An experimental study of the effects of classroom instruction and clinical learning experiences on the attitudes of students of nursing toward the aged

Elizabeth Barfield Hinchliffe

College of William & Mary - School of Education

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AN EXPERIMENTAL STUDY OF THE EFFECTS OF CLASSROOM INSTRUCTION AND CLINICAL LEARNING EXPERIENCES ON THE ATTITUDES OF STUDENTS OF NURSING TOWARDS THE AGED

The College of William and Mary in Virginia

ED.D.

1979

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A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

by
Elizabeth Barfield Hinchliffe

December, 1979
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Approved December 1979 by

Clifton F. Conrad, Ph.D.
Ruth K. Mulliken, Ph.D.
Donald J. Herrmann, Ph.D.
Chairman of Doctoral Committee
DEDICATION

To my mother, Pauline Hollowan Barfield.
--- She encouraged me in the beginning and all along the way.
ACKNOWLEDGEMENTS

I wish to express my appreciation to the Faculty of the School of Education of the College of William and Mary for their guidance and help in completing the requirements for the doctoral program in higher educational administration.

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CHAPTER I

INTRODUCTION

The steady increase in the number of old persons in this country and the concomitant rise in the demand for more and better health services for the aged have given rise to a problem related to the provision of adequate health and nursing care for the aged. This is primarily an educational problem with two principal components. The first of these concerns the acquisition of knowledge by health professionals concerning the process of aging and the special health needs of the aged; the second concerns attitudes held by health professionals regarding the aged.

Statement of the Problem

The purpose of this research was to determine if attitudes of undergraduate nursing students toward the aged and preferences for working with the aged could be positively effected by classroom instruction in gerontological nursing and/or clinical experiences with two groups of aged individuals: the well aged in a senior citizens center and the chronically ill aged in a nursing home. The effects of these three educational experiences were measured independently and the effects of classroom instruction
and clinical experiences with the well aged and classroom instruction and clinical experiences with the chronically ill aged were measured in combination to identify the relationships between these variables and effective strategies for influencing change in the attitudes of nursing students towards the aged.

**Need for the Study**

It has often been said that this is a youth-oriented society in which there is a tendency to develop negative or prejudicial attitudes towards aging and the aged. Empirical research has generally supported the view that age prejudice does exist. Kogan and Shelton, for example, using a sentence completion procedure, found that a sample of undergraduates gave a pattern of responses "... sufficiently similar to the ethnic prejudice case to warrant discussion in a minority-group context."¹

Kastenbaum and Durkee investigated the attitudes of six groups of adolescents and adults, including a group of graduate nurses, by the Age Appropriate Attitude Technique. Young people had the predicted negative appraisal of old people. In terms of "accepting the old person on his own terms" only 2.2% of their combined samples were "favorably disposed" toward the elderly. An additional 47.13% seemed to have "good will" toward the elderly but wished to "impose rather stringent conditions for their

acceptance as full-fledged members of society."²

Gruetter³ in a study of attitudes of professors of adult education (N = 150) toward three adult age groups, 18-35, 36-54 and 55 and over, found that the 55 and over age group was viewed as the least personally acceptable of the three groups. Moreover, age and years of experience in adult education did not significantly affect the respondents' attitudes.

McTavish, in a comprehensive review of research methodologies and findings related to both societal and individual attitudes toward the aged, concluded: "The most pervasive view to be found in the literature is that prejudice exists...."⁴

It cannot be assumed that health professionals are immune to this generalized cultural bias. They may, in fact, be particularly susceptible to certain kinds of prejudices associated with repeated contact with ill, relatively dependent old people. Rosen- cranz and McNevin, for example, in a study of undergraduate students found that contact with older persons, whether positive or negative, "affects the valence of evaluative attributions," and that those students who had experienced contact in a hospital

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setting gave the most negative evaluations. Kosberg and Gorman and Kosberg and Harris found negativistic attitudes and stereotypic thinking about the aged among professionals and ancillary personnel in nursing homes and other institutional settings. Moreover, the literature supports the contention that these negative attitudes are common to all groups or categories of professional health workers who share responsibility for providing health services for the aged. For example, the findings of Coe and Brehm and Miller and Lowenstein support the contention that the negative attitudes held by the general public are shared by physicians as well as members of other health professions. The findings obviously give rise to concerns about the effects of these negative attitudes on the ability of these groups of health professionals to meet the needs of the aged.


Coe, Mutschler, and Spence et al. have suggested that attitudes held by health service personnel may affect the quantitative and qualitative services rendered older persons. A review of the literature indicates that this is true for nursing personnel, at least in relation to willingness to work with the older patient. Work preference studies have consistently found that nurses generally prefer to avoid working with the aged.

The findings of a three-year United States Public Health Service project indicated that nursing personnel preferred working with young rather than old people and younger patients rather than older patients. For the 800 nursing personnel tested in this study, the concept of aged persons carried connotations of dependency, inactivity and isolation.

A study by Campbell of 3 levels of nurses found that registered nurses were less accepting of stereotypes regarding old persons.
people than licensed practical nurses and aides but, paradoxically, less willing to work with them. All categories of nurses accepted negative stereotypes concerning the elderly, and all groups of nurses least preferred to work with the elderly. Moreover, among nursing personnel in her sample, neither salary increase or shift preference increased willingness to work with elderly patients.\textsuperscript{15}

In a study conducted by DeLora and Moses\textsuperscript{16} to determine the preference of undergraduate nursing students for practice in various specialty areas in nursing, the most positive interest was expressed for obstetric and pediatric areas, the least positive for geriatrics. Children and young adults were rated as the most desirable patients and the elderly as the least desirable. Moreover, the adjectives used to describe geriatric nursing were most negative as indicated by choice of words such as depressing, dull and slow.

Seivwright\textsuperscript{17} found that students attached little importance and desirability to giving care to the chronically ill. Similarly, Kayser's\textsuperscript{18} study of baccalaureate nursing students

\textsuperscript{15}Ibid.
\textsuperscript{16}J.R. DeLora and D.V. Moses "Specialty Preferences and Characteristics of Nursing Students in Baccalaureate Programs," Nursing Research, XVIII, No. 2 (1969), 137-144.
(N = 311) found that students had minimal interest in working with
the aged or in a nursing home as compared with six other fields of
specialization.

Nurse manpower studies confirm that a strikingly small num-
ber of graduate nurses plan to or actually enter the geriatric
field. For example, Kropf19 found that only .4 percent to .6 per-
cent of seniors in all types of nursing education programs, inclu-
ding preparation at the associate degree level (N = 6,893), anti-
cipated employment in a nursing home setting after graduation. A
follow-up career-pattern study of these nurses found that 14 (1.3%)
associate degree graduates, 26 (.8%) diploma graduates and 5 (.3%)
baccalaureate graduates were employed in nursing homes one year
after graduation. Five years later, 27 (3.3%) associate graduates,
95 (4.3%) diploma graduates and 19 (1.9%) baccalaureate graduates
were employed in the nursing home setting.20

Of the more than 775,000 registered nurses employed in nur-
sing, approximately 61,000 or 7.9% are employed in the geriatric
area of clinical practice and 54,000 or 7% in nursing homes.21

19Lucille Kropf, From Student to R.N. A Report of the
Nurse-Career Pattern Study, Department of Health Education and
Welfare, Publication No. NIH 72-830, (Washington: United States

20Lucille Kropf, RN's Five Years After Graduation, (New

21American Nurses Association, Facts About Nursing,
1976-77 (Kansas City, Missouri, 1977).
Overall, the data supports the contention that there is a shortage of nurses entering the field of gerontological nursing, particularly in light of the health care needs of the aged population in the United States. There are now approximately 22.4 million persons in the United States 65 years of age or older and the aged population is increasing more rapidly than the population as a whole. Moreover, this older population is expected to increase to 31 million (11.7%) by the year 2000. More than five out of six persons in this age group have at least one chronic health problem. Of those with a chronic condition, one out of five has some associated limitation in activity. Surveys indicate that the aged have more admissions to the hospital and stay for longer periods of time than younger persons.

The aged spend about three times as much per capita for health care as is spent by young adults and they are prime users of out-patient as well as in-patient facilities such as nursing homes. Consequently, the needs for comprehensive health services,

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including nursing care for the aged, is greater than numbers imply.

Assuming that attitudes held by health professions influence interactions with the aged and that age prejudices do exist, attitudes toward the aged are of prime importance in the education of nurses and other health professionals to meet the multiple needs of this population. Therefore, this research has practical implications for the recruitment and retention of nurses and other health professions into the field of gerontology.

As will be shown in the review of the literature, effective methods for influencing changes in professional students' attitudes towards the aged and preference for working with the aged have not been clearly defined in the literature. This study investigated the effects of classroom instruction and two types of clinical learning experiences in order to identify the interrelated effects of these variables and to provide guidelines for developing strategies to improve education in this field of practice.

Since this study was concerned with developing and testing learning experiences to influence attitude change, this research was based on theories of attitude formation and change. The following discussion provides an overview of the underlying theoretical constructs used.

**Theoretical Frame of Reference**

An examination of contemporary theories and related research revealed a variety of theoretical concepts relevant to research in attitude change. However, no one theory has been accepted as a general theory of attitude formation and change. Instead, a num-
ber of complementary and/or competing theories have evolved to explain these complex processes under different conditions. Since a number of these theoretical constructs seemed relevant to the proposed study, an eclectic approach was taken in developing a theoretical base for this research. This approach was used first to delineate a broad theoretical frame of reference, integrating a number of theoretical constructs into a phenomological concept of attitudes and attitude change; secondly, to generate a set of research hypotheses; and thirdly, following a review of the literature, to develop criteria for selecting content and methodology for the classroom instruction and clinical experiences incorporated in this study.

In scoe has pointed out that a number of specific theories of attitude change may be categorized by one or both of two emphases: the importance of reward, reinforcement or need reduction and the importance of consistency. Attempts have been made to integrate or reconcile these two theoretical perspectives by subsuming one under the other, and an argument can be made from either point of view. Consistency may be seen as a reinforcing agent (reward) or reinforcement as "a type of inconsistency reduction in which homeostatic imbalance is restored."27

This investigator has elected to consider these issues within


27Ibid., pp. 347-348.
the larger theoretical framework of phenomenal field or phenomenalological theory. Snygg has postulated "the fundamental human need . . . (is) the preservation of the organization and integrity of the (phenomenal) field and especially that part of the field which is the phenomenal self." The phenomenal field may be defined as the entire universe, including himself, as it is experienced by the individual at the instant of action and the "phenomenal self as those portions of the phenomenal field experienced as part of or characteristic of himself." A further division of the phenomenal self is the self concept which "includes those parts of the phenomenal field which the individual has differentiated as definite and fairly stable characteristics of himself."

Snygg and Combs proposed a model consisting of three circles: the outermost circle or rim represented the phenomenal environment; the second, the phenomenal self; the innermost circle or core, the self concept. The inner circle is that part of the phenomenal universe that is most cherished and carefully guarded by the outer fortifications. This conceptualization provides in-


sight into a number of difficulties commonly encountered by researchers in the area of attitude change.

For example, the phenomenon of attitude change has frequently been observed in experimental or laboratory research but rarely in field research. These differences have often been ascribed to methodological differences and other environmental factors, but Cohen has suggested a more fundamental reason for the findings:

Experiments generally study a set of factors or conditions which are expected on the basis of theory to influence attitudes. Toward this end, experimenters try to find issues involving attitudes susceptible to modification through persuasive communications. Otherwise, there are likely to be no measurable effects, especially since the experiments are on a small scale. Surveys typically deal with socially significant attitudes which are more deeply rooted and to which people are more highly committed.33

Cohen implied that the divergent findings between field and laboratory research are associated with the degree of "commitment" experienced (by the subjects) relative to the attitudes or issues under investigation. Moreover he indicated, at least indirectly, that this factor may disrupt "lawful" relationships that might ordinarily occur in the investigation of theoretical constructs in the field situation.34 It seems reasonable to assume that attitudes experienced as part of the individual's self concept or phenomenal self would be change resistant under most conditions. One might also assume that attitude change would be facilitated if

34Ibid., p. 131.
change is perceived as enhancing the phenomenal self or as promoting self actualization.

The issue of personal commitment, ego-involvement, maintenance of self esteem or enhancement of the phenomenal self has, in some fashion, been incorporated into a number of attitude theories. Whether or not this issue was conceptualized in phenomenological terms, as preferred by the author, it is of demonstrable importance to attitude theory and research. As early as 1947, Sherif and Cantril analyzed the relationship between attitudes and the individual's self definition or ego. They noted that attitudes which were incorporated as part of the ego were highly resistant to change and, interestingly, described an ego-involved attitude as a social value with which the individual strongly identifies and incorporates as part of himself.35

The importance of ego-involvement in determining latitude of acceptance or rejection of attitude change later played a major role in Sherif and Hovland's assimilation-contrast version of social judgment theory.36 According to this theory, susceptibility to attitudinal change depends on the closeness of discrepant information to an attitude anchor. An attitude anchor was defined in terms of latitude of acceptance and latitude of rejection. Latitude of


acceptance referred to all the acceptable positions on an attitude continuum; latitude of rejection to the band of unacceptable points or positions. According to this theory, discrepant positions near the individual's most acceptable position will be judged as closer to his own view than they actually are (assimilation) while positions far from the individual's own attitude fall within the latitude of rejection and are judged farther away from his position than they actually are (contrast). Between the latitudes of acceptance and rejection, lies a latitude of noncommitment in which neither assimilation nor contrast occurs.

