

CHANGE IN OPINION ABOUT MENTAL ILLNESS ASSOCIATED
WITH PSYCHIATRIC NURSING AFFILIATION

by

Judith Anne Wheeler

A Thesis Submitted to the Faculty of the
COLLEGE OF NURSING
In Partial Fulfillment of the Requirements
For the Degree of
MASTER OF SCIENCE
In the Graduate College
THE UNIVERSITY OF ARIZONA

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SIGNED: Judith A. Wheeler

APPROVAL BY THESIS DIRECTOR

This thesis has been approved on the date shown below:

Gloria M. DiCenso
Gloria M. DiCenso
Assistant Professor of Nursing

July 9, 1976
Date

ACKNOWLEDGMENTS

The author wishes to gratefully acknowledge her committee members who offered their support and assistance in completing this study: Gloria M. DiCenso, Chairperson, Assistant Professor, College of Nursing; Ruth E. Krall, Assistant Professor, College of Nursing; and Alice J. Longman, Associate Professor, College of Nursing.

A note of gratitude is also expressed to the students and faculty members who participated in the study.

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ABSTRACT

The purpose of this research was to determine the nature and extent of attitude change in nursing students during their psychiatric affiliation and to determine if student attitude change was in the direction of the attitudes held by their clinical instructor.

The Opinions about Mental Illness scale (developed by Cohen and Struening) was used to measure attitudes about mental illness of forty-two senior baccalaureate nursing students and six faculty members before and after a course in psychiatric nursing.

The data were analyzed statistically. The findings indicated that students changed significantly on four out of five attitude factors. They decreased significantly on the authoritarianism and social restrictiveness attitude factors and increased significantly on the benevolence and interpersonal etiology factors. There was no significant change noted on the mental hygiene ideology attitude factor. It was also found that student and faculty attitudes did not become more similar during the psychiatric nursing course. This last finding was related to the small n of the faculty group.

The researcher recommended replication of the study with various modifications and additions.

CHAPTER 1

INTRODUCTION

Within the last decade there has been a growing interest among mental health researchers in exploring attitudes about mental illness held by psychiatric personnel. This can be attributed to the fact that these attitudes are increasingly recognized as integral to the effective treatment of psychiatric patients (Stanton and Schwartz, 1954; Cohen and Struening, 1959; Fischer, 1966). Considerable interest has developed in changing attitudes about mental illness and several studies have attempted to detect change in attitudes as a function of hospital in-service training programs or student psychiatric affiliation. A number of these studies have focused on nursing students and have found attitude changes in these students to be a function of their psychiatric affiliation (Altrocchi, 1960; Gelfand and Ullman, 1961a; Johannsen, Redel and Engel, 1964; Kandler and Hyde, 1963; Morris, 1964; and Toomey et al., 1961).

In baccalaureate nursing programs, courses in psychiatric nursing are predicated on the assumption that gains in knowledge and understanding of the mentally ill through didactic and experiential learning will lead to

increased ability to provide therapeutic care. It is assumed that attitude change is a part of this process. Much current educational theory in nursing is concerned with the development of attitudes toward patients and patient care which professional nurses can agree upon as embodying their profession (Brown, 1960). Attitude development is assumed to occur within the student-teacher relationship. However, there has been little investigation of this process.

Researchers have begun to verify the assumption that nursing students demonstrate attitude changes as a function of a course in psychiatric nursing which offers both didactic and experiential learning opportunities (Distefano and Pryer, 1970; Gelfand and Ullman, 1961a; Johannsen et al., 1964; Morris, 1964; and Walsh, 1971). There has been much less research focused on investigation of how this change comes about or on the verification of the assumption that the development of new attitudes is a function of the student-teacher relationship.

The author became quite interested in the subject through her own experiences. As she explored her own attitudes and the manner in which these affect her own work with patients, the evaluation of existing attitudes and the development of new ones seemed increasingly important. As the author moved through this process she was aware of the important role instructors and clinical supervisors played.

Purposes

One purpose of this study was to determine the nature and extent of attitude change in nursing students during their psychiatric affiliation. A second purpose was to determine if student attitude change is in the direction of the attitudes held by their clinical instructor. Findings will be of importance to nursing educators as well as other educators in the mental health field.

Statement of Problem

This study investigated the problems: What is the nature and extent of attitude change in nursing students during their psychiatric nursing course? What is the relationship between students' attitude adoption and the attitudes held by their clinical instructor?

Hypotheses

The hypotheses investigated were: Nursing students' attitudes about mental illness will change during their psychiatric affiliation. Attitude change in nursing students during their psychiatric affiliation will be in the direction of the attitudes held by their clinical instructor.

Definitions

The following definitions of terms were used:

- 1) course in psychiatric nursing and psychiatric affiliation will be used interchangeably and indicate a course

in psychiatric nursing consisting of didactic presentations and supervised experience with psychiatric patients.

- 2) attitude adoption: the adoption of new or different attitudes into one's own set of attitudes; used interchangeably with attitude change and attitude development.

Limitations

This study was limited by the following factors:

- 1) All student and faculty subjects were taken from one baccalaureate nursing program at the University of Arizona.
- 2) There was no way of accounting for the differences in the seven clinical settings where the students did their psychiatric affiliation.

Conceptual Framework

Attitudes represent mind sets which lead to various functional states of readiness formed in relation to persons and social experiences. They are determinants of characteristic and selective modes of behavior in relation to these objects (Allport, 1954). Attitudes are essential because they help to organize thinking and behavior in terms of past experiences so that it is not necessary to attend to every detail of living as a new experience. In a more

specific sense, attitudes held by psychiatric nursing personnel will be the determinants of characteristic and selective modes of behavior by the personnel in relation to the mentally ill they care for. Research has demonstrated that attitudes about mental illness held by psychiatric personnel are important in the effective treatment of the mentally ill (Stanton and Schwartz, 1954; Cohen and Struening, 1959; Allport, 1954). Thus, attitudes and attitude change become important considerations in the treatment of psychiatric patients.

Attitudes are internal factors but are not innate. They are developed through interpersonal experience as related to group values and norms. They are passed from the established senior members to those neophytes who are in the process of becoming members through their education or upbringing. In this way attitudes are learned. Because attitudes are learned they may be influenced or changed under certain conditions. Evidence has shown that changes or shifts in attitudes can occur with changes or shifts in reference groups (Mueller, 1966; Siegel and Siegel, 1957; Dawson and Stagner, 1957; Rhine, 1960). One reference group where learning and attitude changes take place is a group composed of undergraduate nursing students taking a course in psychiatric nursing and the instructors teaching the course. In this reference group nursing instructors are

identified as senior members who pass along their attitudes to those who are in the process of becoming members--the nursing students. Attitude development by the student is assumed to take place within this reference group and particularly within the student-teacher relationship (Brown, 1960).

