

MEDICAL STUDENTS' AND NURSING STUDENTS' ATTITUDES
TOWARD PATIENTS WITH MENTAL ILLNESS

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF HEALTH SCIENCES

BY

MARIAN C. HOLDEN, M.S.N., R.N., C.S.

DENTON, TEXAS

DECEMBER 1999

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

9/15/99

Date

To the Associate Vice President for Research and Dean of the Graduate School:

I am submitting herewith a dissertation written by Marian C. Holden entitled "Medical Students" and Nursing Students' Attitudes Toward Patients with Mental Illness." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Health Education.

Susan Ward

Dr. Susan Ward, Major Professor

We have read this dissertation
and recommend acceptance.

Era Doyle

William B. Cusell

Susan Ward

Department Chair

Accepted:

Jean L. Pyfer

Dean, College of Health Sciences

Leslie M. Thompson

Associate Vice President for Research
and Dean of the Graduate School

DEDICATION

I dedicate this to all the patients who perceived that treatment for their mental illnesses was less than satisfactory due to the attitudes of their care givers toward mental illness. I have had the privilege of working with them for 9 years. The lack of respect they receive inspired me to research the problem further. My hope is that this study will serve a small part toward increasing the awareness of health professionals about the stigma of mental illness that still exists, not only in our society but in the medical profession as well. I would like to see a time when mentally ill patients receive the respect and quality of care that is accorded to the nonmentally ill.

ACKNOWLEDGMENTS

To God be the glory for any and all accomplishments in my life including this course of study and the resulting work contained herein.

My thanks and gratitude to Dr. Susan Ward, my Chairperson, for her patience, support, encouragement, and guidance throughout this project. A special thanks for her kindness and acknowledging my credibility when such existed. I am grateful for my other committee members, Dr. Eva Doyle and Dr. Bill Cissell for their kind assistance and gentle support.

I want to thank the staff and students at the Dallas Veteran's Affairs Medical Center who made it possible for me to obtain the data and to complete my study.

To my family, especially my beloved children, Debbie Holden, Cathy Hamilton, Jennifer Dealy, and Marc Holden who encouraged me to obtain, not only the Doctor of Philosophy degree, but all the preceding schooling I had in order to get to this point. Without the help of each one of them through the years this would not have been possible. Last and certainly not least, I will be eternally grateful to my former husband, Crosby G.

Holden who was my biggest cheerleader. Without his support, understanding, and encouragement I would not have been able to complete this journey.

ABSTRACT

COMPLETED RESEARCH IN HEALTH SCIENCES
Texas Woman's University, Denton, Texas

Holden, M. C. Medical students' and nursing students' attitudes toward patients with mental illness,
Ph.D. in Health Education, 1999, 69 pp. (S. Ward).

The purpose of the study was to determine the changes in attitudes about mental illness among nursing and medical students after their first psychiatric clinical rotation in the Dallas Veteran's Affairs Medical Center. Data were collected from 20 nursing students and 23 medical students. Both groups were administered the Attitudes Toward Disabled Persons Scale-B (ATDP-B) before and after their first psychiatric clinical rotation to assess their attitudes about mental illness. Data were collected on this 30-item Likert format scale. A comparison of the pre- and posttest scores was determined using a t-test, which indicated no statistical difference for either group. However, there was a significant difference when comparing the nursing group to the medical students group on attitudes toward mental illness.

TABLE OF CONTENTS

DEDICATION	iii
ACKNOWLEDGMENTS	iv
ABSTRACT	vi
LIST OF TABLES	ix
CHAPTER	
I. INTRODUCTION	1
Purpose	2
Hypotheses	3
Definition of Terms	3
Limitation	5
Delimitations	5
Assumptions	5
Significance of the Study	6
II. LITERATURE REVIEW	8
The Stigma and Resulting Attitudes of Society toward Mental Illness	8
Studies on Attitudes of Medical and Nursing Students toward Mental Illness	14
Implications for Education of Medical and Nursing Students	17
Summary	20
III. METHODOLOGY	22
Population and Sample	22
Protection of Human Subjects	23
Procedures	24
Instrumentation	26
Treatment of the Data	30