Assimilation purportedly facilitates attitude change, while contrast mediates against change, or else produces a boomerang effect. When ego-involvement is increased the latitude of rejection is widened. It was originally hypothesized that the latitude of acceptance would become narrower with increased ego-involvement but this was not shown to occur consistently, and it later appeared that latitude of acceptance was approximately the same for all levels of involvement. However, within the latitudes of acceptance and rejection the tendency to assimilate or contrast is exaggerated by high involvement and will be more resistant to change than attitudes with low ego-involvement. It further predicts that an increasing discrepancy between an individual's own attitude and a persuasive message will result in a decreasing incidence of

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attitude change since the persuasive message was more likely to come within the latitude of rejection.

Cognitive dissonance theory as developed by Festinger, and elaborated and revised by Brehm and Cohen, Aronson and others, differs in prediction of attitude change under the above conditions. Dissonance theory focuses on consistency and is concerned with cognitive relationships and the effects of psychological inconsistencies between cognitive elements. According to dissonant theorists, an increasing discrepancy between an individual's own attitude and a persuasive message will result in an increasing incidence of attitude change if attitude change is the only means of reducing cognitive dissonance.

It has been observed that recent revisions of the cognitive dissonance theory omit some of Festinger's original data and hypotheses. "Further, the psychological character of the motivation for cognitive change can be interpreted, in recent statements of the theory, as a need to preserve self-esteem rather than a need to maintain a logic-like consistency among cognitions. These changes are so substantial as to prompt the observation that the

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evolved theory might be identified as a different theory."\textsuperscript{41}

The self perception theory of attitude change formulated by Bem\textsuperscript{42} as an alternative explanation to cognitive dissonance phenomena may be viewed as a phenomenological construct. According to Bem "individuals come to 'know' their own attitudes, traits, emotions and other internal states partially by inferring them from their overt behavior or the circumstances in which this behavior occurs."\textsuperscript{43}

Fazio, Zanna and Cooper\textsuperscript{44} reviewed the literature related to the controversy between dissonance and self perception theory and concluded that the two should not be viewed as competing formulations but as complementary ones and that each theory was applicable only in a specialized domain. They noted that alone "neither theory can explain all the data."\textsuperscript{45}

In a field setting involving multiple and uncontrollable stimuli, it appears that general phenomenology theory is a more

\begin{flushright}


\textsuperscript{43}Ibid, p. 2.


\textsuperscript{45}Ibid, p. 478.
\end{flushright}
useful frame of reference for structuring research with potential application to the educational problem under investigation. The phenomenal concepts of affective investments in the phenomenal self, learning as a "greater differentiation of the phenomenal field"\(^46\) and the phenomenal self as a prime activator of behavior have numerous implications for teaching and learning. Field theory places emphasis on learning as a process of discovering and understanding relationships, and of organizing and finding meaning in perceptual experiences.

These concepts provided the basis for the teaching-learning experiences incorporated in this study. Classroom instruction in this study included a diversity of learning activities focusing on positive perceptions of aging and gerontological nursing practice. It was anticipated that participation in these classroom experiences would give students an opportunity to acquire an increased sensitivity to the health problems and needs of the aged and to perceive ways in which they can enhance their self perceptions as persons and as professional nurses through interactions with old people.

Clinical experiences with the aged included in this study provided opportunities for students to interact with older people and, thus, alter their phenomenological perceptions through direct experiences. Clinical experiences with the well aged were expected

to present positive perceptions of active and independent aged persons who had, generally, been able to adjust to the aging process and their changing life situations. In contrast, clinical experiences with the chronically ill aged were expected to present negative perceptions of dependent aged persons who had, generally, been unsuccessful in adjusting to the process of aging, illness and/or their life situations.

It was expected that positive classroom experiences combined with clinical experiences with the well aged would provide the most consistent and effective phenomenal learning experience and that clinical experiences would bring about greater changes in the students' perceptual fields than classroom experiences, since clinical experiences primarily consist of direct experiential learning activities. However, it was expected that a combination of classroom instruction and clinical experiences with the ill aged could result in positive attitude change since these students would bring different cognitive and affective perceptions to the clinical setting due to the classroom learning experiences.

**Definition of Terms**

The following definitions were adopted for purposes of this study:

1. **attitude**—"a learned, emotionally toned predisposition to react in a consistent way, favorably or unfavorably, towards a person, object or idea."^{47}

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2. gerontological nursing—those activities concerned with the direct and indirect care of both the well and unwell aged.

3. the aged—persons 65 years of age and older.

4. phenomenal field—"the entire universe, including himself, as it is experienced by the individual at the instant of action."  

5. phenomenal self—"those parts of the phenomenal field experienced by the individual as part of or characteristic of himself."  

6. ego involvement—degree of identification with the phenomenal self, a concomitant of priority ordering and of the differential arousalment of defensive behavior.

7. classroom instruction—structured learning experiences incorporating a variety of teaching methodologies and strategies, including lectures, discussions, simulations and the use of audio-visuals, but not incorporating interactions with aged individuals.

8. clinical learning experiences—field experiences in a health or social service agency incorporating interactions with aged individuals and the provision of nursing services.

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48Snygg and Combs, op. cit., p. 58.

49Ibid., p. 129.
Assumptions

The following primary assumptions formed the basis of this research:

1. Students of nursing hold attitudes towards the aged.
2. These attitudes have quantitative and qualitative effects on gerontological nursing practice.
3. These attitudes can be measured.
4. These attitudes may be subject to change through educational experiences.

Secondary assumptions derived from the preceding theoretical frame of reference are as follows:

1. The attitude under investigation is encompassed within the "phenomenal self" and is characterized by a high degree of "ego-involvement."
2. Attitude change is a manifestation of the self enhancement activities of the phenomenal self.
3. Attitude change will occur only as change is perceived as enhancing the phenomenal self.
4. Since positive attitudes towards the aged are consistent with the values of professional nursing they fall within the latitude of acceptance for professional nursing students.
5. Contingent on these perceptions, the magnitude and direction of attitudinal change is a function of perceived dissonance.
Limitations

Major limitations which should be considered in evaluating the results of this study include the following:

1. Sample: The sample was small and was limited to students enrolled in one nursing program.

2. Treatments: It was not possible to measure the combined treatment effects of clinical experiences with both the ill aged and the well aged or the effects of subsequent clinical and/or classroom experiences on the attitudes of students.

3. Settings: Clinical experiences incorporated in this study were provided in one nursing home and in one comprehensive senior citizens service center and its satellite neighborhood senior citizens centers. The specific characteristics of these settings could exert an independent influence on the outcome of this research. Therefore, an effort was made to select sites that were typical of these two types of facilities. In addition, the clinical experiences were structured to ensure, to the extent that this is possible, that the experiences provided all students were comparable within each setting. Clinical experiences provided in the senior citizens satellite centers included experiences in low and middle income neighborhoods and with ethnically diverse groups.

4. Long Term Treatment Effects: It was not possible to
measure the long term effects of the treatments in the context of this study. Plans have been made to re-test at a one year interval.

5. Behavioral Outcomes: This research did not measure the direct behavioral effects of attitude change on the quantity and quality of interactions with the aged. Plans have been made to do a post graduate follow up of subjects in this study, to determine if differences occur in career patterns.

**Research Hypotheses**

Research hypotheses derived from the foregoing theoretical framework are as follows:

- \( H_1 \) Classroom instruction in gerontological nursing will result in a positive change in nursing students' attitudes towards the aged.

- \( H_2 \) Clinical learning experiences with the well aged will result in a positive change in nursing students' attitudes towards the aged.

- \( H_3 \) Clinical learning experiences with the chronically ill aged will result in a negative change in nursing students' attitudes towards the aged.

- \( H_4 \) A combination of classroom instruction and clinical learning experiences with the well aged will result in a positive change in nursing students' attitudes towards the aged.

- \( H_5 \) A combination of classroom instruction and clinical
Learning experiences with the chronically ill aged will result in a positive change in nursing students' attitudes towards the aged.

$H_0$: Change in nursing students' attitudes towards the aged will be associated with changes in preferences for working with the aged.

Statistical hypotheses are presented in Chapter III. These hypotheses are operationally defined in relation to specific outcome measurements.
CHAPTER II

REVIEW OF THE LITERATURE

Research findings concerning the effects of educational experiences on the attitudes of students and professional personnel toward the aged are inconsistent. Earlier studies generally found negligible positive effects, occasionally negative effects. For example, Tuckman and Lorge found that 124 graduate students who participated in a fourteen weeks long course in psychology and the adult were not less accepting of stereotypes. "The data suggest that the beliefs, misconceptions and stereotypes about old people and the older worker are reinforced after a course on aging."1

A cross sectional survey conducted at the University of California revealed that freshman and senior medical students shared most of the general conceptions and misconceptions about the aged. In this study both groups "adhered to a set of medical stereotypes surprisingly unmodified by the much-vaulted medical

1 Jacob Tuckman and Irving Lorge, "The Influence of Changed Directions on Stereotypes about Aging; Before and After Instructions," Education and Psychological Measurement, XIV (1954), 129.
socialization process,"\(^2\) a long term educational experience.

Troll and Schlossberg administered an Age Norms Inquiry, adapted from Neugarten, Moore and Lowe's study of age norms, to six groups of respondents: Merrill-Palmer students (apprentices in the helping professions), college counselors, adult basic education counselors and vocational rehabilitation counselors. No group was found to be free from bias and special courses in counseling were unrelated to amount of "age bias."\(^3\)

Similar results were seen in a controlled study conducted by Fletcher, et al. in which a multiple choice questionnaire was used to measure "subtle changes in attitudes." The data showed that groups of first year medical students taking a social medical course which focused on the elderly and a similar course which did not focus on the elderly did not differ in characteristics thought to be variables potentially affecting attitudes toward the aged.\(^4\)

Gunter used the Tuckman-Lorge Index to measure acceptance of stereotypes regarding the aged by a sample of 162 senior nursing students before and after a course on normal development in later life. Subjects held a considerable number of stereotypes,


but accepted fewer at the end of the course. After completion of
the course, however, "... fewer students expressed a strong in-
terest in work with the aged than was the case at the beginning
and more admitted that they would avoid work with aged patients,
and in agencies that serve aged patients exclusively."^5

Kayser and Minnegerode's study of 311 baccalaureate nursing
students confirmed the findings of Gunther. Subjects holding the
most stereotypic attitudes as measured by the Tuckman-Lorge Index
were most willing to work with the aged and preference for working
with younger age groups was unchanged following a two semester
course in human development and aging.6 Other investigators7,8
have found little or no relationship between contact with the
aged and attitudes.

The validity of the instruments used in the studies cited
above is questionable, since none report that reliability or val-
idity had been established. For example, the Tuckman-Lorge Index
has been criticized in relation to a number of methodological

^5Laurie M. Gunter, "Students' Attitudes Toward Geria-
tric Nursing," Nursing Outlook, XIX, No. 7 (July, 1971), 469.

^6Kayser and Minnegerode, op. cit., pp. 24-25.

^7J.T. Drake, "Some Factors Influencing Students' Atti-

^8Jacob Tuckman and Irving Lorge, "Attitudes Towards
Aging of Individuals with Experience with the Aged" Journal of
shortcomings⁹ and Rosencrantz and McNevin¹⁰ have noted that many of its items have been shown to be empirically unfounded.

One can also question the sensitivity of the various instruments to measure attitude change in light of the generally inconclusive or negligible results. The above research findings are also weakened in that none, except the study by Fletcher, et al., had a control group.

More recently, studies have found positive changes in attitudes following courses in gerontology and experiences interacting with the aged. For example, a study of attitudes following a course in aging and involvement in a field experience with the aged was conducted by Hallauer and Gordon.¹¹ In this study, subjects were divided into four groups based upon being in either a child or an adult developmental psychology class, and participation in the visiting program. Students in the child development class who did not engage in visiting were the control group. The other three groups were designed to measure the independent and combined effects of course and field work. The field work consisted of weekly visits to two homes for the aged, and took place

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¹⁰Rosencrantz and McNevin, op. cit., p. 57.

during one semester.

Kagan's attitude toward old people scale was used as the dependent variable. Pre- and post-experience attitudes were measured. The results of difference scores for each of the four groups showed that both the visiting and the course work resulted in more favorable attitudes toward the aged. Weekly evaluations by the students of their visits further substantiated these findings. It was concluded that field work was a useful addition to a course on aging for both the students and the residents who participated.

One doctoral study\textsuperscript{12} concerned with the introduction, preparation and evaluation of a course in gerontology for community college students found a positive change in attitudes of students ($N = 55$) as measured by Kogan's Old People Scale. This course incorporated classroom instruction and field experiences with well older people. Subjects were assigned to experimental and control groups at the time of registration. Every other applicant was told that the class was filled. Since there was no structured (substitute) activity for subjects in the control group, one is left to wonder how the subjects in the control group were contacted to collect the posttest data and to what extent not being allowed to enroll in the course biased the pretest-posttest

responses of subjects in the control group. It is possible, for example, that students perceived that positive answers would influence the instructor to allow them to enroll in the course at either or both testing dates.

A method\textsuperscript{13,14} reported as successful in shaping attitudes of health professionals towards the aged involved health team experiences with the elderly. Over a six month period, eight teams of junior medical, junior nursing and first year graduate social work students were assigned to follow subjects discharged from nursing homes, developing a comprehensive health plan for each patient. Students were randomly assigned to the project and patients were randomly assigned to the treatment; thus, there was a control group of students who did not participate in the project and a control group of patients who were not treated. Participating students showed a significant improvement in attitudes as measured by a Semantic Differential Scale and Kogan's Attitudes Toward Old People Scale.\textsuperscript{15} There was no substitute experience for subjects in the treatment group.