Various studies have shown a relationship between courses of study and attitude development on the part of the student (Costin and Kerr, 1966; Dixon, 1967; Baker, 1964). Several of these studies have focused on nursing students. They have investigated attitude change in nursing students as a result of courses in psychiatric nursing and have demonstrated that attitude change does take place as a result of the courses (Baker, 1964; Altrocchi, 1960; Gelfand and Ullmann, 1961a; Johannsen et al., 1964; Morris, 1964). There has been little investigation, though, of the process of this attitude change within the students.

Baker (1964) carried out one study which suggested that the direction of attitude development within students is movement from dependence upon faculty attitudes towards independence from faculty attitudes. This lends evidence in support of the assumption that attitude development in the student originally does take place within the educational reference group and within the student-teacher relationship in particular. This study also indicates that the

student moves away from this dependence to a stance of more independent attitude taking. Obviously, one study cannot answer the need for research in this total area. It appears that further exploration of the process of student attitude taking is needed and would be extremely helpful to nursing educators.

In summary, attitudes are determinants of specific behaviors in relation to persons, events, or objects. In a specific sense, the attitudes of psychiatric-mental health professionals toward the mentally ill will determine the professional person's behavior. Attitudes have been shown to be critical factors in the effective treatment of the mentally ill. Attitudes are learned and can be changed (Siegel and Siegel, 1957; Dawson and Stagner, 1957; Rhine, 1960). It has been demonstrated that courses in psychiatric nursing do promote attitude change in nursing students but further research is needed to determine how this change takes place.

Assumptions

The following general assumptions were made:

- 1) Attitudes are learned.
- 2) Attitudes are amenable to change.
- 3) Attitudes influence behavior.

CHAPTER 2

REVIEW OF THE LITERATURE

This review of literature focuses on the effect of attitudes on the treatment of the mentally ill, attitude changes associated with psychiatric affiliation or in-service training, and the relationship between student attitude adoption and the pattern of faculty attitude adoption.

Attitudes: Their Effect on the Treatment of the Mentally Ill

Many researchers have been interested in the attitudes about mental illness held by psychiatric-mental health personnel and how these attitudes affect personnel's care of psychiatric patients. Stanton and Schwartz (1954) have stated that attitudes about mental illness held by psychiatric personnel are extremely important in the effective treatment of psychiatric patients. Fischer (1966) concurred with this idea in her descriptive study which demonstrated the ill effects that attitudes of psychiatric personnel can have on the care of emotionally disturbed children.

Kellam, Durell and Shader (1966) carried out a study of the relationship between the attitudinal climate of a psychiatric ward and the clinical course of patients and

found a direct relationship between the negative attitudes of staff toward mental patients and the degree of severity of the psychological symptoms of these patients. In another study Kellam and Chassen (1962) found that patients on one chronic psychiatric ward became better or worse in clusters. There was a statistically significant relationship between the presence of these clusters and the relative social status of patients involved which the authors believed suggested that the source of the group exacerbations of illness might rest in the nature of staff attitudes and relationships on the ward.

Rickelman (1974), studying staff reactions to psychiatric patients, found that nurses' attitudes greatly affected their responses to mental patients which then influenced the patients' course in treatment. A number of studies suggest that the use of and possibly the therapeutic response to psychopharmacologic agents administered to psychotic patients varies depending on the attitudinal nature of the ward milieu in which the drugs are given (Wing and Brown, 1961; Klerman, 1963; Linn, 1959; Salskin and Ramot, 1956).

All these studies lend support to the often unquestioned assumption that the attitudes about mental illness held by psychiatric personnel do play an important role in the treatment of psychiatric patients.

Attitude Changes Associated with
Psychiatric Affiliation

Since attitudes about mental illness held by psychiatric personnel are believed to be important in the effective treatment of psychiatric patients (Stanton and Schwartz, 1954; Cohen and Struening, 1959; Fischer, 1966), a number of researchers have studied attitudes about mental illness held by psychiatric hospital personnel (Stanton and Schwartz, 1954; Cohen and Struening, 1959; Gilbert and Levinson, 1956). These researchers have attempted to detect changes in attitudes as a function of didactic and/or experiential training in psychiatry.

Altrocchi (1960) found that people, like college and nursing students, who have more information about and more favorable attitudes toward mental illness than the general population, made certain favorable attitude changes as a result of an intensive training period which combined didactic and experiential training. Specifically, using the semantic differential technique, he presented various words or concepts to subjects and asked them to rate these along a number of eight-point scales in order to measure subjects' attitudes about the concepts. Altrocchi found that during their psychiatric affiliation nursing students changed their attitudes toward concepts such as Neurotic Woman, Neurotic Man, Insane Woman, etc. in a favorable direction.

Holtzberg, Knapp and Turner (1966) studied the effects of companionship with the mentally ill on the personalities of college student volunteers and found that these experiences with the mentally ill led to favorable attitude change. More specifically, they found that students developed an expanded system of personal constructs and made gains in emotional catharsis. The authors defined these as favorable attitude changes. In a related study, Kandler and Hyde (1963) demonstrated an increased empathic ability in nursing students during their psychiatric affiliation.

Gelfand and Ullmann (1961b) detected attitude change using the Opinions about Mental Illness (OMI) scale to measure attitudes about mental illness held by medical students and to identify changes in attitudes as a function of their psychiatric clerkship experience. The OMI scale was developed by Cohen and Struening (1962, 1963, 1964, 1965). It is composed of 51 statements about psychiatry and the treatment of mental illness which are to be rated along a six-point scale ranging from strongly agree to strongly disagree. These measure five distinct attitude dimensions. The authors found that there was an increase in agreement with statements described as being typical of mental hygiene ideology following the medical students' psychiatric clerkship. Gelfand and Ullmann later used the OMI scale (1961a) to study changes in attitudes of nursing students associated with

their psychiatric nursing experience. The authors found that these students became less authoritarian and less socially restrictive in their attitudes toward the mentally ill. The authors then investigated the relationship between authoritarianism and the students' achievement in both theory and practice and found a statistically significant negative correlation between achievement in theory and authoritarianism. No significant correlations were found between practice and authoritarianism. The authors concluded that although authoritarian attitudes are modifiable, change in behavior is not necessarily concomitant with change in attitudes. Findings of a study by Toomey et al. (1961) support this conclusion. In a study designed to test the hypothesis that attitudes of affiliating nursing students are related to their success in meeting the requirements of their affiliation, the authors administered a Psychiatric Attitudes Battery which consisted of four tests designed to assess general favorableness of attitudes toward psychiatric hospitals, psychiatrists and psychiatric treatment. Three of the four tests of the battery were developed by the authors: a Picture Attitudes Test, a projective technique; a Sentence Completion Attitudes Test; and a Multiple Choice Attitudes Test. The fourth test was an Attitude Scale developed by Souellm in 1955. The authors did not find any demonstrable relationship between students'

attitudes toward psychiatric matters and their proficiency in the practice of psychiatric nursing. In contrast, Morris (1964), using the practice section of the National League of Nursing Achievement Test in Psychiatric Nursing and students' course grades in practice, found that behavior in the clinical situation did reflect changes in attitudes in nursing students as measured by the previously described Opinions About Mental Illness Scale.