IV. FINDINGS	32
Descriptive Characteristics of the Participants	33
Study Findings	34
V. SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS	39
Summary of the Study	39
Summary of Findings	41
Discussion and Conclusions	44
Recommendations	47
REFERENCES	49
APPENDICES	56
APPENDIX A: Human Subjects Committee Approval	58
APPENDIX B: Permission from the Human Subjects Committee at Texas Woman's University	62
APPENDIX C: Graduate School Approval	64
APPENDIX D: Cover Letter for Questionnaire	66
APPENDIX E: Attitude toward Disabled Persons Questionnaire and Demographic Inventory	68

LIST OF TABLES

Table	Page
1. A Comparison of Medical Students' Attitudes toward Mental Illness of Pre- and Posttest Scores	35
2. A Comparison of Nursing Students' Attitudes toward Mental Illness Pre- and Posttest Scores	36
3. A Comparison of Medical Students' versus Nursing Students' Attitudes toward Mental Illness on Pretest Scores	37
4. A Comparison of Medical Students' versus Nursing Students' Attitudes toward Mental Illness on Posttest Scores	37

CHAPTER I

INTRODUCTION

Many clinicians avoid contact with the mentally ill and refer them elsewhere. Many healthcare providers believe that there is little to no satisfaction in treating chronically mentally ill patients and are not optimistic that current treatments are helpful in stabilizing long-term psychiatric illness (Packer, Prendergast, Wasylenki, Toner, & Ali, 1994).

Inherent in the medical and nursing professions is continuous interaction with patients. Through these interactions, attitudes of professionals toward patients are formed. Therefore, knowledge of these attitudes may be useful in determining what these professionals think about their patients. For this reason, the study of medical and nursing students' attitudes toward the mentally ill are important.

Some researchers have found that more contact results in positive change in attitudes (Clarke, 1989; McLaughlin, 1994; Procter & Hafner, 1991; Weller & Grunes, 1988; Wilkinson, 1982). Other researchers found that more

contact can lead to negative attitudes (Kahn, 1976; Murray & Chambers, 1991; Scott & Philip, 1985).

Medical and nursing students are expected to develop attitudes, knowledge, and skills that will equip them to competently manage the care of patients with chronic mental illness. It is essential that healthcare professionals foster positive attitudes that will enable them to render quality care for mentally ill patients with an accepting and respectful attitude.

Minkoff (1987) emphasizes the importance of education and training of new professionals; the development of training curriculum; and reinforcement of the positive aspects of working with the mentally ill as critical in overcoming resistance to working with this population. The challenge ahead is to reach and influence, through effective education, not only healthcare professionals, but also individuals in communities in order to dispel the myths of mental illness and change negative attitudes in the general population.

Purpose

The purpose of this study was to determine the changes in attitudes about mental illness among nursing and medical students after their first psychiatric

clinical rotation in a large Dallas/Fort Worth metroplex medical center. The null hypothesis in this study implies that there is no change in attitudes toward mental illness after medical and nursing students' psychiatric clinical rotation. It is not always the case that medical and nursing students' attitudes change in a positive direction.

Hypotheses

For the purpose of this study, the hypotheses were:

1. There is no significant difference between pre- and post attitudes toward mental illness scores among (a) nursing students and (b) medical students.

2. There is no significant difference in post attitudes toward mental illness scores between medical and nursing students after their psychiatric clinical rotation.

Definition of Terms

For the purpose of this study the definition of terms were as follows:

Medical students--students in their third year of medical school entering their first psychiatric clinical

rotation at the Dallas Veteran's Affairs Medical Center (DVAMC).

Nursing students--students entering their first psychiatric clinical rotation at the Dallas Veteran's Affairs Medical Center.

Attitude--the word "attitude" has numerous definitions. Cascio (1991) defines attitudes as internal states that are focused on particular aspects of objects in the environment. Three elements include cognition, the knowledge one has regarding the focal object of the attitude; the emotion an individual feels toward the focal object; and an action tendency, a readiness to respond in a predetermined way to the focal object. In this study, attitude is a sensitivity toward mentally ill persons as measured by the Attitude Toward Disabled Persons Scale (ATDP).

Mental illness--"Conceptualized as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning), or with a significantly increased risk of suffering death, pain, disability, or an important

loss of freedom" (American Psychiatric Association and Statistical Manual of Mental Disorders, 1994, p. xxi).