\textsuperscript{14}Margaret W. Linn and Lynn P. Carmichael, "Introducing Preprofessionals to Gerontology," The Gerontologist, (December, 1974), 476-478.

An evaluative study was conducted by Holtzman, Beck and Coggan\textsuperscript{17} to measure changes in medical students attitudes towards the aged following two types of educational experiences: a family practice clerkship comprised primarily of clinical experiences with chronically ill nursing home patients and an elective course in medical humanities designed to develop empathetic perceptions of the aged, consisting of seminars; films, demonstrations and other audio-visual experiences; and visits to a senior citizen center. Both experiences resulted in positive changes in general attitudes as measured by a modified Tuckman and Lorge scale developed by Coe and Brehm.\textsuperscript{17}

Subjects participating in the medical humanities course demonstrated more positive change in attitudes concerning the rehabilitative potential of the aged as measured by the Perception of Rehabilitation Potential Scale developed by Kosberg and Gorman.\textsuperscript{18} Although this study attempted to examine the effects of clinical experiences with the well aged and ill aged, a control group was not used and the two types of education experiences differed not only in methodology but also in duration, education level of


\textsuperscript{17}Rodney M. Cohen and H.P. Brehm, Preventive Health Care for Adults: A Study of Medical Practice (New Haven Ct.: College and University Press, 1972).

students, and methods of selection for participation in the two experiences.

Wilhite and Johnson\(^1\) conducted a study to determine change in stereotypic attitudes towards old people, as measured by the Tuckman-Lorge Questionnaire, during an eight-week introductory nursing course which featured classroom and laboratory components. Eighty nursing students were randomly assigned to ten faculty members for experimental treatment which consisted of nursing home experiences, within-group interaction and instruction. Results showed that students' stereotypic attitudes were decreased during the course and the amount of change was related to faculty attitude toward the aged.

The above study did not measure preferences for interacting with the elderly despite the fact that Kayser and Minnegerode and Gunther, using the same instrument, had previously found that students' stereotypic attitudes decreased while they conversely became less willing to work with the aged. Moreover, the design of the above study did not include a control group or provisions for measuring the independent effects of classroom instruction and clinical experiences.

An experimental study conducted by Heller and Walsh\(^2\) of

\(^1\)Mary J. Wilhite and Dale M. Johnson, "Changes in Nursing Students Stereotypic Attitudes Towards Old People," *Nursing Research*, XXV, No. 6 (November-December, 1976), 430-432.

\(^2\)Barbara R. Heller and Frederick J. Walsh, "Changing Nursing Students Attitudes Towards the Aged: An Experimental Study," *Journal of Nursing Education*, XV: 5 (January, 1976), 9-17.
nursing students (N = 110) following a forty-five hour teaching unit focusing on the problems of older people. Highly significant differences were found in pretest-posttest attitude scores, as measured by the Kogan Old People Scale, for the experimental group but none for the control group. Moreover, their findings showed significant positive changes in pretest-posttest preferences for working with the aged, as measured by the modified Wilensky-Barmack Work Preference Questionnaire, for the experimental group but none for the control group. The above study incorporated varied classroom and laboratory learning experiences - lectures, panel discussions, guest speakers, and interactions with the well aged in a variety of settings. No attempt was made to measure the independent effects of classroom and laboratory experiences.

Summary

The research cited above as reporting positive changes in attitudes following educational experiences demonstrated that educational experiences could result in the development of more positive attitudes towards the aged. It was reported in one study that such experiences could positively influence student's preferences for working with the well aged.

However, no controlled studies were found to describe the independent and combined effects of classroom instruction, clinical

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experiences with the well aged and clinical experiences with the ill aged. Since both the care of the well aged and the ill aged are essential components of gerontological nursing practice, it is of great importance to understand these relationships and to identify educational strategies to strengthen or counteract, if necessary, all these experiences. This research was designed to measure the independent and interrelated effects of these variable on attitudes towards the aging and to determine the effects of attitudes on students' preferences concerning working with the aged.

A problem existed in comparing the results of research in the subject area due to differences in methodologies, sample groups and treatments. Instruments frequently had not been tested for reliability and validity. Common deficiencies included the absence of control groups, the use of a single tool or measurement, and non-random sampling techniques for selection and assignment to treatment groups.

An additional problem existed in the application of the research findings to education. The educational experiences described in the literature were commonly special or elective experiences and usually long term. It would be difficult, if not impossible, to incorporate these types of experiences into the core/required curricula of most undergraduate nursing programs. Therefore, this research was designed to utilize short term learning experiences that could be incorporated into general, required learning experiences with relative ease. It was also designed to explicate the independent and interrelated effects of classroom
instruction, clinical experiences with the well aged and clinical experiences with the chronically ill aged.
CHAPTER III

METHODOLOGY

A combination pretest - posttest and posttest only control group design was used in this experimental study to investigate the effects of classroom instruction and clinical learning experiences on the attitudes of undergraduate nursing students towards the aged.

Population for Study

All generic students enrolled in a 5 credit course "Introduction to Concepts and Theories for Nursing" were included in the study (N=101). This course is the first nursing course in an upper division, National League for Nursing accredited, baccalaureate degree program. Students enroll in the course as second semester sophomores. Prerequisites for enrollment include the successful completion of 40 hours of required general education, social science and natural science courses and admission to the nursing program.

Students are selected for admission to the nursing program in the first semester of the sophomore year. Enrollment is limited to approximately 125 students. This includes generic students with no previous education in nursing and registered nurse graduates of associate degree and diploma programs in nursing. Students are selected for admission on the basis of academic cri-
criteria including: college grade point averages, SAT scores, high school grades and rank in class. Approximately one out of three applicants are admitted to this state university nursing program located in an urban area in the southeast.

Registered nurse students enrolled in the course were not included in the study population since these students had previous clinical experiences working with the aged. Of the 101 generic students enrolled in the course, 6 (5.9%) were males and 95 (94.1%) were females. There were 61 (60.3%) single students, 36 (35.6%) married students, and 4 (3.9%) divorced students. The study population included 87 (86.1%) white students and 14 (13.9%) nonwhite students. Data were not available on the specific socio-economic status of the study population.

Students were asked to give written consent to participate in this research study. They were informed that they were being asked to participate in educational research to determine effective teaching strategies in nursing education, but they were not informed regarding the specific area of research. The subjects were assured that the information collected would be used for research purposes only and that participation in the study was not a course requirement. Subjects were also informed that they were free to withdraw from the study at anytime and that anonymity would be maintained throughout the study. (See consent form, Appendix A.)

Subjects were randomly assigned to treatment and control groups on the basis of a random draw.
Description of Treatments

Five treatment conditions and one control condition were incorporated in this study. Treatments 1, 2, and 3 were designed to provide data on the independent effects of three variables: classroom instruction in gerontological nursing (Treatment 1); clinical experiences with the well aged in a senior citizens center (Treatment 2); and clinical experiences with the chronically ill aged in a nursing home (Treatment 3). Treatments 4 and 5 were designed to test the combined effects of classroom instruction and clinical learning experiences. Treatment 4 consisted of classroom instruction in gerontological nursing \((T_1)\) and clinical learning experiences with the well aged in a senior citizens center \((T_2)\). Treatment 5 consisted of classroom instruction in gerontological nursing \((T_1)\) and clinical experiences with the chronically ill aged in a senior citizens center \((T_3)\).

Classroom Instruction

Treatment 1, classroom instruction in gerontological nursing, consisted of a variety of learning experiences based on a phenomenological approach to teaching and learning. Teaching methods included the use of an audio tape of popular songs related to aging; a film, "Raisin Wine", depicting one individual's positive adaptation to aging; lecture - discussions and student analyses of lecture and media presentations. The classes emphasized positive aspects of aging and adaptation in late life but also included a realistic consideration of negative aspects of aging, particularly as these relate to aging in American society. Content focused on
the normal aging process, myths and stereotypes of aging, persistence of individual life style and applications of concepts and theories to gerontological nursing practice. (See Teaching Plan, Appendix B).

The primary instructor was a registered nurse with a master's degree in gerontological nursing. A one hour lecture-discussion on the myths of aging was conducted by a guest lecturer who is a certified gerontologist. The classes were provided prior to all clinical learning experiences. They were presented in four (total) hours of class time during a two week interval.

These classes represented one component of the lecture portion of the course. Classroom learning experiences were juxtapositioned so that students in the control group and those participating only in clinical experiences with the aged received other course content during the same time period. After the completion of data collections, all students received the classroom instruction previously omitted.

Other components of the course were taught using the same group format to reduce the likelihood that the subjects would perceive the classes on aging as special or unusual learning experiences.

Clinical Experiences with the Well Aged

Treatment 2, clinical experiences with the well aged in a senior citizens center, took place in a regional comprehensive senior citizens service center and in its neighborhood satellite senior service centers. This setting was selected as providing the
typical facilities and services of senior citizens service organizations in urban areas throughout the country. This organization provided facilities and services for a variety of educational and social activities including: discussion groups, excursions, bingo, dancing, bridge and canasta, parties, lectures and short courses. Facilities and services were also provided to assist older people in acquiring arts and crafts skills and in the production and sale of arts and crafts materials including: ceramics, woodworking, jewelry-making and needlework.

Health screening and maintenance activities provided through the comprehensive senior citizens service center and its neighborhood satellite centers included: blood pressure and glaucoma screening clinics, exercise programs, general health counseling and referral and special classes related to the health needs of older people.

The clinical experiences incorporated in this study included experiences in both the comprehensive center and in the neighborhood satellite centers. In addition, the experiences were structured so that students had experiences working in a satellite center located in a low income neighborhood servicing a predominantly nonwhite population and in a satellite center located in a middle income neighborhood servicing a predominantly white population.

Subjects participated in a total of eight hours of clinical experiences over a six week time period. In this eight hour time period students were oriented to the facilities; made observation and interacted with aged individuals; took vital signs; interviewed a
Clinical Experiences with the Chronically Ill Aged

Treatment 3, clinical experiences with the chronically ill aged in a nursing home, also consisted of a total of eight hours of clinical experiences extending over a six week time period. These experiences took place in one 300 bed intermediate care facility. This setting was selected as providing the typical facilities and services of nursing homes providing long-term care for the chronically ill throughout the country. This included both the provision of adequate, but not luxurious, general space and facilities in living, dining, recreational, personal care and rehabilitative areas and per patient space allocations and facilities in bedroom areas. This also included equipment and furnishings that met contemporary standards for safety and utility.

The nursing home selected met the standards established by the Medicaid and Medicare programs for licensure as an intermediate care facility. The patient population in this facility was diverse in terms of medical diagnoses, socio-economic backgrounds and degree of infirmity. However, all patients in this intermediate care facility required nursing assistance to meet their basic human needs.

Subjects participating in clinical experiences with the chronically ill in this setting engaged in the same types of activities as those participating in clinical experiences with the well aged in the senior citizens center. The students were oriented to the facility; made observations and interacted with the ill
aged; took vital signs; interviewed a chronically ill aged person and collected a health history.

**Clinical Experiences in the Control Setting**

Subjects in the control group, and those who only received classroom instruction were given equivalent clinical experiences during the same time period in a family practice clinic servicing a child and young adult population. These experiences were provided in lieu of clinical experiences with the aged.

The clinical experiences incorporated in this study were structured within the 2 hours per week laboratory component of the course. General information and instructions were provided to prepare all students to function in any clinical setting and to carry out the activities described above.

**Instruments**

In this study, three instruments were used to measure attitudes towards the aged: Nathan Kogan's Old People Attitude Scale\(^1\), a modified Wilensky-Barmack Work Preference Questionnaire\(^2\) and a questionnaire designed to unobstrusively obtain a measurement of the subjects' choices for working with the aged in actual clinical situations.

Nathan Kogan's Old People Scale was the major instrument for data collection (Appendix C). The Old People (OP) scale is a Likert-type scale consisting of 17 matched pairs of essentially

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\(^1\)Kogan, op. cit.

\(^2\)Wilensky and Barmack, op. cit.
identical positive and negative items adapted from the prejudice literature and designed to measure attitudes toward the aged with respect to norms and individual differences.\(^3\)

Each item is provided with six response categories: strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. Items are scored 1, 2, 3, 5, 6, 7, respectively, with a score of 4 signifying failure to respond. Subjects check one response category for each item. Contrary to the summated method usually employed in scoring Likert-type attitudinal scales, Kogan used means rather than sums and subtracted the negative means from 8.0 to make the scores comparable.\(^4\) Following this procedure, a high score indicates more favorable attitudes for both scales. Kogan's procedure was followed in this study.

Kogan tested his Old People scale with three groups of students in introductory psychology courses at two universities. Odd-even reliabilities were computed separately for each scale and for the three samples. Corrected reliabilities for the OP negative scale were reported as follows: .73 and .83 for the Northeastern University samples and .76 for the Boston University sample. Corresponding values for the OP positive scale were .66 and .73 for the Northeastern University samples and .77 for the Boston University samples.

\(^3\)Kogan, *op. cit.*, pp. 44-54.

\(^4\)Ibid., p. 47.
sity sample. Kogan compared the above subjects with an older sample in a follow-up study finding reliability ties for the four samples to be of moderate to high magnitude.