Relating to Gelfand and Ullmann's investigation of authoritarianism, Cantor and Shoemaker (1960) studied student nurse affiliates in psychiatric nursing. They administered the California F Scale (a thirty-item scale devised by Adorno and others to evaluate authoritarianism) and the Rosenzweig Picture Frustration Test (a projective technique consisting of 24 cartoon-like pictures designed to measure attitudes about punishment and aggression) in order to explore the relationship between authoritarian attitudes and attitudes toward mental patients. The authors concluded that student nurses had a general negative stereotype of the mental patient which, prior to their psychiatric experience, was seemingly independent of authoritarian attitudes. However, the high authoritarian group was less likely than other groups to change their negative stereotype following a program of affiliation which included both instruction and experience with patients.

Johannsen et al. (1964), using the Custodial Mental Illness Scale (a twenty-item bipolar scale which measures authoritarianism and liberalness in psychiatric care) and the Opinion about Mental Illness scale, found a marked drop in authoritarianism in nursing students as a result of psychiatric affiliation. They found that the psychiatric experience seemed to foster flexibility and psychological mindedness. It was also found that students' attitudes toward the type of care afforded mental patients became more liberal.

Related to the preceding studies of students is research concerning attitude change in psychiatric personnel as a function of in-service educational experiences. Studies have shown that in-service training for psychiatric personnel can improve both psychiatric nursing knowledge (Mehr, 1971) and attitudes toward mental illness (Distefano and Pryer, 1970; Pryer, Distefano and Marr, 1969).

Distefano and Pryer (1975) found that brief psychiatric training can increase the psychiatric nursing knowledge of both professional nurses and nurses' aides. There was a lack of significant attitude change in the nurses' group which was thought to be a result, in part, of their high pre-training attitude scores on the Opinions about Mental Illness scale. The results did suggest that brief training can improve attitudes of nurses' aides toward mental

illness. Aides were found to be significantly less restrictive in their attitudes toward mentally ill patients following training.

Bernstein et al. (1954) studied attitude change in the psychiatric personnel (of a Denver V.A.) resulting from a twenty hour in-service experience which included presentation of material, discussion, and role-playing of nurse-patient interactions. They measured five categories of nurses' responses to patients' statements: evaluative, hostile, supportive, probing, and understanding, and also measured social attitudes on a continuum ranging from authoritarian to democratic. An experimental group when compared to a control group showed a significantly greater decrease in evaluative, supportive and probing responses with a correspondingly greater increase in understanding responses. The experimental group also showed a significant shift towards the democratic end of the social attitudes continuum which was not seen in the control group. The authors concluded that nurses' skills and attitudes in interpersonal relationships can be modified significantly when planned educational experience supplements the nurses' direct interactions with patients.

Other studies have also indicated that experience with the mentally ill alone does not necessarily change attitudes, but planned education coupled with guided

experience with mentally ill patients can effect changes toward more favorable attitudes (Lundstedt and Lillibridge, 1966; Wright and Klein, 1966; Holtzberg and Gewirtz, 1963).

The Relationship of Student Attitude Change
To Attitudes Held by Their Faculty

Research in this area was scanty. One study was found in the literature which is related to this research project. Baker (1964) carried out a study of student attitude development. In order to obtain some idea of how students take positions in regard to attitudes toward patient care, he asked faculty and freshman, junior, and senior students of a four-year college program of nursing education to agree or disagree with a series of attitudinal items covering different facets of the way medical personnel care for patients. The results of his study indicated that the direction of attitude development in students was movement from dependence upon faculty attitudes towards independence from faculty attitudes and from invariability in freshmen to variability in seniors.

Summary

The literature reviewed indicates that attitudes about mental illness held by psychiatric personnel do have a great deal of importance in the effective treatment of psychiatric patients. Since this assumption has been generally accepted in the past decade, there has been much

interest in investigating the attitudes of psychiatric personnel and in exploring attitude change. The literature suggests that attitude change does take place as a function of didactic and experiential training both in formal educational courses and in-service type training programs.

Attitude changes which have been noted include: change in a favorable direction towards concepts such as Neurotic Woman, Neurotic Man; shifts toward agreement with statements typical of mental hygiene ideology; less authoritarianism and social restrictiveness; expansion of one's system of personal constructs; and, gains in emotional catharsis, empathic ability, flexibility, and psychological mindedness. Generally this research has been limited to description of what attitude change takes place.

As has been mentioned, there has been little investigation of the process of this change with the exception of the one study of Baker which focused on the relationship between the pattern of student attitude adoption and the attitudes held by their instructors.

CHAPTER 3

RESEARCH DESIGN

This research was designed to explore the following problems: What is the nature and extent of attitude change in nursing students during their undergraduate psychiatric nursing course? Is this attitude change in the direction of the attitudes held by their clinical instructor?

Design of Study

The study used an exploratory and comparative design to investigate the extent and direction of attitude change in nursing students during their psychiatric nursing affiliation. Student attitudes were measured before and after their psychiatric nursing course. These measurements were compared and any attitude changes noted were then compared with faculty attitudes. A structured attitude scale was utilized.

The Sample

The population for this study consisted of forty-two senior baccalaureate nursing students enrolled in their undergraduate psychiatric-mental health nursing course in a large western university and six of the seven university

faculty members teaching the course. The senior students were divided into seven groups for their clinical experience and each of the seven faculty members teaching the course supervised one group of students during their clinical experiences. The researcher made use of this division in her study so that there were seven student groups. All students enrolled in the psychiatric nursing course for spring quarter were asked to participate in the study, and the sample consisted of those students who volunteered after the nature, purpose and demands of the study had been explained.

Protection of Human Subjects

The researcher took a number of measures to insure the protection of the human subjects volunteering for the study.

A research proposal outlining the design and purpose of the research was presented to the University of Arizona College of Nursing Research Committee and the Human Subjects Committee for approval to insure the protection of the rights of the human subjects.

Before the subjects were asked to volunteer the nature, purpose, and demands of the research were explained thoroughly to the subjects and time was allowed for questions. The subjects were then asked to read carefully and consider signing a Subjects Consent form (see Appendices

A and B) which again explained the nature, purpose, and demands of their participation. Time was again allowed for questions. The subjects were then asked to fill out the questionnaires if they were willing to volunteer.

The researcher used a coding system so that confidentiality would be insured. Answer sheets were numbered. To each answer sheet was attached a subject's consent form with an identical number. This was done so that test scores could be identified by this number. The researcher was the only person to have access to these forms connecting individuals to their test results and she carefully guarded the confidentiality of this information.

Research Tool

The instrument which provided measurement of attitudes was the Opinions About Mental Illness (OMI) Scale developed by Cohen and Struening (1959, 1960, 1962, 1963, 1964, 1965). It is composed of 51 six-point, Likert-type items ranging from strongly agree to strongly disagree which measure five distinct attitude dimensions. The scale was constructed from a pool of statements concerning the description, treatment, cause, and prognosis of severe mental illness. The authors have carried out a number of studies in developing and refining the tool. Factor analysis of the responses of 541 Veterans Administration Hospital psychiatric personnel led to the identification of five

salient dimensions underlying attitudes about mental illness. Another similar study carried out at a second Veterans Administration Hospital had similar results.

