7

Pass out Information Sheet 7, "Concerning Old Age." As leader, you may wish to read these quotations with the participants following along.

Ask for any reactions or comments. Were there any quotes which they particularly liked? Particularly disliked? Why?

You might close this activity by having the group discuss the question: "What can people like ourselves do to help all persons (young and old alike) to understand and appreciate aging?"

G. Total Group Discussion

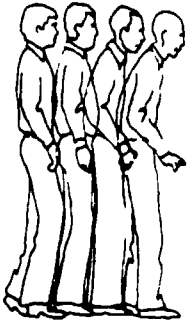
In order to determine changes in attitudes during the last six weeks, ask the following questions and discuss:

- (1) How do you feel now about the elderly?
- (2) How do you feel about your own aging?
- (3) Have you experienced any changes in feelings about yourself as a person?

H. Administer the Kogan Attitude Scale

The leader may wish to say the following:

"In order to measure the effectiveness of this workshop, we are asking you now to complete one of the questionnaires that you completed six weeks ago. Please put your social security number on the form just as you did before so that we can keep your two questionnaires together. Remember that there will be no attempt to identify persons with their answers. We only want to be able to keep an individual's responses together. Thanks for your help in this."



**FACTS
AND
FICTION
ABOUT
AGING**

142

Information Sheet 7

CONCERNING OLD AGE

"Each person is his own time clock, some going much faster than others." (Havighurst, "Older People")

"Aging is becoming. It involves the total person--the personality from birth to death."

"Do not go gentle into that good night; old age should burn and rave at the close of day; Rage, rage against the dying of the light." (Dylan Thomas)

"He is the happier man who can see the connection between the end and the beginning of life." (Goethe)

"Yes, my darling, you will be
Always young and fair to me."
(From the song, "Silver Threads Among the Gold")

"Aging is not an event that takes place overnight, but a process that begins at the time of conception and continues throughout life." (Herman Loether)

"Most men lead lives of quiet desperation." (Thoreau)

"It is a pity that youth is wasted on young people." (George Bernard Shaw)

"Maybe the real reason old people are shut away to die is that we just can't stand the sight of them, possibly because we can't stand the thought of our own old age." (From the filmstrip, "How Would You Like to Be Old?")

"Our oppressive, paternalistic society wants to keep us old folks out of the way, playing bingo and shuffleboard." (Maggie Kuhn)

"We believe that aging is not a reason for despair, but a basis for hope, not a slow decaying, but a gradual maturing; not a fate to be undergone, but a chance to be embraced." (From the book, Aging.)

"Old age is not a defeat--but a victory,
Not a punishment--but a privilege."
(Ethel Percy Andrus)

"The years from thirty to seventy were formerly a sort of dump for the consequences of the first three decades; now they are the main part of life, the years of work, expression and complete self-discovery, to which these earlier years are the bright, delightful prelude." (H. G. Wells)

Appendix B. The Kogan O.P. Scale

PERCEPTIONS OF OLDER ADULTS

Please indicate your honest feelings about each of the following statements by placing a circle 0 around a letter or letters using this code:

SA = Strongly agree DS = Disagree slightly
 A = Agree D = Disagree
 AS = Agree slightly SD = Strongly disagree

- | | |
|---|-----------------|
| 1. It probably would be better if most old people lived in residential units with people their own age. | SA A AS DS D SD |
| 2. Most old people are capable of new adjustments when the situation demands it. | SA A AS DS D SD |
| 3. Most old people tend to let their homes become shabby and unattractive. | SA A AS DS D SD |
| 4. Old people have too little power in business and politics. | SA A AS DS D SD |
| 5. Most old people bore others by their insistence on talking about the "good old days." | SA A AS DS D SD |
| 6. When you think about it, old people have the same faults as anybody else. | SA A AS DS D SD |
| 7. There are a few exceptions, but in general most old people are pretty much alike. | SA A AS DS D SD |
| 8. Most old people are cheerful, agreeable, and good humored. | SA A AS DS D SD |
| 9. Most old people make excessive demands for love and reassurance. | SA A AS DS D SD |
| 10. Most old people are really no different from anybody else: they're as easy to understand as younger people. | SA A AS DS D SD |
| 11. Most old people would prefer to quit work as soon as pensions or their children can support them. | SA A AS DS D SD |
| 12. It is foolish to claim that wisdom comes with old age. | SA A AS DS D SD |