Limitation

The following limitation was included in this study:

1. There may be an impact on generalizeability in this sample of convenience.

Delimitations

The following delimitations were included in this study:

1. Only students enrolled in a medical or nursing school, completing their first psychiatric rotation at the Dallas Veteran's Affairs Medical Center participated in this study.

2. Each subject was 18 years or older and was English speaking.

Assumptions

Assumptions of this study were:

1. Attitudes are not innate, but are formed through life experiences.

2. Attitudes can be changed through certain other experiences.

3. Attitudes are complex but can be measured.

4. The medical and nursing students entered their psychiatric clinical rotation with some positive and negative attitudes toward mental illness.

Significance of the Study

Illness, whether physical or mental, is a universal phenomenon which eventually affects most people. Physical illness is generally understood and accepted in society while mental illness is often feared, minimally tolerated, or endured. Alexander and Selesneck, (1966) stated this well when they wrote "The mentally ill have always been with us . . . To be feared, marveled at, laughed at, pitied or tortured but seldom cured. Their existence shakes us to the core of our being, for they make us painfully aware that sanity is a fragile thing" (p. 1). Research has consistently shown that our society holds a negative and rejecting attitude toward the mentally ill (Fink & Tasman, 1992). The media, as well, portrays an inaccurate and unfavorable attitude toward mental illness (Matisoff-Li, 1999). This type of thinking even affects insurance coverage for mental illness. In most instances insurance companies will pay the largest percentage of costs for cardiac, respiratory, and other

medical conditions but historically will only pay for a fraction of mental health costs (Fink & Tasman, 1992).

Research findings suggest that professionals may not be immune to popular attitudes toward mental illness (Arkar & Eker, 1997). Several investigators have pointed out that the attitudes of professional staff toward the mentally ill are equally important and perhaps more important than the attitudes of society and the mass media (Malla & Shaw, 1987).

There have been numerous studies of public attitudes toward mental illness. Relatively few have been focused on the attitudes of healthcare professionals toward the mentally ill (Shera & Deva-Tauiliili, 1996). An understanding of these attitudes could eventually lead to more effective education and training of healthcare professionals (Shera & Deva-Tauiliili, 1996).

CHAPTER II

LITERATURE REVIEW

This literature review includes an overview of the published literature about attitudes of nursing and medical students toward mental illness from 1957 to 1999. The first section of this chapter will present information about the stigma of mental illness which has led to society's attitudes toward mental illness. The next section discusses the problems and implications of medical and nursing students' attitudes toward mental illness. The final section presents an overview of implications for supportive education of nursing and medical students during their first psychiatric clinical rotation.

The Stigma and Resulting Attitudes of Society toward Mental Illness

Primitive societies considered "madness" as "torment by the spirits" (Haber, 1982, p. 20). They tried to cure and prevent contagion by prayerful incantations, exorcisms, and tribal rituals. In some societies, the mentally ill were worshipped as messengers of the gods and isolated in others (Haber, 1982).

During the 5th century B.C., Hippocrates postulated that mental illness was a disturbance of four body humors (or fluids) which resulted from heat, cold, moisture, and dryness. Four corresponding temperaments to classify personalities were derived from this belief: sanguine, choleric, melancholic, and phlegmatic (Haber, 1982).

The term "lunatic" described a person with mental illness during the middle ages. This was due to a belief that the moon influenced a person's mind (Haber, 1982). During the 14th century the mentally ill were believed to be witches and were dealt with by hanging and burning at the stake. By the 17th century, the mentally ill were treated little better than animals; confined to institutions and tortured. Little else was done for the mentally ill until Sigmund Freud's psychoanalytic movement began to have an influence on the treatment of the mentally ill at the turn of this century. New treatment approaches and hope were offered to patients by Freud. The psychoanalytic movement influenced American psychiatry until after World War II. By 1960, mentally ill patients' behavior became more predictable and less frightening to people around them due to the development and effective use of phenothiazines and other major tranquilizers. It was possible to implement an open-door policy in the

large mental institutions and a therapeutic community concept in the hospitals, allowing visits away from the hospital to the community (Haber, 1992).