Following are descriptions of the five factors or attitude dimensions:

Factor A -- Authoritarianism. Persons scoring high on this factor tend to see psychiatric patients as inferior, dangerous, impulse ridden and needing strict handling-- persons lacking moral strength from whom society needs to be protected. This scale also reflects submission to authority.

Factor B -- Benevolence. High scores on this factor reflect a kindly paternalistic attitude toward psychiatric patients who are viewed as childish and unfortunate. A rather moralistic attitude toward mental patients is also reflected.

Factor C -- Mental Hygiene Ideology. This factor reflects an orientation based on beliefs of persons active in the mental health field. High scores represent a treatment orientation and a liberal humanitarian social outlook. Psychiatric patients are seen as similar to normals, differing from them in degree but not in kind.

Factor D -- Social Restrictiveness. High scorers would like to see psychiatric patients restricted for protection of society and the family. Implied is the belief

that mental illness requires limitation of social function both during and after hospitalization.

Factor E -- Interpersonal Etiology. Persons scoring high on this factor recognize the importance of interpersonal relationships and motivation in abnormal behavior and place emphasis on the effects of childhood experience, especially early love deprivation.

Each of these five factors are defined by a group of the 51 items.

Struening and Cohen (1963) demonstrated satisfactorily the factorial stability of these five factors across three samples of mental hospital personnel in a later study. The results of these three factorial analyses provided the basis for the current scoring of the 51 items into the five above-described factors.

Rabkin (1972), in her review of literature, has stated that the OMI scale developed by Cohen and Struening seems to be the most reliable, comprehensive and valid instrument now available for measuring attitudes toward mental illness and is at present the most widely used instrument and most popular among investigators in this field.

Collection of Data

The researcher made arrangements to contact the senior students and faculty members during the first and last class meetings of their psychiatric nursing course.

This was done in order to measure student and faculty attitudes prior to any of the course content being presented to students and before students had had any clinical experience and then after students had completed their course. The researcher introduced herself to the subjects and explained the purpose, nature and structure of the research. Each person was handed a packet containing an answer sheet with a coding number on it (see Appendix D), the OMI scale pamphlet, and a Subject's Consent Form (see Appendices A and B) with the same coding number appearing on the answer sheet. The researcher asked that each person read the Subject's Consent Form carefully, ask any questions they might have, and sign the form if they were willing to volunteer. The voluntary nature and confidentiality of participation were emphasized and the researcher emphasized that she would be available to share and explain individuals' own scorings on the scales with those who wished this sort of feedback.

Other data collected besides OMI Scale scores were: (1) age; (2) sex; (3) number of years of school completed; (4) degrees attained; (5) dates degrees received; (6) religious background; (7) ethnic background; (8) clinical area of preference in nursing; (9) date of graduation (if applicable).

CHAPTER 4

ANALYSIS AND DISCUSSION OF DATA

In order to answer the research questions "What is the nature and extent of attitude change in nursing students during their psychiatric nursing course?" and "What is the relationship between students' attitude adoption and the attitudes held by their clinical instructor?" two hypotheses were tested through analysis of the data.

The questionnaire responses of all the subjects were scored using the scoring formulae developed by Cohen and Struening (1963) (see Appendix C). Mean scores for each of the five factors were calculated for the whole sample, the faculty group, and the student group for the pretests and the posttests. Further statistical analyses were done in relation to each hypothesis.

Hypothesis One

The first hypothesis tested was: Nursing students' attitudes about mental illness will change during their psychiatric affiliation. This hypothesis was accepted.

Students' mean scores on the pretests were compared with posttest scores for each of the five factors and

t-values were calculated (see Table 1). Significant changes were found for four out of the five factors. On Factor A, Authoritarianism, the mean of the student group decreased from 15.0238 to 12.9524 (2.0714) yielding a t-value of 3.78 significant beyond the .001 level. This indicates that the student group decreased significantly in authoritarian attitudes about mental illness. On Factor B, Benevolence, the mean of the student group increased from 48.5122 to 50.6585 (-2.1463) yielding a -2.89 t-value which was significant beyond the .01 level and indicated that the student group became significantly more benevolent in their attitudes toward psychiatric patients. On Factor C, Mental Hygiene Ideology, the mean score of the student group increased only slightly from 31.6859 to 31.7561 (-.0732). This change yielded a t-value of -.10 which did not meet the probability level of .05 so was not considered significant. On Factor D, Social Restrictiveness, the mean score decreased from 16.1500 to 14.2500 (1.900). This difference yielded a t-value of 2.24 which was significant beyond the .05 level and indicated that the student group became significantly less socially restrictive in their attitudes towards the mentally ill. On Factor E, Interpersonal Etiology, the student group's mean score increased from 15.4048 to 17.9524 (-2.5476) yielding a t-value of -3.25, significant beyond the .01 level. This indicated that the group

Table 1. Mean OMI Scores before and after a Course in Psychiatric Nursing for Students; Mean Differences; t-values and Probability Levels.

Opinion	Mean Before	Mean After	Difference	t-value	2-tail Prob.
Authoritarianism	15.0238	12.9524	2.0714	3.78	.000 ⁺
Benevolence	48.5122	50.6585	-2.1463	-2.89	.006 ⁺
Mental Hygiene Ideology	31.6859	31.7561	-.0732	-.10	.917
Social Restrictiveness	16.1500	14.2500	1.9000	2.24	.031 ⁺
Interpersonal Etiology	15.4048	17.9524	-2.5476	-3.25	.002 ⁺

⁺Probability value above the .05 level accepted as minimum level of significance.

of students increased significantly in their acceptance of concepts inherent in Interpersonal Etiology.

No specific predictions were made about the likelihood of the individual factors changing as a function of the psychiatric nursing course. The review of literature revealed information in this area was scanty so that specific predictions would have been quite tenuous at best. The general hypothesis that some type of attitude change would be evidenced, based on the results of several other studies, received added confirmation. The nursing students changed significantly on four of the five factors.

In general, reductions in attitude scores on authoritarianism and social restrictiveness and increases in mental hygiene ideology and interpersonal etiology have been considered positive attitude changes. Changes in scores on benevolence have been less clear. A reduction in scores on this factor originally were interpreted as a negative change (Cohen and Struening, 1962). Recently training research with the OMI has revealed increases in benevolence associated with increases in mental hygiene ideology and decreases in social restrictiveness (Distefano and Pryer, 1970; Walsh, 1971) so that it is seen as a positive change.

The present research replicated the findings of previous studies (Gelfand and Ullman, 1961a; Morris, 1964; Johannsen et al., 1964; and Walsh, 1971) that

authoritarian attitudes are reduced significantly as a function of a course in psychiatric nursing. This decrease in authoritarian attitudes was coupled with a significant decrease in social restrictiveness (also found by Walsh, 1971 and Gelfand and Ullman, 1961a), a significant increase in Benevolence (replicating findings of Walsh, 1971; Johannsen et al., 1964; and Distefano and Pryer, 1970), and a significant increase in acceptance of Interpersonal Etiology concepts (also found by Walsh, 1971 and Morris, 1964). There was no significant change noted in Mental Hygiene Ideology. This finding is in agreement with most of the previous studies reviewed. Only in the study by Walsh (1971) was there any significant change noted in the Mental Hygiene Ideology factor.