In addition to having demonstrated generally satisfactory reliability, the OP scale can claim validity on several counts. Silverman found in a two part study that the Old People scale demonstrated predictive validity in that "the scale was capable of predicting preference for associating with the aged in an actual behavioral situation". This is an obvious advantage, especially since items on stereotype scales may in some cases elicit objective responses based on knowledge and experiences rather than acceptance or rejection of the aged. The scale has been assessed as having reasonably good content validity, and Kogan found significant relationships between OP scale scores and other attitudinal and personality variables, an indication of concurrent validity.

The observed relationships between positive attitudes towards old people as measured by the OP scale and nurturance, and

\[\text{\textsuperscript{5}}\text{Ibid., p. 48.}\]

\[\text{\textsuperscript{6}}\text{Nathan Kogan, "Attitudes Toward Old People in an Older Sample", Journal of Abnormal and Social Psychology, LXII (1961), 618.}\]

\[\text{\textsuperscript{7}}\text{Irwin Silverman, "Response Set Bias and Predictive Validity Associated with Kogan's Attitudes Toward Old People Scale", Journal of Gerontology, XXI, No. 1 (January, 1966), 88.}\]


\[\text{\textsuperscript{9}}\text{Kogan, "Development of a Scale", pp. 49-53.}\]
between negative attitudes and feelings of anomie were judged relevant to education for attitude change. Therefore, the classroom experiences included in this study were, in part, directed toward counteracting perceived associations between aging and anomie. The classroom experiences also included content related to ways in which nurses could appropriately help and nurture the aged.

A modified Wilensky-Barmack Work Preference Questionnaire was used to measure the work preferences of nursing students in the study. The questionnaire asks for information in two areas: preferences for working with individuals by age group and preference for working in various clinical settings or specialty areas in nursing. Subjects were asked to rate their degree of interest for each item on a seven point scale ranging from a most positive position ("my major interest is in this age group or area") to a most negative position ("would avoid this age group or area entirely"). A neutral position is at the midpoint on the seven point scale.

There is no indication on the questionnaire that its purpose is to assess interest in working with the aged or interest in working in an area in which services are primarily directed towards the care of the aged (Appendix C).

The original Wilensky-Barmack Questionnaire was developed and used to measure interests in working with older adults held by doctoral students in clinical psychology. Modified versions of

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10 Wilensky and Barmack, op. cit., pp. 411-413.
the scale have previously been used by Gunther\textsuperscript{11} and by Heller and Walsh\textsuperscript{12} in nursing education research. Tests for reliability and validity have not been reported in the literature. Therefore, the modified work preference scale used in this research was pretested for reliability using the test-retest method. The questionnaire was administered twice, at an interval of two weeks, to a convenience sample of 20 junior and senior nursing students who were not participating in the study. Correlation of the test-retest scores yielded a reliability coefficient of $r = .89$, a generally acceptable value. The instrument has face validity and the results of the Heller and Walsh study indicate, indirectly, that this questionnaire demonstrates a degree of concurrent validity when used in conjunction with other attitude scales.\textsuperscript{13}

An unobtrusive measurement of preferences for interacting with the aged was obtained as part of a routine departmental data collection process. A questionnaire designed to collect information on travel arrangements and distances from the students' homes to a variety of clinical agencies used in the junior year is normally distributed to students near the end of the sophomore year. Items were added to this questionnaire asking students to select the age groups with whom they would like more experiences and the nursing specialty areas in which they would like to work in the

\textsuperscript{11}Gunther, \textit{op. cit.}

\textsuperscript{12}Heller and Walsh, \textit{op. cit.}

\textsuperscript{13}Heller and Walsh, \textit{op. cit.}, p. 14-15.
junior year. (Appendix C). Students were told that these data would be used in planning actual clinical experiences for the next semester. (These data were in fact used for this purpose to the extent that this was possible). It was anticipated that students' responses to these items would provide data on preferences for interacting with the aged in an actual behavioral situation.

Data Collection

A combination pretest-posttest and posttest only format was used for data collection. The modified Wilensky-Barmack Work Preference Questionnaire was administered to all treatment and control groups simultaneously during the first week of the semester and one week following the last clinical experiences. The rationale for collecting pretest-posttest measurements using this instrument was that it gives no indication of the nature of the specific research problem. Moreover, substitute clinical experiences provided for the control group could effect these students preferences independent of the effects of the treatment conditions. The pretest-posttest data provided more complete data for analyzing these interrelated effects.

The Kogan Old People Scale was administered, as a posttest only, two weeks following the last clinical learning experiences and immediately following the second administration of the Wilensky-Barmack Questionnaire. The rationale for collecting posttest data only with this instrument was that the specific area of research is easily recognizable to the respondent and that its administration as a pretest would have affected the internal validity of this re-
search. Since subjects were randomly assigned to treatment and control groups, it was assumed that the groups were equal initially.

The investigator carried out these data collection procedures. Subjects were assured at the time of each administration that the data would be held confidential and that anonymity would be maintained.

The coordinator of the junior year in the nursing program collected data on choice of age group and specialty area for future clinical experiences from all students, including registered nurses, two weeks after the last clinical experiences. This data collection was incorporated into a traditional orientation session for the upcoming year. Students were told that the data would be used in determining clinical schedules, assignments and/or the amount of time they may spend in specific clinical settings in the junior year. Students' names and social security numbers were included on the forms. Copies of those forms completed by the subjects were given to the investigator after the names had been deleted.

Hypotheses

This research was designed to test the independent and interrelated effects of classroom instruction and two types of clinical learning experiences on the attitudes of students of nursing towards the aged. In addition to the research hypotheses formulated in Chapter I, specific statistical hypotheses were formulated on the basis of the foregoing theoretical framework and the review of the literature. These hypotheses were designed to test anticipated differences between the treatment and control
groups with respect to preferences for interacting with the aged and attitudes towards the aged:

\[ H_1 \] Classroom instruction in gerontological nursing will result in a positive change in preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

\[ H_2 \] Clinical experiences with the well aged will result in a positive change in preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

\[ H_3 \] Clinical experiences with the chronically ill aged will result in a negative change in preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

\[ H_4 \] Combined classroom instruction in gerontological nursing and clinical instruction with the well aged will result in a positive change in preferences for working with the aged as measured by the modified Wilensky-Barmack Questionnaire.

\[ H_5 \] Combined classroom instruction and clinical experiences with the chronically ill aged will result in a positive change in preferences for working with the aged as measured by the Wilensky-Barmack Questionnaire.

\[ H_6 \] Attitudes, as measured by Kogan's Old People Scale, of subjects participating in classroom instruction will be more positive than those of subjects in the control group.

\[ H_7 \] Attitudes, as measured by Kogan's Old People Scale, of subjects participating only in clinical experiences with the well aged will be more positive than those of subjects in the control group.

\[ H_8 \] Attitudes, as measured by Kogan's Old People Scale, of subjects participating in clinical experiences
with the ill aged will be less positive than those of subjects in the control group.

H9 Attitudes, as measured by Kogan's Old People Scale, of subjects participating both in classroom instruction and clinical experiences with the well aged will be more positive than those of subjects in the control group.

H10 Attitudes, as measured by Kogan's Old People Scale, of subjects participating both in classroom instruction and clinical experiences with the ill aged will be more positive than those of subjects in the control group.

H11 Classroom instruction in gerontological nursing will result in a positive change in preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

H12 Clinical experiences with the well aged will result in a positive change in preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

H13 Clinical experiences with the chronically ill aged will result in a negative change in preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

H14 Combined classroom instruction in gerontological nursing and clinical instruction with the well aged will result in a positive change in preferences for working with the aged as measured by the Junior Year Clinical Preference Questionnaire.

H15 Combined classroom instruction and clinical experiences with the chronically ill aged will result in a positive change in preferences for working with the aged as measured by the Junior Year Clinical Preference Questionnaire.
There will be a positive correlation between favorable attitudes toward the aged as measured by Kogan's Old People Scale and preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

There will be a positive correlation between favorable attitudes toward the aged as measured by Kogan's Old People Scale and preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

In brief, it was hypothesized that positive treatment effects would result from classroom instruction; clinical experiences with the well aged; a combination of classroom instruction and clinical experiences with the well aged; and a combination of classroom instruction and clinical experiences with the ill aged; and that clinical experiences with the ill aged alone would result in negative effects.

Statistical Analysis

Descriptive statistics were used to analyze the data collected using the modified Wilensky-Barmack Work Preference Questionnaire and to analyze the frequency data collected on students' choices for clinical experiences in the junior year.

The Student's t-test for independent samples was used to analyze group difference in pretest-posttest change scores for those items on the modified Wilensky-Barmack Questionnaire that ask for specific data or preferences for working with persons 65 years of age and over and preferences for working in settings in which the patient population is primarily elderly.
The chi square technique for more than two samples was used to test hypotheses eleven through fifteen. This method was selected because this questionnaire collects nominal data on preferences for working with discrete age groups and in discrete settings.

The data collected using Kogan's Old People Scale were analyzed using Student's t-test for independent samples. One-tailed t-tests were computed for all possible sets of (two) independent groups in order to test hypotheses six through ten and in order to measure the relative effects of the five treatment conditions.

One way analysis of variance with a priori orthogonal contrasts was also used to analyze the data collected using Kogan's Old People Attitude Inventory. This one way subprogram automatically weighted the coefficients of each contrast and made appropriate adjustments for differences in category frequencies. Orthogonal adjusted contrasts allowed comparisons to be made between group sets although the groups were unequal in numbers due to attrition. The orthogonal set used was as follows (T₀ = control group):

<table>
<thead>
<tr>
<th>T₀</th>
<th>T₁</th>
<th>T₂</th>
<th>T₃</th>
<th>T₄</th>
<th>T₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-4</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>-1</td>
<td>3</td>
<td>-1</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>0</td>
<td>-1</td>
<td>0</td>
<td>-1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>-1</td>
</tr>
</tbody>
</table>

The a priori contrasts method was also used to analyze
mean scores of those items on the modified Wilensky-Barmack Questionnaire that ask for specific data on preferences for working with persons sixty-five and over and for working in a setting in which the patient population is primarily elderly.

The Spearman rank order correlation was used to analyze the relationships between preferences for working with the aged, as measured by the Wilensky-Barmack Questionnaire, and attitudes, as measured by Kogan's Old People Scale, and between students choices for clinical experiences in the junior year and attitude scores, as measured by Kogan's Old People Scale.

Statistical analysis of the data was conducted using SPSS computer programs. The hypotheses were accepted at the .05 level of confidence.

Summary

This experimental study was conducted to determine the effects of classroom instruction and two types of clinical experiences on the attitudes of undergraduate nursing students towards the aged. All students enrolled in an introductory nursing course (N = 101) were randomly assigned to treatment and control groups. Students in treatment groups 1, 4, and 5 received 4 hours of classroom instruction in gerontological nursing using a variety of teaching methodologies. Students in treatment groups 4 and 5 also received 8 hours of clinical experiences either with the well aged (T₄) or the ill aged (T₅). Students in treatment groups

---

2 and 3 participated in clinical experiences with the well aged ($T_2$) or the ill aged ($T_3$) but received no classroom instruction in gerontological nursing.

Students in the control group ($T_0$) and those not receiving classroom instruction were given other course content simultaneously. Students in the control group received clinical experiences with a young population in lieu of clinical experiences with the aged.

Three instruments were used to measure attitudes towards the aged. Data was collected using a combination pretest-posttest and posttest only research design. One instrument designed to test preferences for working with a variety of age groups in a variety of settings, the modified Wilensky-Barmack Work Preference Questionnaire, was administered prior to and following classroom and clinical experiences as follows:

| Group 1 | R | M → $T_1$ → M |
| Group 2 | R | M → $T_2$ → M |
| Group 3 | R | M → $T_3$ → M |
| Group 4 | R | M → $T_4(T_1T_2)$ → M |
| Group 5 | R | M → $T_5(T_1T_3)$ → M |
| Group 6 | R | M → M |

All other data was collected using a posttest only control group design. Kogan’s Old People Scale was administered and an unobtrusive measurement of attitudes toward the aged, student’s choices for clinical experiences in their next clinical course, were obtained as follows:
Hypotheses were tested to identify the expected effects of five treatment conditions: classroom instruction; clinical experiences with the well aged; clinical experiences with the chronically ill aged; a combination of classroom instruction and clinical experiences with the well aged; and a combination of classroom instruction and clinical experiences with the ill aged. The data were analyzed and the hypotheses tested using the t-tests for independent groups, chi square, analysis of variance (a priori orthogonal contrasts) and Spearman rank order correlation procedures.
CHAPTER IV
RESULTS

Of the 101 students in the study population, complete data were collected and analyzed for 95 subjects. Data analysis was conducted for 15 subjects in treatment group 1 ($T_1$); 17 subjects in treatment group 2 ($T_2$); 15 subjects in treatment group 3 ($T_3$); 16 subjects in treatment group 4 ($T_4$); 15 subjects in treatment group 5 ($T_5$) and for 17 subjects in the control group ($T_0$). One student in $T_3$ and one student in $T_5$ withdrew from the course prior to completion of the study. Two students in $T_1$ failed to complete the prescribed classes in gerontological nursing. One subject in $T_5$ failed to complete the posttest questionnaires.

The computer programs used in data analysis adjusted for group differences in numbers of cases. However, the attrition factor reduced the likelihood that group differences would be observed.

Work Preferences of Students Prior to Learning Experiences

An analysis of the pretest data collected using the modified Wilensky-Barmack Work Preference Questionnaire revealed that subjects in all groups least preferred working with aged patients. The mean preference ratings for the pretest showed that the nursing students in this study preferred infants as patients (0-1
year), with preschool children (2-4 years), school age children (5-12 years), adolescents (13-18 years), young adults (19-24 years), mature adults (25-44 years), middle aged adults and aged adults following in that order.