Public policy has greatly shifted over the last 30 years giving way to large scale deinstitutionalization of residents of psychiatric institutions. This resulted in inadequate community resources and negative community reaction to people with psychiatric disorders (Lyons & Hayes, 1992). There is a general climate of negative community attitudes toward persons with any type of disability. However, the greatest stigma is attached to those conditions in which the person's behavior is perceived as unpredictable or potentially dangerous. Contributing to the fear, social rejection, isolation, and abuse of persons with psychiatric disabilities is the lack of resources allocated to tackling the problem and correcting the widespread misinformation that is rampant in society (Lyons & Hayes, 1992).

The degree of stigmatization faced by those who have a mental illness cannot be overstated. It is pervasive in society, rampant in the media and common within the medical profession. The term "stigma" customarily refers to any attribute, trait, or disorder

that targets a person as being different from normal people in society (Jamison, 1998).

The Greeks used the term "stigma" to refer to bodily clues that had a negative connotation about a person's worth. Today stigma is attached to a person's behavior and does not relate to physical signs (Stuart & Sundeen, 1995). It is difficult to change responses to mental illness when they are irrational and emotionally based. Cumming & Cumming (1957) found that student nurses had a tendency to attribute mental illness to poor heredity or character weakness. Attitudes have changed little since this 1957 landmark study was done on attitudes toward the mentally ill.

Disease per se is not usually thought to be stigmatizing, although there are groups such as sociologists who see disease as a form of deviance because the mere diagnosis identifies an imperfection or problem that must be deferred to expert opinion and advice. This creates pressure for the afflicted person (Scambler, 1998). Diseases that are stigmatizing vary historically and across cultures (Jamison, 1998). Sontag (1978) has argued that different diseases have aroused particular feelings of dread or repulsion during different eras. Presently, in the developed world, Sontag (1978) suggests

that cancer has replaced tuberculosis as a stigmatized disease. Scambler (1998) reports there is more stigma attached to diseases of the mind than of the body.

Psychiatric patients and those who have spent time in psychiatric hospitals may not be as routinely stigmatized today as they have in the past. Cancer patients often feel reluctant to talk about their disease, but the inhibitions resulting from mental illness are undeniably more widespread and deeply rooted with serious consequences to individual patients and their families (Sontag, 1977). Although the legal, medical, and social status of patients has changed over the years, the legacy of stigma is alive and well (Shaw, 1998). James (1998) suggests that the time has come for mental illness to be considered no worse a label than diabetes, heart disease, or any other disease.

Research confirms that the general public holds negative and rejecting attitudes toward mental illness (Socall & Holtgraves, 1992). Wahl (1992) also found an unfavorable and inaccurate presentation of mental illness in the mass media.

Gallagher (1980) charges the media with perpetuating the stigma of mental illness. The psychiatric history of a person who commits a crime is always highlighted

in headlines. Positive achievements of mentally ill people are seldom newsworthy, certainly not in proportion to negative reporting. Rarely would a headline state that a mentally ill person rescued a child from drowning in an icy lake. Films and television also play an integral part in portraying mental illness as a primary cause of violent behavior, leading society to believe the corollary that the mentally ill are always violent.

Riley (1996) describes three elements of attitudes: an affective component (the emotional reactions associated with the attitude object), a cognitive component (the beliefs, facts, and information regarding the attitude object), and a behavioral component (the behaviors associated with the attitude object). Several basic characteristics of attitudes are described by Riley (1996). First, attitudes are inferred from the way individuals behave. Second, attitudes are directed toward a psychological object or category, and third, attitudes are learned. The precursors of attitudes must be studied in order to explain the connection between attitudes and behavior. Attitudes are a function of beliefs (Cascio, 1991). If an attitude is learned, it can be unlearned (Riley, 1996). Generally, one who believes a particular behavior will lead primarily to positive outcomes will

hold a favorable attitude toward that behavior. Conversely, one who believes that the behavior will lead primarily to negative outcomes will hold an unfavorable attitude (Cascio, 1991).

Studies on Attitudes of Medical and Nursing Students toward Mental Illness

Attitudes held by individuals treating mentally ill patients have a strong impact on clinical decision making such as choosing a treatment regimen, the utilization of different treatment modalities, and the development of health education programs. The nature of the doctor-patient and nurse-patient relationship is greatly impacted by those attitudes (Roskin, Carsen, Rabiner, & Lenon, 1986; Meyer, 1973).