13. Most old people are very relaxing to be with. SA A AS DS D SD
14. Most old people spend too much time prying into the affairs of others and giving unsought advice. SA A AS DS D SD
15. You can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it. SA A AS DS D SD
16. Most old people should be more concerned with their personal appearance; they're too untidy. SA A AS DS D SD
17. One seldom hears old people complaining about the behavior of the younger generation. SA A AS DS D SD
18. There is something different about most old people: it's hard to figure out what makes them tick. SA A AS DS D SD
19. Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody. SA A AS DS D SD
20. People grow wiser with the coming of old age. SA A AS DS D SD
21. Most old people make one feel ill at ease. SA A AS DS D SD
22. Most old people respect others' privacy and give advice only when asked. SA A AS DS D SD
23. In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it. SA A AS DS D SD
24. Most old people seem to be quite clean and neat in their personal appearance. SA A AS DS D SD
25. Most old people are constantly complaining about the behavior of the younger generation. SA A AS DS D SD
26. It would probably be better if most old people lived in residential units that also housed younger people. SA A AS DS D SD
27. Most old people get set in their ways and are unable to change. SA A AS DS D SD
28. Most old people can generally be counted on to maintain a clean, attractive home. SA A AS DS D SD
29. Old people have too much power in business and politics. SA A AS DS D SD

30. One of the more interesting qualities of most old people is their accounts of their past experiences. SA A AS DS D SD
31. If old people expect to be liked, their first step is to try to get rid of their irritating faults. SA A AS DS D SD
32. It is evident that most old people are very different from one another. SA A AS DS D SD
33. Most old people are irritable, grouchy, and unpleasant. SA A AS DS D SD
34. Most old people need no more love and reassurance than anyone else. SA A AS DS D SD

Appendix C. General Information Questionnaire

QUESTIONNAIRE

Social Security Number: _____ 123 _____

For the following questions, please check the appropriate responses.
We thank you for your participation.

4. What is your sex?
1. Female
2. Male
5. What is your age?
1. Below 35
2. 35 - 39
3. 40 - 44
4. 45 - 49
5. 50 - 54
6. 55 - 59
7. 60 - 64
8. 65 - 69
9. Over 70
6. What is your marital status?
1. Never married
2. Married
3. Widowed
4. Divorced
5. Separated
7. What is your highest level of education?
1. Less than 4th grade
2. 5th to 8th grade
3. 9th to 11th grade
4. High school diploma
5. Some college
6. Bachelor's Degree
7. Master's Degree
8. Doctoral Degree
9. Other _____
8. What is your race?
1. Black
2. White
3. American Indian
4. Other
9. What is your religion?
1. Baptist
2. Methodist
3. Presbyterian
4. Other Protestant
5. Catholic
6. Jewish
7. Other _____
8. None

10. What is your present level of yearly family income?

- ___ 1. Below \$1,000
 ___ 2. \$1,000 - \$2,999
 ___ 3. \$3,000 - \$5,999
 ___ 4. \$6,000 - \$8,999
 ___ 5. \$9,000 - \$11,999
 ___ 6. \$12,000 - \$14,999
 ___ 7. \$15,000 - \$19,999
 ___ 8. \$20,000 - \$34,999
 ___ 9. Over \$35,000

11. What is your present occupation or are you retired?

12. If you are retired, what was your occupation before retirement?

13. How many brothers and sisters do you have?

- ___ 1. Only child
 ___ 2. One
 ___ 3. Two
 ___ 4. Three
 ___ 5. Four
 ___ 6. Five
 ___ 7. Six
 ___ 8. Seven
 ___ 9. Eight or more

14. Were you born:

- ___ 1. First
 ___ 2. Second
 ___ 3. Third
 ___ 4. Fourth
 ___ 5. Fifth
 ___ 6. Sixth
 ___ 7. Seventh
 ___ 8. Eighth
 ___ 9. Later than eighth