Prior to participating in the learning experiences incorporated in this study 22.1% of the subjects showed a major or strong interest in working with the aged, while 13.7% indicated they preferred to avoid or would avoid entirely working with this age group (Table 1). The pretest data showed no significant differences between the six treatment and control groups in relation to this variable (F = .213; d.f. = 74; NS).

The mean preference ratings and ranks for 12 types of work settings are presented in Table 2. The four settings which received the highest preference ratings were children's hospital, maternity hospital, emergency room and general hospital in that order. The nursing home setting received the lowest ratings followed by school nurse, armed forces, and institution for the mentally retarded.

Only 11.6% of the students in this study expressed a major or strong interest in working in a nursing home setting, while 35.7% indicated that they preferred to avoid or would avoid entirely working in the nursing home setting (Table 3). Analysis of the pretest data showed no significant differences between the six treatment and control groups. (F = 1.467; d.f. = 94; NS).

The pretest findings supported the contention that nur-
TABLE 1.

PREFERENCE FOR WORKING WITH PERSONS
65 YEARS OF AGE AND OVER PRIOR TO LEARNING EXPERIENCES AS MEASURED BY THE WILENSKY-BARMACK QUESTIONNAIRE.

<table>
<thead>
<tr>
<th>Level of Interest</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would Avoid Entirely</td>
<td>7</td>
<td>7.4</td>
</tr>
<tr>
<td>Prefer to Avoid</td>
<td>6</td>
<td>6.3</td>
</tr>
<tr>
<td>Mild Negative Attitude</td>
<td>27</td>
<td>28.4</td>
</tr>
<tr>
<td>Neutral</td>
<td>17</td>
<td>17.9</td>
</tr>
<tr>
<td>Mild Interest</td>
<td>17</td>
<td>17.9</td>
</tr>
<tr>
<td>Strong Interest</td>
<td>19</td>
<td>20.0</td>
</tr>
<tr>
<td>Major Interest</td>
<td>2</td>
<td>2.1</td>
</tr>
</tbody>
</table>

N = 95
TABLE 2.

PREFERENCE FOR WORK SETTINGS PRIOR TO LEARNING EXPERIENCES: PRETEST MEAN RATING AND RANK FOR WILENSKY-BARMACK QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Work Setting</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Hospital</td>
<td>4.11</td>
<td>4</td>
</tr>
<tr>
<td>Emergency Room</td>
<td>4.15</td>
<td>3</td>
</tr>
<tr>
<td>Psychiatric Hospital</td>
<td>2.96</td>
<td>8</td>
</tr>
<tr>
<td>Maternity Hospital</td>
<td>4.34</td>
<td>2</td>
</tr>
<tr>
<td>Public Health</td>
<td>3.51</td>
<td>5</td>
</tr>
<tr>
<td>School Nurse</td>
<td>2.40</td>
<td>11</td>
</tr>
<tr>
<td>Institution for the Mentally Retarded</td>
<td>2.92</td>
<td>9</td>
</tr>
<tr>
<td>Children's Hospital</td>
<td>4.48</td>
<td>1</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>2.27</td>
<td>12</td>
</tr>
<tr>
<td>Rehabilitation Center</td>
<td>3.27</td>
<td>6</td>
</tr>
<tr>
<td>Community Center</td>
<td>3.23</td>
<td>7</td>
</tr>
<tr>
<td>Armed Forces</td>
<td>2.45</td>
<td>10</td>
</tr>
</tbody>
</table>

N = 95
### TABLE 3.

**PREFERENCE FOR WORKING IN INSTITUTIONS FOR THE AGED PRIOR TO LEARNING EXPERIENCES AS MEASURED BY THE WILENSKY-BARMACK QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>Level of Interest</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would Avoid Entirely</td>
<td>16</td>
<td>16.8</td>
</tr>
<tr>
<td>Prefer to Avoid</td>
<td>18</td>
<td>18.9</td>
</tr>
<tr>
<td>Mild Negative Attitude</td>
<td>19</td>
<td>20.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>20</td>
<td>21.1</td>
</tr>
<tr>
<td>Mild Interest</td>
<td>11</td>
<td>11.6</td>
</tr>
<tr>
<td>Strong Interest</td>
<td>10</td>
<td>10.5</td>
</tr>
<tr>
<td>Major Interest</td>
<td>1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

**N = 95**
sing students generally prefer to avoid working with the aged and the identified need for educational research in this problem area. The findings were consistent with those of Brown,\(^1\) Campbell,\(^2\) DeLora and Moses,\(^3\) Seivwright\(^4\) and Kayser and Minnegerode\(^5\) cited in Chapter I.

It was noteworthy that preferences for working with persons 65 years of age and over were more favorable than those for working in an institution in which the patients were primarily chronically ill. These findings suggested that perceptions regarding the nursing home setting may constitute a greater education problem than perceptions concerning the aged in general.

Preferences for Working With the Aged Following Learning Experiences

One way analysis of variance of data collected using the modified Wilensky-Barmack Questionnaire revealed that there were significant differences between and within groups following experimental treatment with respect to preferences for working with persons 65 years of age and over \((F = 3.798; \text{d.f.} = 94; p < .003)\) and preferences for working in institutions for the aged \((F = 2.315; \text{d.f.} = 94; p = .050)\). Paired two tailed t-tests showed no significant pretest-posttest differences for subjects in the

\(^1\)Brown, op. cit.
\(^2\)Campbell, op. cit.
\(^3\)DeLora and Moses, op. cit.
\(^4\)Seivwright, op. cit.
\(^5\)Kayser and Minnegerode, op. cit.
control group.

One way analysis of variance of the mean scores of post-test data collected using the Kogan's Old People Scale revealed significant variations between and within groups ($F = 7.763; d.f. = 94; p. = .000$) following experimental treatment.

**Hypothesis 1.** Classroom instruction in gerontological nursing will result in a positive change in preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

The results of the one tailed $t$-test for independent groups revealed that the mean pretest-posttest change score for treatment group 1 was significantly more favorable than for the control group with respect to preference for working with persons 65 years of age and over. (See Table 4). With respect to preferences for working in an institution for the aged, the mean pretest-posttest change score for treatment group 1 was not significantly different (to three decimal places) from that of the control group. However, there was a definite trend in the predicted direction. (Table 5).

In as much as there was significant positive change in one aspect of preference for interacting with the aged (as measured by the modified Wilensky-Barmack Questionnaire) and a demonstrated trend towards a positive change on a second measurement of preference for working with the aged, the hypothesis was accepted.

**Hypothesis 2.** Clinical experiences with the well aged will result in a positive change in preferences for inter-
TABLE 4.
CHANGE IN PREFERENCES FOR WORKING WITH PERSONS
65 YEARS OF AGE AND OVER: MEAN CHANGE AND t-TEST
VALUES FOR THE WILENSKY-BARMACK QUESTIONNAIRE BY GROUP

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>N</th>
<th>Mean Change Score</th>
<th>t Value</th>
<th>d.f.</th>
<th>One-Tail Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>1.333</td>
<td>3.02</td>
<td>30</td>
<td>p = &lt;.003</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>1.000</td>
<td>2.04</td>
<td>32</td>
<td>p = &lt;.025</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>1.666</td>
<td>5.02</td>
<td>30</td>
<td>p = &lt;.000</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>1.250</td>
<td>2.23</td>
<td>31</td>
<td>p = &lt;.017</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>1.133</td>
<td>2.09</td>
<td>30</td>
<td>p = &lt;.022</td>
</tr>
</tbody>
</table>

Control Group N = 19; Mean Change Score = .470
### Table 5.

**Change in Preferences for Working in Nursing Home Setting: Mean Change Scores and t-Test Values for the Wilensky-Barmack Questionnaire by Group**

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Number</th>
<th>Mean Change Score</th>
<th>t Value</th>
<th>d.f.</th>
<th>One-tail Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>1.667</td>
<td>1.69</td>
<td>30</td>
<td>( p &lt; .051 ) NS</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>.941</td>
<td>.20</td>
<td>32</td>
<td>( p &lt; .421 ) NS</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>1.666</td>
<td>1.90</td>
<td>30</td>
<td>( p &lt; .033 ) SIG</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>1.625</td>
<td>1.67</td>
<td>31</td>
<td>( p &lt; .052 ) NS</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>1.0667</td>
<td>.17</td>
<td>30</td>
<td>( p &lt; .431 ) NS</td>
</tr>
</tbody>
</table>

Control Group - \( N = 17 \); Mean Change Score - 1.000
acting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

The results of the one tailed t-test for independent groups revealed that the mean pretest-posttest change score for treatment group 2 was significantly more favorable than that of the control group with respect to preferences for working with persons 65 years of age and over. (Table 4). The mean posttest preferences for working in institutions for the aged were more favorable for subjects in treatment group 2 than for those in the control group. However, the results of the one tailed t-test revealed that the mean change scores for subjects in the treatment and control groups were not significantly different. (Table 5).

Since there was a significant positive change on one measurement of preferences for interacting with the aged, as measured by the modified Wilensky-Barmack Questionnaire, and since there was a non-significant tendency for subjects in treatment group 2 to express more favorable preferences for interacting with the aged on a second measurement, the hypothesis was accepted.

Hypothesis 3.: Clinical experiences with the chronically ill aged will result in a negative change in preferences for interacting with the aged as measured by the modified Wilensky-Barmack Questionnaire.

The results of the one tailed t-test for independent groups revealed that the mean pretest-posttest change score for treatment group 3 was significantly less favorable than for the control group in relation to working with persons 65 years of age and over. (Table 4). With respect to working in institu-
tions for the aged, the mean pretest-posttest change score for treatment group 3 was shown to be significantly different from that of the control group. (Table 5).

Since there was a significant negative change on both measurements of preferences for interacting with the aged for the modified Wilensky-Barmack Questionnaire, the hypothesis was accepted.

Hypothesis 4.: Combined classroom instruction in gerontological nursing and clinical instruction with the well aged will result in a positive change in preferences for working with the aged as measured by the modified Wilensky-Barmack Questionnaire.

The results of the one tailed t-test for independent groups revealed that the mean pretest-posttest change score for treatment group 4 was significantly more favorable than for the control group with respect to preferences for working with persons 65 years of age and over. (Table 4). With respect to preferences for working in an institution for the aged the mean pretest-posttest change score for treatment group 1 was not significantly different (to three decimal places) from that of the control group. However, a definite trend was observed in the predicted direction. (Table 5).

Since there was a significant positive change in one aspect of preference for interacting with the aged, as measured by the modified Wilensky-Barmack Questionnaire, and a demonstrated trend towards a positive change on a second measurement of preference for working with the aged, the hypothesis was accepted.
Hypothesis 5.: Combined classroom instruction and clinical experiences with the chronically ill aged will result in a positive change in preferences for working with the aged as measured by the Wilensky-Barmack Questionnaire.

The results of the one tailed t-test for independent groups revealed that the mean pretest-posttest change score for treatment group 5 was significantly more favorable than for the control group with respect to preferences for working with persons 65 years of age and over. (Table 4). With respect to preferences for working in an institution for the aged, the mean pretest-posttest change score for treatment group 1 was not significantly different from that of the control group. However, a definite trend was observed in the predicted direction. (Table 5).

Since there was a significant positive change in one aspect of preference for interacting with the aged, as measured by the modified Wilensky-Barmack Questionnaire, and a demonstrated trend towards a positive change on a second measurement of preference for working with the aged, the hypothesis was accepted.

Hypothesis 6.: Attitudes, as measured by Kogan's Old People Scale, of subjects participating in classroom instruction will be more positive than those of subjects in the control group.

Attitudes towards the aged, as measured by Kogan's Old People Scale for subjects in treatment group 1 varied from the control group in the predicted direction. However, the results of the one tailed t-test revealed no significant differences in mean attitude scores between students in treatment group 1 and
the control group. (See Table 6).

The hypothesis was rejected.

Hypothesis 7.: Attitudes, as measured by Kogan's Old People Scale, of subjects participating only in clinical experiences with the well aged will be more positive than those of subjects in the control group.

Attitudes towards the aged as measured by Kogan's Old People Scale for subjects in treatment group 1 varied from the control group in the opposite direction from that which was predicted. However, the results of the t-test revealed no significant differences in mean attitude scores between subjects in treatment group 2 and the control group. (Table 6).

The hypothesis was rejected.

Hypothesis 8.: Attitudes, as measured by Kogan's Old People Scale, of subjects participating in clinical experiences with the ill aged will be less positive than those of subjects in the control group.

The mean attitude scores as measured by Kogan's Old People Scale, of subjects in treatment group 3 were more negative than those of subjects in the control group. The results of the one tailed t-test for independent groups showed a highly significant difference between the scores of subjects in treatment group 3 and subjects in the control group. (Table 6).

The hypothesis was accepted.