Findings in a study by McLaughlin (1997) suggest that contact with mentally ill people does produce change in attitudes and that this change can be positive or negative. One important finding in this study was that classroom theory and contact with the mentally ill can improve attitudes of nursing students. Most of the students in McLaughlin's study (1997) showed improvement in their interpersonal skills and a reduction in fear of mentally ill patients.

A number of studies support the hypothesis that direct contact with the members of a stereotyped group plays a significant role in social acceptance. Attitudes held by the general public, including students, after exposure to mentally ill persons have been investigated by some researchers. Deforges, Lord, Ramsey, Mason, Vanleeuwen, West, and Lepper, 1991; Peterson, 1986; Roman and Floyd, 1981; Trute, Teft, and Segal, 1989 have reported positive changes in attitudes toward the mentally ill through such contact. However, Arkar and Eker, 1992, Furnham and Bower, 1992, Sellick and Goodyear, 1985, have found no exposure effect.

There is a dearth of research studying attitudes of medical and nursing students toward mental illness. Studies have focused on clinician's attitudes toward patients with chronic mental illness. Mirabi, Weiman, Magnetti, and Keppler (1985) surveyed 502 mental health professionals at a symposium to assess their attitudes toward chronic mentally ill patients. They found that 85% agreed that this is not a desirable population to treat. Most participants agreed that there was little satisfaction in treating this group of patients because of lack of optimism that they could be treated successfully. Many of the respondents agreed that most

clinicians avoid contact with such patients and refer them elsewhere. Additionally, most were not optimistic that current treatment modalities were effective in stabilizing long-term psychiatric patients. They reported finding little satisfaction in treating patients with chronic mental illness (Packer et al., 1994).

Koutrelakos and Zarnari (1983) argue that mental health workers' attitudes toward mental illness in general, their expectations regarding the clients they work with, and the extent to which their personal attitudes coincide with the treatment philosophy of their workplace inevitably play integral roles in the success of therapeutic efforts.

Minkoff (1987) documented society's lack of acceptance of mentally ill patients and noted that mental health professionals are not immune to these feelings. An underlying distaste for the bizarre behavior of some patients with chronic mental illness may reflect these feelings. Treatment of patients who frequently relapse, patient's negative attitudes, devaluation of their work by the public, and lack of continuity of care are cited by psychiatrists as the least satisfying aspects of their work (Schwartz & Sorenson, 1981). Packer et al. (1994) found that mentally ill patients often elicited feelings

of anger, anxiety, and dysphoria in the professionals who treat them which were attributed to the dependency and passivity of these patients.

Implications for Education of Medical and Nursing Students

It is time to identify medical and nursing students' attitudes toward the mentally ill. The importance of this is underscored by Minkoff (1987) who says the training of new professionals, the organization of the many specialists who work with the mentally ill, education and training curriculum development, and the identification and fostering the positive aspects of working with the mentally ill as critical in overcoming the significant resistance to working with this population. Research findings strongly suggest that professionals may not be immune to popular attitudes about mental illness (Eker, 1985; Fryer & Cohen, 1988; Gutierrez & Ruiz, 1978; Rabkin, 1979).

In their study, Alexander and Eagles (1990) concluded that, despite the unflattering image of psychiatrists, teaching can be very important in changing this image. This may have a great impact on career choices. The authors state that it is the responsibility of the

teachers of psychiatry to be positive role models for their students in their conduct and attitudes. These authors see the teachers as ambassadors for their specialty. They postulate that there can be a "hidden curriculum" that contributes to what and how students learn. Teachers must be careful not to convey covert messages (Alexander & Eagles, 1990). Shera and Delva-Tauiliili (1996) concluded that a review of curricula was needed to evaluate course content for reflection of positive attitudes that are essential in establishing working relationships with severely mentally ill consumers. Courses designed for working with the mentally ill should assess and address students' attitudes toward this population (Shera & Delva-Tauiliili, 1996). In a report of the results of a national survey of nurses, Arnswald (1987) stated that the reason given by nonpsychiatric hospital-employed nurses for not choosing psychiatry as their preference for employment was a negative undergraduate clinical experience. Slimmer, Wendt, and Martinkus (1990) found that, for effective learning to take place, the most important criterion is the professional competency of the nursing staff and their support of student participation because they are the coordinators of the overall structure of the treatment

program and characteristics of the environment. This is congruent with attitude learning theory which identifies the provision of exemplary role models as a significant factor in attitude development (Klausmeier & Ripple, 1971). The implication here is that quality nursing education is the responsibility of the professional nursing staff as well as the nurse educators (Slimmer, 1990).