15. Are your parents still living?

Mother

- ___ 1. Yes ___ 2. No

Father

- ___ 1. Yes ___ 2. No

16. Are your parents retired?

Mother

- ___ 1. Yes ___ 2. No

Father

- ___ 1. Yes ___ 2. No

17. How would you rate your parents' adjustment to retirement?

- ___ 1. Successful
 ___ 2. Moderately successful
 ___ 3. Fair
 ___ 4. Poor

18. What are your parents' living arrangement?
- 1. In their own home or apartment
 - 2. In your home
 - 3. In the home of another relative or friend
 - 4. In a retirement community
 - 5. In a nursing home or a rest home
 - 6. Other _____
19. Do you have an older adult other than your parents presently living in your home?
- 1. Yes
 - 2. No
20. Did an older adult other than your parents live in your home during your childhood or adolescence?
- 1. Yes
 - 2. No
21. Are your parents financially dependent on you?
- 1. Yes
 - 2. Partially
 - 3. No
22. How would you rate your parents' health?
- 1. Excellent
 - 2. Good
 - 3. Fair
 - 4. Poor

Appendix D. Correlation Matrix Table

Appendix Table 1. Correlation Coefficients of Tests

Tests	Pre	Post	F Post	Diff	F Diff	PIL
Pre	1.0000 (0.0000)	0.6779 (0.00001)*	0.7277 (0.0001)*	-0.3517 (0.0001)*	0.0670 (0.5326)	0.1888 (0.0161)*
Post		1.0000 (0.0000)	0.8140 (0.0001)*	0.4498 (0.0001)*	-0.1939 (0.0686)*	0.0939 (0.2345)
F Post			1.0000 (0.0000)	0.1571 (0.1416)	0.4119 (0.0001)*	0.2585 (0.0145)*
Diff				1.0000 (0.0000)	-0.3651 (0.0004)*	-0.1098 (0.1644)
F Diff					1.0000 (0.0000)	0.0778 (0.4688)
PIL						1.0000 (0.0000)

Note: Numbers in parentheses are indexes of probability of the result.

*Significant at .10 level.

Appendix E. Supplementary Materials for Use
with the Workshop Series

SUPPLEMENTARY MATERIALS FOR USE WITH THE LESSON SERIES

"FACTS AND FICTION ABOUT AGING"

<u>Film</u>	<u>Available from</u>	<u>Price</u>
"Aging" 16mm film 22 min., color	CRM McGraw Hill Films 110 Fifteenth Street Del Mar, California 92014	\$305 (purchase) \$ 36 (rental)
	N. C. Department of Human Resources Division of Health Services Film Library P. O. Box 2091 Raleigh, N. C. 27602 (919) 733-3471	Free rental
	Audio Visual Services The Pennsylvania State University Special Services Building University Park, Pennsylvania 16802 (814) 865-6314	\$ 14 (rental)
<u>Filmstrips and Cassettes</u>		
"How Would You Like to Be Old?" Available as 2 filmstrips and 2 - 12" LPs or 2 filmstrips and 2 cassettes	Guidance Associates 757 Third Avenue New York, New York 10017	\$ 79.50 (purchase)
<u>Slide-Tape Set</u>		
"Age Related Sensory Losses: An Empathic Approach"	University of Michigan Institute of Gerontology Attention: Publications 520 East Liberty Street Ann Arbor, Michigan 48109	\$ 50 (purchase)
<u>Recordings</u>		
"Eleanor Rigby" Album: Revolver/The Beatles	Capitol Records, Inc. Hollywood and Vine Streets Hollywood, California	\$ 6.99 (purchase)
"Bookends Theme Song" Album: Bookends/Simon and Garfunkel	Columbia Records CBS, Inc. 51 W. 52nd Street New York, New York	\$ 6.99 (purchase)

(Recordings continued)	<u>Available from</u>	<u>Price</u>
"Grandma's Hands" Bill Withers Single 45 RPM SUX 227	Sussex Records, Inc. 6430 Sunset Blvd. Hollywood, California 90028 Distributed by: Buddah Records 1650 Broadway New York, New York 10019	
"When I'm Sixty-Four" Album: Sgt. Pepper's Lonely Hearts Club Band/The Beatles	Capitol Records, Inc. Hollywood and Vine Streets Hollywood, California	\$ 6.99 (purchase)
"Hello in There" Taken from the film- strip-cassette set: "How Would You Like to Be Old?" or Album: The Best of Prine/John Prine	Atlantic Records	\$ 6.99 (purchase)

Cassettes

"Caring as a Way to the Self" and "Aging-- Young and Old Getting Together," Readings taken from the book: <u>Aging, The Fulfill- ment of Life</u> , H. J. M. Nouwen and W. G. Gaffney (1976, pp. 101-103)	Doubleday and Company Garden City, New York 11530	\$ 2.45 (purchase)
---	--	--------------------

Eyeglass frames

Old eyeglass frames are available
from local optometrists