Hypothesis 9.: Attitudes, as measured by Kogan's Old People Scale, of subjects participating both in classroom instruction and clinical experiences with the well aged will be more positive than those of subjects in
TABLE 6.
ATTITUDES TOWARDS OLD PEOPLE AS MEASURED BY THE OLD PEOPLE SCALE: MEANS AND t-TEST VALUES FOR DIFFERENCES BETWEEN EXPERIMENTAL GROUPS AND CONTROL GROUP

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Number</th>
<th>Mean</th>
<th>t Value</th>
<th>d.f.</th>
<th>One-Tail Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>5.596</td>
<td>.04</td>
<td>30</td>
<td>p = &lt; .482 NS</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>5.529</td>
<td>.38</td>
<td>32</td>
<td>p = &lt; .708* NS</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>4.978</td>
<td>3.60</td>
<td>30</td>
<td>p = &lt; .000 SIG</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>5.99</td>
<td>2.70</td>
<td>31</td>
<td>p = &lt; .005 SIG</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>5.76</td>
<td>1.15</td>
<td>30</td>
<td>p = &lt; .129 NS</td>
</tr>
</tbody>
</table>

Control Group - N = 17; Mean = 5.58
*Two-tail t-test
the control group.

The mean attitude scores, as measured by Kogan's Old People Scale, of subjects in treatment group 4 were more positive than those of subjects in the control group. The results of the one tailed t-test for independent groups showed a highly significant difference between the scores of subjects in treatment group 4 and subjects in the control group. (Table 6).

The hypothesis was accepted.

Hypothesis 10.: Attitudes, as measured by Kogan's Old People Scale, of subjects participating both in classroom instruction and clinical experiences with the ill aged will be more positive than those of subjects in the control group.

Attitudes towards the aged, as measured by Kogan's Old People Scale for subjects in treatment group 5 varied from the control group in the predicted direction. However, the results of the one tailed t-test revealed no significant differences in the control group. (Table 6).

The hypothesis was rejected.

Hypothesis 11.: Classroom instruction in gerontological nursing will result in a positive change in preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

Hypothesis 12.: Clinical experiences with the well aged will result in a positive change in preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

Hypothesis 13.: Clinical experiences with the chronically ill aged will result in a negative change in preferences
for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

**Hypothesis 14.** Combined classroom instruction in gerontological nursing and clinical instruction with the well aged will result in a positive change in preferences for working with the aged as measured by the Junior Year Clinical Preference Questionnaire.

**Hypothesis 15.** Combined classroom instruction and clinical experiences with the chronically ill aged will result in a positive change in preferences for working with the aged as measured by the Junior Year Clinical Preference Questionnaire.

Descriptive analysis of the posttest data collected with the Junior Year Clinical Choice Questionnaire revealed that when students were asked to select specialty areas in nursing in which to have actual clinical experiences and age groups with which they desired to have further interactions, they overwhelmingly favored specialty areas other than gerontological nursing and younger age groups.

Nominal data collected using the Junior Year Clinical Preference Questionnaire are presented in Tables 7 and 8. Chi square analysis of the data revealed no significant differences between treatment and control groups in relation to any specialty area or age group.

Therefore, hypotheses eleven through fifteen were rejected.

**Hypothesis 16.** There will be a positive correlation between favorable attitudes toward the aged as measured by Kogan's Old People Scale and preferences for interacting with the aged as measured by the modi-
### TABLE 7.
CHOICES FOR CLINICAL EXPERIENCES IN SPECIALTY AREAS FOR JUNIOR YEAR CLINICAL PREFERENCE QUESTIONNAIRE: FREQUENCY, PERCENTAGE, AND RANK FOR SELECTIONS; CHI SQUARE VALUES FOR GROUP DIFFERENCES

<table>
<thead>
<tr>
<th>Specialty Area</th>
<th>Number</th>
<th>Percent</th>
<th>Rank</th>
<th>Chi Square Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Nursing</td>
<td>43</td>
<td>45.3</td>
<td>5</td>
<td>6.48</td>
<td>p &lt; .261 NS</td>
</tr>
<tr>
<td>Surgical Nursing</td>
<td>45</td>
<td>47.4</td>
<td>4</td>
<td>4.07</td>
<td>p &lt; .538 NS</td>
</tr>
<tr>
<td>Obstetrical Nursing</td>
<td>53</td>
<td>55.8</td>
<td>2</td>
<td>7.39</td>
<td>p &lt; .192 NS</td>
</tr>
<tr>
<td>Community Health Nursing</td>
<td>46</td>
<td>48.4</td>
<td>3</td>
<td>7.28</td>
<td>p &lt; .200 NS</td>
</tr>
<tr>
<td>Pediatric Nursing</td>
<td>62</td>
<td>65.3</td>
<td>1</td>
<td>7.14</td>
<td>p &lt; .210 NS</td>
</tr>
<tr>
<td>Gerontological Nursing</td>
<td>10</td>
<td>10.5</td>
<td>7</td>
<td>1.94</td>
<td>p &lt; .856 NS</td>
</tr>
<tr>
<td>Psychiatric Nursing</td>
<td>30</td>
<td>31.6</td>
<td>6</td>
<td>2.130</td>
<td>p &lt; .830 NS</td>
</tr>
</tbody>
</table>

N = 95; Groups = 6; d.f. = 5
### TABLE 8.

CHOICES FOR CLINICAL EXPERIENCES BY AGE GROUPS FOR THE JUNIOR YEAR CLINICAL PREFERENCE QUESTIONNAIRE: FREQUENCY, PERCENTAGE, AND RANK FOR SELECTIONS; CHI SQUARE VALUES FOR GROUP DIFFERENCES

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number</th>
<th>Percent</th>
<th>Rank</th>
<th>Chi Square Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>64</td>
<td>67.4</td>
<td>1</td>
<td>2.130</td>
<td>p &lt; .830 NS</td>
</tr>
<tr>
<td>Teenagers</td>
<td>24</td>
<td>25.3</td>
<td>3</td>
<td>5.392</td>
<td>p &lt; .369 NS</td>
</tr>
<tr>
<td>Young Adults</td>
<td>33</td>
<td>34.7</td>
<td>2</td>
<td>8.262</td>
<td>p &lt; .142 NS</td>
</tr>
<tr>
<td>Middle Aged</td>
<td>14</td>
<td>14.7</td>
<td>4</td>
<td>2.985</td>
<td>p &lt; .702 NS</td>
</tr>
<tr>
<td>Aged</td>
<td>11</td>
<td>11.6</td>
<td>5</td>
<td>8.9710</td>
<td>p &lt; .110 NS</td>
</tr>
</tbody>
</table>

N = 95; Groups = 6; d.f. = 5
fied Wilensky-Barmack Questionnaire.

The mean posttest score for preference for working with persons 65 years of age and over as measured by the Wilensky-Barmack Questionnaire and the overall mean score for Kogan's Old People Scale were analyzed using the Spearman Correlation Coefficient procedure. The analysis revealed a significant positive correlation ($r = .2901; N = 95; p < .002$). Analysis of the mean posttest score for preference for working in institutions in which the patient population was primarily elderly and the overall mean score for the Old People Scale also revealed a significant positive correlation. ($r = .1817; N = 95; p < .002$). As anticipated, correlation of pretest scores for the Wilensky-Barmack Questionnaire and posttest scores for the Old People Scale resulted in no significant findings.

The hypothesis was accepted.

Hypothesis 17: There will be a positive correlation between favorable attitudes toward the aged, as measured by Kogan's Old People Scale, and preferences for interacting with the aged as measured by the Junior Year Clinical Preference Questionnaire.

Statistical analysis using the Spearman correlation coefficient procedure showed no significant relationships between the frequency data collected on student's choices for clinical experiences in the junior year and mean scores on Kogan's Old People Scale.

The hypothesis was rejected.
Other Findings

The results of independent t-tests in which the mean scores of subjects in treatment group 3 were compared with the other four treatment groups demonstrated that attitudes of students receiving (only) clinical experiences with the chronically ill aged were significantly more negative than for all other groups.

The results of independent t-tests in which the mean Old People attitude scores of subjects in treatment group 4 were compared with the scores of subjects in all other treatment groups demonstrated that the attitudes of subjects receiving both classroom instruction and clinical experiences with the aged were significantly more positive than for all other groups.

It was particularly noteworthy that students in T4 demonstrated more favorable attitudes than their counterparts in T1, who received only classroom instruction, and T2, who only received clinical experiences with the well aged. (See Table 9).

When group 4 was contrasted with a cluster of the other four treatment groups, using the a priori orthogonal contrasts procedure, the results were highly significant, validating the relative effectiveness of this treatment modality. \( t = -3.942; \) d.f. = 89; \( p < .000 \)

While the attitudes of subjects who received treatment 5, a combination of classroom instruction and clinical experiences with the chronically ill, did not differ significantly from the attitudes of subjects in the control group, it was shown that they did not experience the negative effects associated with clinical
TABLE 9.

GROUP COMPARISONS OF TREATMENT GROUPS 1 AND 2 WITH TREATMENT GROUP 4: t-TEST
VALUES FOR THE OLD PEOPLE SCALE

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>St. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>JT (T₁ + T₂)</td>
<td>16</td>
<td>5.996</td>
<td>.364</td>
<td>.091</td>
</tr>
<tr>
<td>JT (T₁)</td>
<td>15</td>
<td>5.596</td>
<td>.720</td>
<td>.186</td>
</tr>
</tbody>
</table>

\[ t = 1.97; \text{d.f.} 29; p < .029 \]  
(one-tail)

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>St. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>JT (T₁ + T₂)</td>
<td>16</td>
<td>5.996</td>
<td>.364</td>
<td>.091</td>
</tr>
<tr>
<td>JT (T₂)</td>
<td>17</td>
<td>5.5294</td>
<td>.381</td>
<td>.092</td>
</tr>
</tbody>
</table>

\[ t = 3.59; \text{d.f.} 31; p < .000 \]  
(one-tail)
experiences with the chronically ill.

When the attitudes of subjects in T₅ were contrasted with those of students in group 3, using the a priori orthogonal contrasts procedure, the findings were highly significant, validating the relative effectiveness of a combination of classroom instruction and clinical experiences with the chronically ill aged as compared to clinical experiences with the ill aged alone. \( t = 4.514; \) d.f. = 89; \( p = \lt .000 \)

Further evidence for the relative effectiveness of T₅, in comparison to T₃, was shown when preferences for working with the aged, as measured by the modified Wilensky-Barmack Questionnaire, were contrasted using the a priori orthogonal contrasts procedure. It was shown that perceptions of subjects in T₅ varied significantly from those of subjects in T₃ on the contrast coefficient matrix in relation to working with persons 65 years of age and over (\( F = 3.033; \) d.f. = 89; \( p = \lt .003 \)) and working in the nursing home setting, \( t = 2.479; \) d.f. = 89; \( p = \lt .015 \).

These findings provided evidence for an "inoculation effect" in which positive classroom instruction in gerontological nursing, provided prior to clinical experiences with the ill aged, served to counteract the negative effects commonly occurring as a result of these experiences.

It was observed that on a seven point scale, mean preferences for working with the aged, as measured by the modified Wilensky-Barmack Questionnaire, tended to be lower or less favorable than attitudes towards the aged as measured by the Old People Scale.
While there were favorable pretest-posttest changes in preferences for interacting with the aged for subjects in four treatment groups, students expressed the least preference for working with persons 65 years of age and over and the nursing home was the least preferred practice setting on the pretest and the posttest. The mean posttest scores for the Old People Scale were uniformly positive, in that the mean for each group was higher than 4, the neutral point on the seven point scale.

The observed positive correlations for the two instruments supported the idea of a gap between expressed attitudes and expressed behavioral preferences. Since there were no significant group differences with respect to choices for clinical experiences in the junior year and since measurements for the Junior Year Clinical Preference Questionnaire were not correlated with measurements for the other two instruments, the gap between expressed attitudes and behavioral preferences and actual attitudes, preferences and behaviors may be even greater.

Summary

Analysis of the pretest-posttest data collected with the modified Wilensky-Barmack Questionnaire revealed that subjects least preferred to work with persons 65 years of age and older and in the nursing home setting, both before and after participating in this study.

Analysis of the posttest data showed that the work preferences of subjects in T₁, T₂, T₄, and T₅ changed significantly in the predicted positive direction with respect to working with
persons 65 years of age and over. There was a trend towards change in the predicted positive direction for subjects in T1, T2, T4, and T5 with respect to working in the nursing home setting. However, statistical comparison with the control group revealed no significant differences. As hypothesized, there was a negative change in preferences for students in treatment group 3 who only participated in clinical experiences with the chronically ill aged.

Hypotheses 1-5 were tested and accepted, at the .05 level of confidence, based on the results of t-tests for independent groups.

Analysis of posttest data collected with Kogan's Old People Scale revealed a significant positive treatment effect for subjects in T4 who participated in a combination of classroom instruction and clinical learning experiences with the well aged and a significant negative treatment effect for subjects in T3 who participated only in clinical experiences with the chronically ill aged. There were no significant differences between attitudes of subjects in T1, T2, and T5 and the control group. Hypotheses 8 and 9 were accepted and hypotheses 6, 7, and 10 were rejected on the basis of the results of one tail t-tests for independent groups.

Analysis of the frequency data collected using the Junior Year Clinical Preference Questionnaire revealed that there were no differences between the treatment and control groups. Hypotheses 11-15 were rejected at the .05 level of confidence on the
basis of the Chi Square procedure for more than two groups.

It was determined on the basis of Spearman's Correlation Coefficient procedure that a significant positive relationship exists between subjects' preferences for interacting with the aged, as measured by the modified Wilensky-Barmack Questionnaire, and attitudes towards the aged as measured by Kogan's Old People Scale. Hypothesis 16 was accepted at the .05 level of confidence.

It was determined on the basis of the Spearman Correlation Coefficient procedure that there was no significant relationship between choices for clinical experiences in the junior year and attitudes as measured by the Old People Scale. Hypothesis 17 was rejected at the .05 level of confidence.