Psychiatric medical and nursing students are expected to develop attitudes, knowledge, and skills that will enable them to competently manage the care of patients with chronic mental illness. Routine mechanisms may be used to evaluate this store of knowledge and skills. However, simple assessment mechanisms are inadequate to measure complex concepts such as attitudes and attitude change. Examination of these attitudes is nonetheless important because those attitudes may influence career choices regarding involvement in the care of patients with chronic mental illness (Packer et al., 1994). Mirabi (1994) also found that 68% of the respondents in their survey of mental health professionals believed that most clinicians receive less than adequate training in caring for the mentally ill.

Clinicians whose training was deficient for treating chronic patients may feel helpless, inadequate, and uncomfortable with the complex approach needed to provide comprehensive treatment for such patients. This study seeks to further examine the influence of exposure to psychiatric clinical experiences on the attitudes toward mental illness of medical and nursing students. Specifically, it will attempt to examine the possible influence on the attitudes of nursing and medical students who complete a training program in psychiatry and includes direct patient contact and academic course work.

Summary

Stigma toward mental illness has been a significant issue in society since the beginning of time (Haber, 1982). It incurs a multitude of problems from insurance coverage to housing to employment. Stigma prevents patients from receiving the treatment they need and, at times, from getting treatment at all (Fink & Tasman, 1992). Negative, rejecting public attitudes persist today (Socall & Holtgraves, 1992). The media is a strong influence in perpetuating the stigma of mental illness (Matisoff-Li, 1999). Attitudes held by individuals treating mentally ill patients have a strong impact on

clinical decision making (Roskin et al., 1986). Most significant are attitudes held by specialties, whether it is psychiatry or another specialty particularly since they influence career choice. Although attitudes are determined in a multitude of ways, teachers are in powerful positions to influence students' opinions (Alexander & Eagles, 1990). Students bring predetermined attitudes to their clinical rotations. Therefore, it is important to know what these attitudes are so teachers can address misconceptions and particular areas of influence (Alexander & Eagles, 1990). McLaughlin (1997) found that contact with mentally ill people does produce change that can be either positive or negative.

Minkoff (1987) emphasized society's lack of acceptance of mentally ill patients and noted that mental health professionals are not immune to these feelings. Although psychiatric clinical rotations during medical school training can guarantee exposure to individuals with chronic mental illness, such exposure may reinforce negative attitudes unless careful attention is paid to the nature of the training experience (Packer et al., 1994).

CHAPTER III

METHODOLOGY

The methodology of this descriptive study is discussed in relation to its population, procedures used to sample the population, instruments used to measure the variables, procedures used to collect the data, and statistical techniques that were used to treat the data. In addition, the protection of human subjects is discussed.

Population and Sample

The target population of this study consisted of medical and nursing students enrolled in their first psychiatric clinical rotations at the Dallas Veteran's Affairs Medical Center in Dallas, Texas, during the Spring of 1999. A non-randomized sample of convenience was utilized. The final sample consisted of 23 medical students and 20 nursing students who were eligible and willing to participate in the study. Each participant was 18 years of age or older and was able to read, write, and understand the English language. Only those willing to complete the questionnaire prior to and after their

psychiatric clinical rotations were included in the study. The medical students ranged in age from 21 to 42 years. Nursing students ranged from 21 to 41 years old. Sixty-five percent of the medical students were male and 35% were female. Ninety-five percent of the nursing students were female and 5% were male.

Ethnic groups represented among nursing students in this study included 13 Caucasian, 1 Hispanic, 4 African American, 1 Asian, and 1 American Indian. Among the medical students, 15 were Caucasian, 2 were Hispanic, 2 were African American, and 4 were Asian American.