Several reasons can be offered to account for this differential change. Nunnally and Osgood (1958) have demonstrated that subjects will tend to reject messages about mental illness if the messages are relatively high in provoking anxiety or are too personal. Questions on the OMI scale favoring Mental Hygiene Ideology concepts may have been anxiety producing or too personal for the student nurses. This factor stresses the similarities rather than the differences between patient and non-patient. This concept may have represented too close an identification with the patient for the student nurses to accept. Instead

they accepted ideas in the other four factors which allowed for the patient to be seen as different from the student, as somewhat childish (high benevolence); as having unfortunate childhood or life experiences (high on interpersonal etiology) but not deserving of the restrictive and authoritarian methods used by society for their control (low authoritarian and socially restrictive attitudes).

Other factors which affect attitudes toward the mentally ill have been identified by Cohen and Struening (1960). These may have influenced the present findings. They reported a strong relationship between college graduate level education and acceptance of factors C and E. Gelfand and Ullmann (1961a, 1961b) have also noted that there is greater change on these factors in graduate students as compared with undergraduate students. The lack of significant change on Factor C in this research may have represented this relationship. Cohen and Struening also noted that women score higher than men on Social Restrictiveness because many of the OMI scale items question what women should do in social relations with male mental patients. Though the student nurses changed significantly in social restrictiveness, they changed much less on this factor (.031) than on Factors A, B, and E (.000, .006, and .002 respectively). It should be noted that 41 out of the 42 student subjects in this research were women.

Hypothesis Two

The second hypothesis tested was: Attitude change in nursing students during their psychiatric affiliation will be in the direction of the attitudes held by their clinical instructor. This hypothesis was rejected. In testing this hypothesis mean scores for the student group were compared with faculty mean scores for each of the five factors on both the pretest and the posttest. Using pooled variance estimates, t-values and 2-tail probabilities were calculated to evaluate the significance of the variance between student and faculty mean scores (see Table 2). As can be noted from Table 2 there were no 2-tail probabilities at or beyond the .05 level on the pretest or posttest comparisons indicating that the student and faculty groups were not significantly different on any of the five factors at the beginning or at the end of the nursing course. Of particular significance to the present research is the lack of significant difference between the groups at the beginning of the psychiatric nursing course. Obviously one cannot measure whether the two groups became more similar during the nursing course if they were not statistically dissimilar on their pretests. At this point another statistical approach was used. Wright (1976) suggests the sign test as an alternative to the repeated measures t-test, useful when parametric assumptions are in doubt and also when quick and

Table 2. Pre-course and Post-course Mean OMI Scores for Students and Faculty; t-values; and Probability Levels.

Opinion Factor	Group	<u>Pretest</u>			<u>Posttest</u>			
		Mean	t-value	2-tail Prob.	Group	Mean	t-value	2-tail Prob.
Authoritarianism	Student	15.0238	1.04	.303	Student	12.9524	.79	.436
	Faculty	12.8333			Faculty	11.2500		
Benevolence	Student	48.7857	-.02	.982	Student	50.6585	.54	.595
	Faculty	48.8333			Faculty	49.5000		
Mental Hygiene Ideology	Student	31.6905	-.39	.696	Student	31.7561	-1.43	.159
	Faculty	32.3333			Faculty	35.0000		
Social Restrictiveness	Student	16.0000	1.14	.259	Student	14.2500	-.08	.934
	Faculty	13.5000			Faculty	14.5000		
Interpersonal Etiology	Student	15.4048	1.16	.250	Student	17.9524	.67	.507
	Faculty	12.8333			Faculty	16.2500		

easy test of significance between sets of measures that are related is desired. This sign test was carried out by taking each pair of student-faculty pretest mean scores, noting whether the student score was above or below the faculty score, and then noting whether the student posttest score changed in the direction of the faculty pretest scores. Student scores did move in the direction of faculty scores for all factors except Factor E, Interpersonal Etiology. Here again the changes noted were not statistically significant.

A number of reasons may be offered to account for these findings. In regard to the question "Why didn't the faculty group differ significantly from the student group initially?" three factors were considered. First, the faculty n was quite small, standard errors were high, and there was a high degree of variability within the group. It was therefore impossible to make a tight estimate of exactly where the faculty group was in terms of attitudes. As a result instructors did not appear statistically dissimilar from students on either the pretest or posttest. The students also may have played a part in the findings. The subjects were senior nursing students. Most of them were in their last semester before graduation. At that point in their college career most of the socialization process for the students would have been completed--a time when students would be most like their social models, the faculty members.

Another factor which may partially account for the findings was the number of years of education of the subjects. Table 3 shows findings by Cohen and Struening (1960) of the mean OMI scores of the employees of two large psychiatric hospitals arranged according to years of education. These are compared to student and faculty scores from the present research. Scores are comparable on a number of factors. Since Cohen and Struening (1962) have found OMI scores to be related to the amount and type of formal education, it has been suggested (Distefano and Pryer, 1970) that the OMI may have limitations as an instrument to assess attitude change among nurses or certain other professional groups who tend to score more favorably on these scales.

A second question relevant to the findings is "Why didn't the groups become more similar or dissimilar on the posttest since there was significant change evidenced in the student group on four of the five factors?" It would initially seem that the students' attitudes would therefore be moving closer to or further away from faculty attitudes. As was previously stated, due to the small faculty n, there was a high degree of variability in the faculty group on both pretest and posttest. It was therefore difficult to make a clear or tight estimate of the degree of change in the faculty group. As a result of the high degree of variability in the faculty group, the student group could vary

Table 3. Means of OMI Factor Scales by Years of Education for Hospital I and II Compared to Students and Faculty of Present Research.

Years of Education	N _I	N _{II}	<u>Factor A</u>		<u>Factor B</u>		<u>Factor C</u>		<u>Factor D</u>		<u>Factor E</u>	
			I	II								
13 - 15	60	86	22.4	24.2	45.8	45.5	33.9	33.7	19.7	20.4	18.7	20.1
16 - 18	79	62	15.8	19.0	43.2	44.2	36.8	37.8	20.7	19.8	18.8	20.6
	Stu- dents	Fac- ulty										
	42	6	15.0	12.8	48.8	48.8	31.7	32.3	16.0	13.5	15.4	12.8

significantly and still be within the range of faculty variability. This accounts for the lack of significant change in variability between groups from pretest to post-test.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A summary of the research follows. Conclusions from the data are specified and related to the conceptual framework. Recommendations based on the data are presented.