Comparisons between treatment groups using Student's t-test for independent samples and analysis of variance with a priori orthogonal contrasts revealed that the attitudes of students in T₄, combined classroom instruction and clinical experiences with the well aged, were significantly more positive than for any other treatment group and that attitudes of students in T₃, clinical experiences with the chronically ill aged, were significantly more negative than for any other group. A crucial finding was that an inoculation effect was observed when classroom instruction preceded clinical experiences with the chronically ill aged. While the attitudes of subjects in T₅ did not differ significantly from those of subjects in the control group there were no negative effects as in T₃.
CHAPTER V
SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

The purpose of this experimental study was to determine if attitudes of undergraduate nursing students towards the aged and preferences for working with the aged could be favorably affected by classroom instruction in gerontological nursing and/or clinical learning experiences with two groups of aged individuals: the well aged in a senior citizens center and the chronically ill aged in a nursing home.

The effects of these educational experiences were measured independently and in combination to identify relationships between these three variables and effective methods for influencing change in attitudes of nursing students toward the aged and preferences for gerontological nursing practice.

Evidence was presented to document the existence of a generalized cultural bias towards the aged and the contention that these negative attitudes are shared by nurses and other health professionals. It was demonstrated that work surveys and preference studies have consistently found that nurses and students of nursing prefer working with young people and that these preferences have influenced the quantity and quality of health services and resulted
in severe manpower shortages in this area of nursing practice.

A review of the literature further documented that effective methods for influencing changes in students' attitudes towards the aged have not been clearly identified. Common deficiencies in previous studies included the lack of a control group, use of untested instruments, and non-random sampling techniques. The research findings were inconsistent: sometimes positive, frequently neutral, occasionally negative. Also, no controlled studies were found to describe the independent and combined effects of classroom instruction, classroom experiences with the well aged and clinical experiences with the chronically ill aged.

An additional problem was found to exist in the application of the research findings to nursing education. The educational experiences described in the literature were commonly special or elective and long term. Therefore, this research was designed to test the effects of short term learning experiences that could easily be incorporated into general, required learning experiences.

An eclectic approach was taken in developing the theoretical framework for this study. This approach was used first to integrate a number of theoretical constructs into a broad phenomenological concept of attitude formation and change; secondly, to generate a set of research hypothesis; and finally, to select content and methodology for the educational experiences incorporated in this study.

A combination pretest-posttest and posttest only control
group design was used to measure and compare five treatment effects: classroom instruction in gerontological nursing \((T_1)\); clinical experiences with the well aged \((T_2)\); clinical experiences with the chronically ill aged \((T_3)\); a combination of classroom instruction and clinical experiences with the well aged \((T_4)\); and a combination of classroom instruction and clinical experiences with the ill aged \((T_5)\).

All generic students \((N=101)\) enrolled in an introductory nursing course were randomly assigned to treatment and control groups. Subjects in \(T_1\) received 4 hours of classroom instruction in gerontological nursing, using a phenomenological approach to teaching-learning that included lecture-discussions; an audio-tape of popular songs related to aging; a film, "Raisin Wine"; and student analyses of lecture and media presentations. Content focused on the normal aging process; persistence of individual life style; positive adaptation in aging; and applications of concepts to nursing practice.

Subjects in \(T_2\) received eight hours of clinical experiences with the well aged in a senior citizen's center where they were oriented to the facility, interacted with clients, took vital signs and collected a health history.

Subjects in \(T_3\) received eight hours of clinical experiences with the chronically ill aged in a 300 bed intermediate care nursing home where they engaged in the same type of activities.

Subjects in \(T_4\) received a combination of the clinical instruction in gerontological nursing and clinical experiences with
the well aged \((T_1 + T_2)\).

Subjects in \(T_5\) received a combination of clinical instruction in gerontological nursing and clinical experiences with the chronically ill aged \((T_1 + T_3)\).

Subjects in the control group \((T_0)\) and those in \(T_2\) and \(T_3\) who only participated in clinical experiences with the aged received other instruction in lieu of classroom instruction in gerontological nursing. Students in \(T_0\) and those in \(T_1\), who only participated in classroom instruction in gerontological nursing, received clinical experiences with children and young adults in lieu of clinical experiences with the aged.

Pretest-Posttest data were collected using a modified Wilensky-Barmack Work Preference Questionnaire. Posttest only data were collected using Kogan's Old People Scale and a questionnaire that collected information on students' choices for (actual) clinical experiences in their junior year.

The data were analyzed and the hypotheses tested using descriptive statistics, t-tests for independent groups, chi square and analysis of variance with a priori contrasts techniques. As hypothesized, data analysis showed positive treatment effects in relation to preferences for working with the aged, as measured by the modified Wilensky-Barmack Questionnaire for \(T_1\), \(T_2\) and \(T_4\); and negative treatment effects for \(T_3\).

Analysis of data collected using the Old People Scale revealed significant positive effects, as hypothesized, for \(T_4\); negative effects, as hypothesized, for \(T_3\); no significant effects for
T₃, T₄, and T₅.

Analysis of data collected using the Junior Year Clinical Preference Questionnaire revealed no significant differences in treatment groups.

There was a positive correlation between measurements for the modified Wilensky-Barmack Questionnaire and the Old People Scale. There was no significant relationship between measurements on the Junior Year Clinical Preference Questionnaire and the Old People Scale.

A crucial finding was that an inoculation effect occurred when classroom instruction was provided prior to clinical experiences with the chronically ill aged. While the attitudes of subjects in T₅ did not differ significantly from those in T₀, there were no negative effects as in T₃.

Group comparisons of treatment effects supported the contention that a combination of classroom instruction and clinical instruction is more effective than a single component educational strategy.

Conclusions

Within the context of this research study, data obtained from the study population yielded the following conclusions:

1. The findings of this study substantiate the belief that nursing students share the negative perceptions of old people prevalent in our culture and that these perceptions are reflected in a reluctance to work with the aged.

2. Attitudes of undergraduate students towards the aged may
be favorable affected by short-term educational experiences incorporating classroom instruction in gerontological nursing and clinical experiences with the well aged.

3. Reported preferences for working with the aged may be favorably affected by short-term educational experiences including: classroom instruction in gerontological nursing; clinical experiences with the well aged; a combination of classroom instruction and clinical experiences with the well aged; and a combination of classroom instruction and clinical experiences with the chronically ill aged.

4. Choices of undergraduate nursing students for working with the aged in actual clinical situations are not necessarily influenced by short-term classroom instruction, clinical experiences with the well aged, clinical experiences with the chronically ill aged, or a combination of these experiences.

5. Short-term clinical experiences with the chronically ill aged may result in unfavorable changes in preferences for interacting with the aged and attitudes towards the aged.

6. Classroom instruction in gerontological nursing provided prior to clinical experiences with the chronically ill aged may produce an inoculation effect that will inhibit the negative attitudinal effects associated with these experiences.
Discussion

The results of this investigation demonstrate that attitudes of nursing students towards the aged can be positively affected by short-term educational experiences based on a phenomenological approach to teaching and learning.

Although significant favorable effects were observed only for those students participating in a combination of classroom experiences and clinical experiences with the well aged, it should be noted that significant changes or trends were observed in the hypothesized direction for all treatment groups. These findings suggest that the negligible results observed for students participating only in classroom instruction, only in clinical experiences with the well aged, and in a combination of classroom instruction and clinical experiences with the chronically ill aged might be related to strength of treatment effect.

It was predicted on the basis of phenomenology theory that the strongest treatment effects would result from a combination of classroom instruction and clinical experiences with the well aged. This teaching strategy provided the prerequisite conditions for attitude change prescribed by phenomenology theory outlined in Chapter I. Moreover, positive classroom instruction on aging and the aged was consistent with and served to reinforce perceptions gained through direct experiences with the well aged.

Classroom instruction provided students in this treatment group with opportunities to acquire positive perceptions of aging and the aged and to perceive that interactions with the aged could
serve to enhance one's self image as a person and as a professional nurse --- the phenomenal self. In addition, positive classroom instruction served to reduce the anxiety and fear associated with perceived threats to the phenomenal self and the arousal of ego-defensive behaviors, a factor that could prevent positive attitude change. It is submitted that these conditions served to make students receiving classroom instruction more susceptible to the positive influences of clinical experiences with the well aged and less susceptible to the negative effects of clinical experience with the ill aged.

The findings of this study were consistent with those of Hallauer and Gordon,1 Hudis2 and Heller and Walsh3, since these studies incorporated classroom instruction and clinical experiences with the well aged and they found positive changes in attitudes as measured by Kogan's Old People Scale. Heller and Walsh also found positive changes in work preferences for subjects in their experimental group following a forty-five hour educational program.4

However, the learning experiences incorporated in the studies cited above were long-term in contrast to this study which investigated the effects of short-term learning experiences.

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1 Hallauer and Gordon, op. cit.
3 Heller and Walsh, op. cit., pp. 14-16.
The investigation conducted by Hallauer and Gordon also found significant positive attitudinal effects for subjects receiving classroom instruction alone.\(^5\) Linn and his associated reported significant positive effects for subjects participating in an eight month interdisciplinary project involving clinical practice with the well aged.\(^6\) The data in this study revealed a trend towards more positive attitudes for students receiving classroom instruction alone. These findings suggest that strength of treatment effect may be related to time spent and duration of learning experiences.

The findings of this study served to substantiate, under controlled conditions, the negative effects of clinical experiences with the chronically ill aged on students who have had no classroom instruction in gerontological nursing. Subjects in that treatment group had no basis for perceiving interactions with the aged as enhancing the phenomenal self. They had not been educated concerning the positive aspects of aging, nor had they learned that the care of the chronically ill was an important and potentially rewarding component of professional nursing practice. Therefore, these experiences most likely gave rise to perceptions of threat to the phenomenal self resulting in negative attitude change.

The anxiety that can result when the clinician working with the chronically ill aged "sees in the patient's anguish . . . a

\(^5\)Hallauer and Gordon, op. cit.

forecast of his own future dilemma" has been described by Kastenbaum, and it is this ego-defense behavior that has frequently been cited as the cause of negative attitudes among health professionals. This explanation is consistent with phenomenology theory and the findings of this research.

Three alternative explanations may be offered for the negligible results obtained through the Junior Year Clinical Choice Questionnaire. First, the behavioral component of attitudes may be more difficult to change than the cognitive and affective components. Secondly, the social judgement factor may have been operating and students' responses may have been influenced by their perceptions of socially acceptable values when they were asked to express their work preferences and opinions, but not when they were asked to make actual behavioral choices.

Thirdly, the observed responses may have been a simple reflection of the strong preferences for working with younger age groups expressed by every group on the modified Wilensky-Barmack Questionnaire. In that case, students may have expressed only high priority preferences, and the instrument may not have been sensitive enough to measure subtle differences between groups. It is also quite possible that these factors may have operated in an interrelated fashion to produce the observed effects.

As discussed in Chapter IV, the findings of this study

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confirmed the findings of previous research that students and graduate health professionals least prefer working with the aged. The relative unpopularity of gerontological nursing in comparison to other areas of clinical practice gives rise to questions regarding the effects of attitude change on career patterns. It is possible that students could become significantly more positive in their attitudes towards the aged and towards working with the aged but that this area of practice might still be ranked low in relation to other work situations.

The correlations between positive attitudes towards the aged, as measured by Kogan's Old People Scale, and work preferences, as measured by the modified Wilensky-Barmack Questionnaire, observed in this study were consistent with the findings of Heller and Walsh\(^8\) using the same instruments. However, the findings were not consistent with those of Gunter\(^9\) or Kayser and Minnegerode\(^{10}\) who found a negative correlation between attitudes towards the aged as measured by the Tuckman - Lorge Index and work preferences as measured by modified Wilensky-Barmack Questionnaire.

This instrument was used in many early studies and, as noted in the review of the literature, a major deficiency of the early studies was that none provided data on the reliability and validity of any instrument.

\(^{8}\)Heller and Walsh, op. cit., pp. 430-432.

\(^{9}\)Gunter, op. cit., p. 469.

\(^{10}\)Kayser and Minnegerode, op. cit., pp. 24-25.
Kogan's Old People Scale has been tested successfully for reliability and validity\(^{11, 12, 13}\) but the Tuckman-Lorge Questionnaire has not been tested; moreover, the correlations found in the Heller and Walsh study and in this investigation both demonstrated a measurement of concurrent validity. Therefore, this finding tends to further substantiate the findings of previous research conducted using Kogan's Old People Scale but to cast doubt on the validity of previous research conducted using the Tuckman-Lorge Questionnaire.

**Implications for Nursing Education**

A major finding of this study was that selected short-term learning experiences incorporated in an introductory nursing course may favorably affect preferences for working with the aged and attitudes towards the aged of undergraduate nursing students.

These findings suggest that classroom and clinical experiences in gerontological nursing can be integrated into the curricula of schools of nursing with relative ease. In addition, they offer hope that such learning experiences can attract additional nurses to the field of gerontological nursing. Since it is believed that attitudes towards the aged influence the professional relationship, these educational experiences may also be a means for qualitative as well as quantitative improvements in gerontological care.

\(^{11}\)Kogan, "Development of a Scale," pp. 48-53.

\(^{12}\)Kogan, "Attitudes Towards Old People in an Older Sample," p. 618.

\(^{13}\)Silverman, *op. cit.*, p. 88.
It is recommended that these short-term educational experiences initially include a combination of classroom instruction focusing on positive aspects of aging and clinical experiences with the well aged. Since the data in this study validated the negative effects of clinical experiences with the ill aged for those students who did not receive classroom instruction in gerontological nursing focusing on the positive aspects of aging, it is strongly recommended that classroom instruction in gerontological nursing be provided prior to clinical experiences with the ill aged.