Summary

This research was undertaken to determine the nature and extent of attitude change in nursing students during their psychiatric affiliation and to determine if student attitude change was in the direction of the attitudes held by their clinical instructor. Two hypotheses were tested: 1) Student attitudes about mental illnesses will change during their psychiatric affiliation. 2) Attitude change in nursing students during their psychiatric affiliation will be in the direction of attitudes held by their clinical instructor. The Opinions About Mental Illness scale developed by Cohen and Struening (1959, 1960, 1962, 1963, 1965) was used to measure attitudes about mental illness of senior nursing students taking their psychiatric nursing course and of the faculty members teaching the course. Forty-two student subjects and six faculty subjects were tested during

the first and last meetings of the course to obtain pre-course and post-course measures of attitudes. Raw data were analyzed using the t-test, 2-tail probability and sign test to determine the significance of the difference between student attitudes and faculty attitudes on both the pretest and posttest. It was found that students changed significantly on four of the five attitude factors. They decreased significantly in authoritarianism and social restrictiveness attitude factors and increased significantly on the benevolence and interpersonal etiology attitude factors. There was no significant change in students noted on the mental hygiene ideology attitude factor. It was also found that the student group and faculty group were not statistically dissimilar on the pretest or the posttest. Based on these analyses of the data, the first hypothesis, that students would change in their attitudes during their psychiatric nursing course, was accepted and the second hypothesis, that student attitude change would be in the direction of attitudes held by their clinical instructor, was rejected.

Conclusions

The findings indicated that student attitudes do change significantly during their psychiatric nursing course. Specifically, it was concluded that the four attitude factors authoritarianism, benevolence, social restrictiveness, and interpersonal etiology are amenable to change

and this was a function of the psychiatric nursing experience. The lack of change in the mental hygiene ideology factor replicates the findings of other researchers, hence, the researcher concluded that attitudes inherent in the mental hygiene ideology factor are not easily amenable to change. The researcher further concluded that the attitude changes were an important part of the learning process that took place during the psychiatric nursing course and that this is an important area of consideration for nursing educators. As was indicated in the conceptual framework, attitudes about mental illness held by psychiatric personnel are extremely important in the effective treatment of the mentally ill (Stanton and Schwartz, 1954; Cohen and Struening, 1959; Allport, 1954). Thus, the process of attitude development would seem to be a pressing consideration for psychiatric nursing education. The present research replicates previous research in their findings that attitude change is a function of courses in psychiatric nursing. Since it had already been fairly well established that attitude change does take place, the present research attempted to build upon previous findings and investigate the question of how this attitude change takes place. Specifically the researcher investigated whether the attitude change does take place within the student-instructor relationship as is often assumed. No specific conclusions were drawn in this

area. The research findings in relation to the second hypothesis (concerning the relationship between student attitude change and attitudes held by their clinical instructors) were not statistically significant. This was related to the small n of the faculty group. The findings shed little light on the relationship between student attitude development and faculty attitudes. It is the researcher's belief that change in attitude about mental illness was not just a matter of providing information and/or contact with psychiatric patients, but involved a number of factors not clearly delineated or understood. What part faculty attitudes play in this picture remains unclear. It was concluded that extensive investigation is needed in this area.

Recommendations

From the preceding conclusions the researcher makes the following recommendations for extending and complimenting the present research.

1) Replication of this study following basically the same methodology with one or more of the following additions or modifications:

- A larger n for the faculty group more equal to the student group n should be used.
- Include more than one college of nursing--possibly in various areas of the country.

- Prior to testing of the students it might be useful to carry out more extensive investigation of faculty members' attitudes including faculty teaching in various clinical settings rather than just psychiatric nursing faculty.
- Coupled with the previous suggestion it would be extremely helpful to investigate the development of attitudes about mental illness in nursing students throughout their whole college experience. Starting with their freshman year, nursing students might be tested at various points in their college career including before and after their psychiatric nursing experience since attitude development is an ongoing process and not the product of just one course.
- The OMI scale might be coupled with evaluations of knowledge and clinical performance with the intent of investigating how change in attitude is converted into everyday clinical practice and knowledge.

2) Nursing educators should consider what is desirable in terms of direction of attitude change as they investigate the present issue of how educators affect attitude/change in students.

3) Since increases in the Mental Hygiene Ideology attitude factor are considered desirable it would seem

worthwhile to investigate further the lack of change on this attitude factor identified fairly consistently throughout the research.

APPENDIX A

STUDENT CONSENT FORM

SUBJECT'S CONSENT

I understand that Judi Wheeler, R.N., a graduate student in Psychiatric-Mental Health Nursing at the University of Arizona, is conducting a study entitled "Change in Opinion About Mental Illness Associated with Psychiatric Nursing Affiliation." The main purpose of this study is to collect data to determine what opinions about mental illness student nurses and their instructors hold before and after a course in psychiatric nursing. It is hoped that information will benefit nursing educators as well as others in the mental health field.

I understand that my participation is voluntary and involves completing a 51-item questionnaire made up of statements about mental illness which I will be asked to agree or disagree with. This will take me approximately 30 minutes and I will be asked to complete the questionnaire twice on February 23 and on May 3. I also understand that I am free not to participate or to withdraw with no ill will or risk to my academic standing and that the questionnaire is totally unrelated to any evaluation of my performance in my psychiatric nursing course or my course grade.

I understand that the investigator will be available to answer any questions I may have about the study or any of the items in it and that she will be available to share and explain the results of my two questionnaires following completion of the second if I so desire.

I understand that all confidentiality will be insured. I will be asked to sign my name to a card attached to the questionnaire with an identification number on it. This number will also appear on the questionnaire and is needed by the researcher so that she will be able to identify and compare my February 23 and May 3 scores. I understand that the researcher will be the only person who will have access to this card which connects my name with the questionnaire I fill out and that this will remain completely confidential.

I understand that data and results of the research will be shared with faculty and students who are interested and that it will be printed in a thesis which will be available in the University of Arizona libraries.

I have read the above "Subject's Consent". I understand the nature and demands of the project and I am willing to participate.

Signature _____

Date _____

APPENDIX B

FACULTY CONSENT FORM

SUBJECT'S CONSENT

I understand that Judi Wheeler, R.N., a graduate student in Psychiatric-Mental Health Nursing at the University of Arizona, is conducting a study entitled "Change in Opinion About Mental Illness Associated with Psychiatric Nursing Affiliation." The main purpose of this study is to collect data to determine what opinions about mental illness student nurses and their instructors hold before and after a course in psychiatric nursing. It is hoped that the information will benefit nursing educators as well as others in the mental health field.

I understand that my participation is voluntary and involves completing a 51-item questionnaire made up of statements about mental illness which I will be asked to agree or disagree with. This will take me approximately 30 minutes and I will be asked to complete the questionnaire twice, once on February 23 and once on May 3. I also understand that I am free not to participate or to withdraw with no ill will.

I understand that the investigator will be available to answer any questions I may have about the study or any of the items in it and that she will be available to share and explain the results of my two questionnaires following completion of the second if I so desire.