The data indicated that positive classroom instruction in gerontological nursing, presented prior to clinical experiences with the well aged, may produce an "innoculation effect" in that it prevented the negative effects observed when students were not given classroom instruction before exposure to clinical experiences with chronically ill aged. The data further implied that classroom instruction and clinical experiences with the well aged would produce a stronger inoculation effect, but this treatment sequence was not tested in the context of this investigation.

Recommendations for Further Study

Gerontological nursing practice includes both the care of the well and the ill aged, and it is presumed that undergraduate nursing education will normally include experiences with both groups of aged clients. Therefore, it is suggested that consideration be given to an investigation of the sequential effects of
classroom instruction, clinical experiences with the well aged, and clinical experiences with the ill aged on the attitudes and work preferences of students.

In that attitudes toward the aged may be characterized by high ego-involvement and since these attitudes are presumed to be resistant to change and to change slowly over time, it is recommended that attitude change be measured at intervals over a longer time period to ascertain the long term effects of classroom instruction and clinical experiences with the aged.

Since this research did not measure direct behavioral effects on the quality and quantity of interactions with the aged, it is recommended that consideration be given an additional study incorporating observations of interactions with the aged and the collection of behavioral data.
APPENDICES
APPENDIX A

CONSENT FORM

I hereby agree to participate in the study being conducted by Elizabeth Hinchliffe, a faculty member at Old Dominion University.

I understand that no names will be used and that all information will be kept confidential. I also understand that I may withdraw from the study at any time I desire.

Signature: __________________________

Date: __________________________
THEME

Aging was presented as an integral part of the normal developmental process. Content on the stresses and problems of aging was included, but old age was also presented as a consummatory phase of life, a time of stability, contemplation and grace. Continuity of personality and individual life style were highlighted throughout. The fallacies of myths and stereotypes were demonstrated and reinforced in each component of classroom instruction.

PART I

Message: Perceptual and Interpretive

Strategy: Audio Tape - Discussion

Time: 40 minutes

OVERVIEW

An audio tape medley of songs related to various perceptions of aging was played and students were asked to identify themes or images of aging from the tape. Later, students identified these themes and explored perceptions in a discussion led by the instructor. Students were asked to explain perceptions of personal aging and of aging and the aged in general.

Content

A. Songs:

"Old Friends" - Simon and Garfunkle

"Past My Prime" - from Li'l Abner
"Little Old Lady From Pasadena" - The Beach Boys
"Magic Moments" - Choral Group
"September Song" - Nat King Cole
"When I'm 64" - The Beatles
"Try To Remember" - Robert Goulet
"Young At Heart" - Frank Sinatra

B. Themes Associated with Aging:

Loneliness and Isolation
Loss (Love, Physical Beauty, Time)
Nostalgia and Reminiscence
Concepts of Age Appropriate Behaviors
The Value of Remaining Young in Spirit
Uselessness
Fear of Growing Older

PART II

Message: Primarily Informational

Strategy: Lecture - Discussion

Time: 50 minutes

OVERVIEW

Common stereotypes of the aged were presented in conjunction with statistical and research data that refute the validity of stereotyped beliefs concerning old people in general. The lecturer encouraged the class to participate—to ask and answer questions and respond to the material presented. The lecturer used humorous and practical illustrations to emphasize the concepts presented.
Content

A. Myths vs. Facts of Aging:

Homogeneity
Second Childhood
Institutionalization
Withdrawal from Families and/or Neglected
Indecision
Poor Health
Sexless
Unproductive
Tranquil Life Without Problems and Self Satisfaction
Resist Change
Resist Retirement
Solvent
Mental Deterioration
Can't Learn

B. Effects of Myths and Stereotypes:

On oneself.

On persons who are stereotyped.

PART III

Message: Primarily Informational
Strategy: Lecture - Discussion
Time: 75 minutes

OVERVIEW

The basic concepts of a developmental approach to aging were presented and discussed in the context of gerontological
nursing practice. Emphasis was on persistence of life style and ways in which the nurse can help the aged individual compensate for the physical and psychosocial stresses of aging.

Content

A. An Overview of the Aged

B. Health Status of the Aged

C. The Process of Aging--Implications for Nursing Practice

1. Psychological Changes
2. Sociological Changes
3. Physiological Changes
4. Interrelatedness of Changes

D. Life Style

1. Definition and Overview
2. Evidence of Continuity of Life Style
3. Implications for Nursing Practice

   a. Possible Effects of Temporary or Permanent Disruption of Life Style
   b. Maintenance of Life Style: An Important Nursing Function
   c. Assessing Individual Life Style: Nursing Intervention (Discussion)

Positive Aspects of Aging and Life Style Emphasized:

1. Continuity of life style throughout the life cycle
2. Maintenance of life style as an appropriate mode of "nurturance"
3. Adjustments in activity necessitated by changes asso-
cited with the aging process may be harmonious with life style

4. Ability of the aged to adapt and to learn

PART IV

Message: Primarily Perceptual
Strategy: Film: "Raisin Wine"
Time: 15 minutes

OVERVIEW

This film was selected as demonstrating a positive view of aging. It is essentially the verbal, and visual projection of one old person's adaptation to aging, or aging as a personal experience. It demonstrates an integrative, developmental conceptualization of aging. The chief character, Harry Oliver, has led a happy and successful life. He contemplates the past, but he still enjoys the present. He is conscious of having led the life he wished to live and in having made a contribution to society. He is cognitive of the physical limitations imposed by aging, and he is able to accept these and to develop alternate modes for attaining life satisfaction. He has a philosophy to live by and he is still learning; his curiosity and love of life have not dimmed.

The film demonstrated, in particular, the concepts of persistence of life style and personality stability. Harry Oliver has retained a life-long love of nature. He maintains a routine of daily living. He still has "an eye" for members of the opposite sex. While Harry Oliver's pace has slowed, he is still capable of making decisions. In fact, he seems to achieve a nice
balance between independence and dependence. He sees the "slowing down" process as giving him time to think and do the things he most wants to do. He is still very much the individual he was and the individual he will be—one who sees the need to love and be loved, to be needed, and not to be "stereotyped" but to be "himself."

In that Harry Oliver can no longer engage in the strenuous activities of former days, and since he has left his home in the desert to live in a retirement home, some viewers may perceive the film in a negative light. However, it was thought that the presentation of aging in a positive conceptual framework would alter these subjects phenomenal fields to the extent that they, like Harry Oliver, might perceive aging as a positive experience.

PART V

Message: Interpretational

Approach: Discussion - Analysis

Time: 30 minutes

OVERVIEW

Students were encouraged to respond freely to the film and to discuss concepts presented by the instructor. This component of the teaching experience was congruent with phenomenological "learning" in that students were given the opportunity to present and share their perceptions and to express their particular learning needs, directly and indirectly. The instructor posed questions for group consideration and offered guidance as needed.

The following topics were offered for group discussion:

1. Perceptions of Harry Oliver relative to the
aging process and the developmental concepts presented in class

2. Positive aspects of aging demonstrated in film

3. Negative aspects of aging demonstrated in film

4. Harry Oliver's life style

5. Implications for planning nursing care in the event of illness

6. Harry Oliver's feelings about:
   a. love
   b. stereotyping
   c. pretty girls
   d. children

7. The role of reminiscence in old age

SUMMARY

1. Importance of health professionals attitudes towards the aged

2. Aging as an integrative experience, a part of the normal developmental process

3. Application of concepts of aging to nursing practice
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

110-113
WORK PREFERENCE INVENTORY

You will find a number of items below related to your preferences for clinical work experiences in nursing.

Please consider each item carefully and score each item as indicated. Do not skip any item.

THIS INVENTORY IS BEING USED FOR RESEARCH PURPOSES ONLY AND IS COMPLETELY ANONYMOUS.

1. Please rate your preference for working with patients by age groups on a scale of 0 - 6 as follows:

   0 = would avoid entirely
   1 = prefer to avoid
   2 = mild negative attitude
   3 = neutral
   4 = mild interest
   5 = strong interest
   6 = major interest

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rate</th>
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<tbody>
<tr>
<td>1. 0 - 1 year</td>
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<tr>
<td>2. 2 - 4 years</td>
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<tr>
<td>3. 5 - 12 years</td>
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<tr>
<td>4. 13 - 18 years</td>
<td></td>
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<td>5. 19 - 24 years</td>
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<td>6. 25 - 44 years</td>
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<td>7. 45 - 64 years</td>
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<tr>
<td>8. 65 years and over</td>
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</table>
II. Please rate your preference for working in the clinical settings as follows:

0 = would avoid entirely
1 = prefer to avoid
2 = mild negative attitude
3 = neutral
4 = mild interest
5 = strong interest
6 = major interest

<table>
<thead>
<tr>
<th>Work Setting</th>
<th>Rate</th>
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<tbody>
<tr>
<td>1. General Hospital</td>
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<tr>
<td>2. Emergency Room</td>
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<td>3. Psychiatric Hospital</td>
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<td>4. Maternity Hospital</td>
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<td>5. Public Health</td>
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<td>6. School Nurse</td>
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<td>7. Institution for the Mentally Retarded</td>
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<td>8. Children's Hospital</td>
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<td>9. Nursing Home</td>
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<tr>
<td>10. Rehabilitation Center</td>
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<tr>
<td>11. Community Center</td>
<td></td>
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<tr>
<td>12. Armed Forces</td>
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</tbody>
</table>
CLINICAL PREFERENCE QUESTIONNAIRE
JUNIOR YEAR
DEPARTMENT OF NURSING

<table>
<thead>
<tr>
<th>Name</th>
<th>SSN</th>
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</thead>
<tbody>
<tr>
<td>Address</td>
<td>Phone</td>
</tr>
</tbody>
</table>

Which clinical agency is closer to your home (fall semester 1979). Please circle.

1. **Boon Clinic (Va. Beach)** or **Portsmouth Naval Hospital**
2. **Portsmouth Naval Hospital** or **Norfolk General Hospital**
3. **Portsmouth Naval Hospital** or **DePaul**
4. **VA Hospital (Hampton)** or **Medic Home Health Center (Va. Beach)**

5. In which nursing specialty area would you like more experience?
   - medical nursing
   - pediatric nursing
   - surgical nursing
   - gerontological nursing
   - obstetrical nursing
   - psychiatric nursing
   - community health nursing
   - other

6. With which age group(s) of clients would you like more experience?
   - Children
   - Middle Aged
   - Teenagers
   - Aged
   - Young Adults
   - Yes
   - No

7. Do you plan to car pool? Yes No
8. Do you have a car? Yes No
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Miller, Dulcie C. and Lowenstein, R. "Physicians Attitudes Towards the Ill Aged and Nursing Homes." Journal of the American Geriatric Society, XXIV (1976), 498-505.


Wilhite, Mary J. and Johnson, Dale M. "Changes in Nursing Students' Stereotypic Attitudes Towards Old People." Nursing Research, XXV, No. 6 (November-December, 1976), 430-432.
Vita

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Abstract

AN EXPERIMENTAL STUDY OF THE EFFECTS OF CLASSROOM INSTRUCTION AND CLINICAL LEARNING EXPERIENCES ON THE ATTITUDES OF STUDENTS OF NURSING TOWARD THE AGED

Elizabeth B. Hinchliffe, Ed.D.
The College of William and Mary in Virginia
Chairman: Professor Donald J. Herrmann

This study investigated the independent and combined effects of classroom instruction and two variations of clinical learning experiences on the attitudes of nursing students towards the aged.

All generic students (N=101) enrolled in an introductory nursing course were randomly assigned to treatment and control groups. Group 1 (T1) received 4 hours of classroom instruction in gerontological nursing using a phenomenological approach that incorporated lecture-discussions; an audio-tape of popular songs on aging; a film "Raisin-Wine"; and analyses of lecture and media presentations. Content focused on normal aging and positive adaptation and application to nursing practice. Ss. in group 2 (T2) received 8 hours of clinical experiences with the well aged in a senior citizen's center where they interacted with clients, took vital signs and collected a health history. Group 3 (T3) received 8 hours of clinical experiences with the chronically ill aged in a nursing home where they engaged in equivalent activities. Group 4 (T4) received a combination of T1 and T2. Group 5 (T5) received a combination of T1 and T3. Ss. in the control group (T0) received clinical experiences with young people.

Pretest-Posttest data were collected using a modified Wilensky-Barmack Work Preference Questionnaire. Posttest only data were collected using Kogan's Old People (OP) Scale and a questionnaire on students' choices for clinical experiences in the junior year. Data analysis showed positive changes in preferences for working with the aged for T1, T2, T4 and T5 and negative changes for T3. No differences were found in clinical choices for the junior year. Attitudes, as measured by the OP Scale, were favorably affected for Ss. in T4, unfavorably affected for Ss. in T3 and unaffected for Ss. in T1 and T2. A crucial finding was that an inoculation effect occurred when classroom instruction was provided prior to clinical experiences with the ill aged (T5). Attitudes of Ss. in T5 did not differ significantly from those in T0, but there were no negative effects as in T3.

It was concluded that short term learning experiences incorporated in a beginning nursing course may positively affect student's attitudes and preferences for interacting with the aged. It was recommended that classroom instruction and clinical experiences be combined and that students be given classroom instruction prior to experiences with the ill aged.

Further study is needed to evaluate long-term treatment effects and to determine the effects of subsequent learning experiences on the attitudes and work preferences of students.