I understand that all confidentiality will be insured. I will be asked to sign my name to a card attached to the questionnaire with an identification number on it. This number will also appear on the questionnaire. This number is needed by the researcher so that she will be able to identify and compare my February 23 and May 3 scores. I understand that the researcher will be the only person who will have access to this card which connects my name with the questionnaire I fill out and that this will remain completely confidential.

I understand that data and results of the research will be shared with faculty and students who are interested and that it will be printed in a thesis which will be available in the University of Arizona libraries.

I have read the above "Subject's Consent". I understand the nature and demands of the project and I am willing to participate.

Signature _____

Date _____

APPENDIX C

SCORING PROCEDURE

OPINIONS ABOUT MENTAL ILLNESS

Scoring Procedure

All items, regardless of the "direction" of their content, are scored as follows:

1	2	3	4	5	6
strongly agree	agree	not sure but probably agree	not sure but probably disagree	disagree	strongly disagree

Each factor or dimension is defined by a particular group of items. The numbers of those items contributing to each factor score are indicated in the formulae below. In computing the factor scores each item receives the appropriate number according to the respondent's position on the agree-disagree continuum, as indicated above. The formulae are as follows:

<u>Factor</u>	<u>Formula</u>
A	$= 67 - \Sigma (1, 6, 9, 11, 16, 19, 21, 39, 43, 46, 48)$
B	$= 31 + \Sigma (26, 32, 34, 36, 37, 40, 49) - \Sigma (2, 12, 17, 18, 22, 27, 47)$
C	$= 48 + \Sigma (31) - \Sigma (3, 13, 23, 28, 33, 38, 44, 50)$
D	$= 47 + \Sigma (8, 41) - \Sigma (4, 7, 14, 24, 29, 42, 45, 51)$
E	$= 43 - \Sigma (5, 10, 15, 20, 25, 30, 35)$

To illustrate, if one agrees strongly with all items defining Factor A, he receives a score of $67 - 11 = 56$. If he disagrees with all items, he receives a score of $67 - 66 = 1$.

If, in Factor D, he agrees with Items 8 and 41 and disagrees with the remaining items, he receives a score of $47 + 4 - 40 = 11$.

APPENDIX D

ANSWER SHEET

1.	strongly agree	agree	not sure but pro- bably agree	not sure but pro- bably disagree	disagree	strongly disagree
2.	_____	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____	_____
11.	_____	_____	_____	_____	_____	_____
12.	_____	_____	_____	_____	_____	_____
13.	_____	_____	_____	_____	_____	_____
14.	_____	_____	_____	_____	_____	_____
15.	_____	_____	_____	_____	_____	_____
16.	_____	_____	_____	_____	_____	_____
17.	_____	_____	_____	_____	_____	_____
18.	_____	_____	_____	_____	_____	_____
19.	_____	_____	_____	_____	_____	_____
20.	_____	_____	_____	_____	_____	_____
21.	_____	_____	_____	_____	_____	_____

	strongly agree	agree	not sure but pro- bably agree	not sure but pro- bably disagree	disagree	strongly disagree
22.	_____	_____	_____	_____	_____	_____
23.	_____	_____	_____	_____	_____	_____
24.	_____	_____	_____	_____	_____	_____
25.	_____	_____	_____	_____	_____	_____
26.	_____	_____	_____	_____	_____	_____
27.	_____	_____	_____	_____	_____	_____
28.	_____	_____	_____	_____	_____	_____
29.	_____	_____	_____	_____	_____	_____
30.	_____	_____	_____	_____	_____	_____
31.	_____	_____	_____	_____	_____	_____
32.	_____	_____	_____	_____	_____	_____
33.	_____	_____	_____	_____	_____	_____
34.	_____	_____	_____	_____	_____	_____
35.	_____	_____	_____	_____	_____	_____
36.	_____	_____	_____	_____	_____	_____
37.	_____	_____	_____	_____	_____	_____
38.	_____	_____	_____	_____	_____	_____
39.	_____	_____	_____	_____	_____	_____
40.	_____	_____	_____	_____	_____	_____
41.	_____	_____	_____	_____	_____	_____
42.	_____	_____	_____	_____	_____	_____
43.	_____	_____	_____	_____	_____	_____
44.	_____	_____	_____	_____	_____	_____
45.	_____	_____	_____	_____	_____	_____

46.	strongly agree	agree	not sure but pro- bably agree	not sure but pro- bably disagree	disagree	strongly disagree
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47.	_____	_____	_____	_____	_____	_____
-----	-------	-------	-------	-------	-------	-------

48.	_____	_____	_____	_____	_____	_____
-----	-------	-------	-------	-------	-------	-------

49.	_____	_____	_____	_____	_____	_____
-----	-------	-------	-------	-------	-------	-------

50.	_____	_____	_____	_____	_____	_____
-----	-------	-------	-------	-------	-------	-------

51.	_____	_____	_____	_____	_____	_____
-----	-------	-------	-------	-------	-------	-------

52. Age: _____

53. Sex: Male _____ Female _____

54. How many years of school have you completed? (from the first grade) _____

55. What college degrees have you earned? And when earned?

56. Religious Preference: _____

57. Ethnic Background: _____

58. Date of Graduation: (if applicable) _____

59. Clinical Area Preference in Nursing: _____

REFERENCES

- Allport, G. W. "Attitudes in the History of Social Psychology," In Handbook of Social Psychology. Gardner Lindsey (ed.) Cambridge, Massachusetts: Addison Wesley Publishing Co., 1954, Vol. I, pp. 43-45.
- Altrocchi, John. "Changes in Favorableness of Attitudes Towards Concepts of Mental Illness," American Psychologist, 15:461, July, 1960 (abstract).
- Baker, Sheldon R. "Study of Attitude Change in a College Program of Nursing Education," Nursing Research, 13:345-347, Fall 1964.
- Bernstein, Lewis, Marie L. Brophy, Mary Jane McCarthy, and Ruby L. Roepe. "Teaching the Nurse-Patient Relationship: An Experimental Study," Nursing Research, 3:80-84, October, 1954.
- Brown, Amy F. Curriculum Development. Philadelphia: W. B. Saunders Co., 1960.
- Canter, F. M. and Ruth Shoemaker. "The Relationship Between Authoritarian Attitudes and Attitudes Toward Mental Patients," Nursing Research, 9:39-41, Winter 1960.
- Cohen, Jacob and Elmer Struening. "Factors Underlying Opinion about Mental Illness in the Personnel of a Large Mental Hospital," American Psychologist, 14:339, July, 1959 (abstract).
- Cohen, Jacob and E. L. Struening. "Attitudes Toward the Mentally Ill of Psychiatric Hospital Personnel as a Function of Occupation, Education, Sex, and Age," American Psychologist, 15:417, July, 1960 (abstract).
- Cohen, Jacob and E. L. Struening. "Opinions About Mental Illness in the Personnel of Two Large Mental Hospitals," Journal of Abnormal and Social Psychology, 64:349-360, May, 1962.

- Cohen, Jacob and E. L. Struening. "Opinions About Mental Illness; Mental Hospital Occupation Profiles and Profile Clusters," Psychological Reports, 12:111-124, February, 1963.
- Cohen, Jacob and E. L. Struening. "Opinions About Mental Illness; Hospital Social Atmosphere Profiles and Their Relevance to Effectiveness," Journal of Consulting Psychology, 28:291-298, August, 1964.
- Cohen, Jacob and E. L. Struening. "Opinions About Mental Illness; Hospital Differences in Attitude for Eight Occupation Groups," Psychological Reports, 17:25-26, August, 1965.
- Costin, Frank and W. D. Kerr. "Effects of a Mental Hygiene Course on Graduate Education Students' Attitudes and Opinions Concerning Mental Illness," Journal of Educational Research, 60:35-40, September, 1966.
- Dawson, E. D. and Ross Stagner. "Group Pressure, Attitude Change, and Autonomic Involvement," Journal of Social Psychology, 45:299-312, 1957.
- Distefano, M. K., Jr. and M. W. Pryer. "Stability of Attitudes in Psychiatric Attendants Following Training," Mental Hygiene, 54:433-435, July, 1970.
- Distefano, M. I., Jr. and M. W. Pryer. "Effect of Brief Training on the Mental Health Knowledge and Attitudes of Nurses and Nurses' Aides in a General Hospital," Nursing Research, 24:40-42, Winter, 1975.
- Dixon, C. R. "Courses in Psychology and Students' Attitudes Toward Mental Illness," Psychological Reports, 20:50, February, 1967.
- Fischer, Lorene R. "Effects of Attitudes Upon the Nursing Care of Emotionally Disturbed Children," Nursing Clinics of North America, 1:225-234, June, 1966.
- Gelfand, S. and L. P. Ullmann. "Attitude Changes Associated with Psychiatric Affiliation," Nursing Research, 10:200-204, Fall, 1961a.
- Gelfand, S. and L. P. Ullmann. "Change in Opinion About Mental Illness Associated with Psychiatric Clerkship Training," International Journal of Social Psychiatry, 7:292-298, Autumn, 1961b.

- Gilbert, Doris C. and D. J. Levinson. "Ideology, Personality and Institutional Policy in the Mental Hospital," Journal of Abnormal and Social Psychology, 53:263-271, November, 1956.
- Holtzberg, J. D. and H. Gewirtz. "Methods of Altering Attitudes Toward Mental Illness," Psychoanalytic Quarterly Supplement, 37 (1):56-61, 1963.
- Holtzberg, Jules D., Robert H. Knapp and John L. Turner. "Companionship with the Mentally Ill: Effects on the Personalities of College Student Volunteers." Psychiatry, 29:395-405, November, 1966.
- Johannsen, Walter J., Sister Constance Redel and Roger G. Engel. "Personality and Attitudinal Changes During Psychiatric Nursing Affiliation," Nursing Research, 13:342-345, Fall, 1964.
- Kandler, Harriet M. and R. W. Hyde. "Changes in Empathy in Nursing Students During the Psychiatric Affiliation," Nursing Research, 2:33-36, June, 1963.
- Kellam, Sheppard G. and J. B. Chassen. "Social Context and Symptom Fluctuation," Psychiatry, 25:370-381, November, 1962.
- Kellam, Sheppard G., Jack Durell and Richard I. Shader. "Nursing Staff Attitudes and the Clinical Course of Psychotic Patients," Archives of General Psychiatry, 14:190-192, February, 1966.
- Klerman, G. A. "Assessing the Influence of the Hospital Milieu Upon the Effectiveness of Psychiatric Drug Therapy: Problems of Conceptualization and Research Methodology," Journal of Nervous and Mental Disorders, 137:143-154, August, 1963.
- Linn, E. L. "Drug Therapy, Milieu Change, and Release from a Mental Hospital," Archives of Neurologic Psychiatry, 81:785-795, 1959.
- Lundstedt, Sven and John Lillibridge. "Effects of Increased Staff Participation on Patient Care and Staff Attitudes," Mental Hygiene, 50:432-438, July, 1966.
- Mehr, J. "Evaluating Non-Traditional Training for Psychiatric Aides," Hospital and Community Psychiatry, 22:315-318, October, 1971.

- Morris, Katherine D. "Behavior Change: A Concomitant of Attitude Change in Nursing Students," Nursing Research, 13:132-138, Spring, 1964.
- Mueller, W. J. "Anxiety Level, Inferred Identification and Response Tendencies on a Semantic Differential," Journal of Counseling Psychology, 13:144-150, 1966.
- Nunnally, J. C. and C. E. Osgood. The Development of Change of Popular Conceptions About Mental Illness. Urbana, Illinois: Institute of Communications Research, University of Illinois, 1958.
- Pryer, M. W., M. K. Distefano, and L. W. Marr. "Attitude Changes in Psychiatric Attendants Following Experience and Training," Mental Hygiene, 53:253-257, April, 1969.
- Rabkin, Judith C. "Opinions about Mental Illness: A Review of Literature," Psychological Bulletin, 77:153-170, March, 1972.
- Rhine, R. J. "Effect of Peer Group Influence Upon Concept Attitude Development and Change," Journal of Social Psychology, 51:173-179, February, 1960.
- Rickelman, Bonnie L. "Reactions of Staff to Psychiatric Patients," Nursing Forum, 13:147-156, 2, 1974.
- Salskin, M. and J. Ramot. "Pharmacotherapeutic Evaluation of the Psychiatric Setting," Archives of Neurological Psychiatry, 75:362-370, 1956.
- Siegel, Alberta E. and S. Siegel. "Reference Groups, Membership Groups, and Attitude Change," Journal of Abnormal and Social Psychology, 55:360-364, November, 1957.
- Stanton, A. H. and M. S. Schwartz. The Mental Hospital: A Study of Institutional Participation in Psychiatric Illness and Treatment. New York: Basic Books, 1954.
- Struening, E. L. and Jacob Cohen. "Factorial Invariance and Other Psychometric Characteristics of Five Opinions About Mental Illness Factors," Educational Psychological Measurements, 23:289-298, Summer, 1963.

- Toomey, Laura C., Marvin Regnikoff, John Paul Brady and W. Dwight Schumann. "Some Relationships Between the Attitudes of Nursing Students Toward Psychiatry and Success in Psychiatric Affiliation," Nursing Research, 10:165-169, Summer, 1961.
- Walsh, Joan E. "Instruction in Psychiatric Nursing, Level of Anxiety, and Direction of Attitude Change Toward the Mentally Ill," Nursing Research, 20:523-529, November-December, 1971.
- Wing, J. K. and G. W. Brown. "Social Treatment of Chronic Schizophrenia: A Comparative Survey of Three Mental Hospitals," Journal of Mental Science, 107:847-861, 1961.
- Wright, F. H. and R. A. Klein. "Attitudes of Hospital Personnel and the Community Regarding Mental Illness," Journal of Counseling Psychology, 13:106-107, Spring, 1966.
- Wright, R. L. D. Understanding Statistics: An Informal Introduction for the Behavioral Sciences. New York: Harcourt-Brace-Jovanovich, Inc., 1976.