Protection of Human Subjects

Permission from the Institutional Review Board (IRB), Subcommittee on Human Studies of the Dallas Veteran's Affairs Medical Center (DAVMC) (see Appendix A) was obtained prior to collection of data. Permission from the Human Subjects Review Committee (HSRC) (see Appendix B) at Texas Woman's University (TWU) was also obtained. Finally, approval to conduct the study was granted by the Graduate School at TWU (see Appendix C).

A waiver of consent for participation in this study was obtained from the Institutional Review Board, Subcommittee on Human Studies at the DVAMC because this

research study met the specified criteria (the study was voluntary and no harm would come to those who chose to participate). A cover letter was attached to the questionnaires that included an explanation of the study, the estimated time for completion of the questionnaire, and a reminder that participation was strictly voluntary (see Appendix D). The students retained the cover letter which stated that the researcher would gladly share the results with anyone who requested a copy of the data. Telephone numbers were provided in that letter. A statement was included at the end of the questionnaire also stating that the participant understood that return of the completed questionnaire constituted informed consent to participate as a subject in this research study. Each student completed the Attitudes Toward Disabled Persons (ATDP) Scale-B, both pre- and posttest (see Appendix E). All subjects who completed the pretest also completed the posttest.

Procedures

Before initiation of the study, the following steps were taken. First, the instrument was found in the 1978 edition of The Eighth Mental Measurements Yearbook which cited permission to use the test. The Attitude Toward

Disabled Persons (ATDP) has been widely used since its inception in 1960 and is in the public domain.

Second, the researcher contacted the physician in charge of the medical students' psychiatric education at DVAMC to request his assistance in approaching the medical students. He granted permission without reservation and stated he looked forward to obtaining the results of the study. Full cooperation was also obtained from the TWU faculty person to include the nursing students in this study. The study was conducted following receipt of all approvals.

The first group of students to complete the pretest questionnaire were medical students beginning their psychiatric clinical rotation on January 4, 1999. There were 7 to 10 medical students in each group. The researcher met with them as a group during their orientation, explained the purpose of the study, and reviewed with them the cover letter which was attached to the questionnaire. The researcher was present initially to answer questions. The students were instructed to return their completed questionnaire to the Department of Psychiatry secretary. The secretary returned the completed questionnaires in an envelope to the researcher.

The same format was followed for each subsequent group of medical students with the last group taking their posttest on May 24, 1999.

The first group of nursing students were given the pretest on February 3 during their post-clinical meeting time and a second group participated on February 4. There were 2 groups of nursing students with 10 in each group. Nursing students took their posttest on April 21 and April 22, 1999.

Instrumentation

One instrument and one demographic inventory were used to collect data in the study: (a) The Attitude Toward Disabled Persons Scale, Form B (ATDP) (Yuker, Block, & Young, 1966), and (b) the Demographic Inventory (see Appendix D). The ATDP was used in this study because it has been used extensively over the past 38 years and its validity and reliability have been demonstrated in numerous studies. The ATDP was used in this study to assess medical and nursing students' attitudes toward various aspects of mental illness. A review of the literature revealed that there were three forms of the ATDP scale which were developed in order to provide flexibility and permit the use of scales in prepost

measurement designs. A modification of Yuker's (1966) scale measuring attitudes toward disabled people was used (Form B). The same 30 items were used, but the word "disabled" was changed to "mentally ill people." The scales are Likert-type scales that can be used to measure attitudes toward disabled individuals.

The ATDP lends itself well to modifications, usually to adapt it for a specific purpose. Minor changes in wording, including using specific disability names, have little effect on the reliability or validity of the scales. The most common changes involve substituting a different word for the term "disabled" in order to use the scale to measure attitudes toward specific disabilities (Yuker, 1966).

The term "mental illness" was substituted for the term "disabled" for use in this study. Since their development in the early 1960s these scales have been used in hundreds of research studies, and are considered to be the most used measures of attitudes toward people who are disabled. The ADTP-B can be administered either individually or to groups (Yuker & Block, 1986). According to Fishbein and Ajzen (1975) reliabilities of standardized attitude scales are "generally very high" (p. 108). Yuker and Block (1986) validates the ATDP citing more than

70 different studies indicating that the ATDP is a valid measure of attitudes toward persons who are disabled. The data in these studies indicate the average reliability coefficient of the ATDP scales is close to .80, which is also average for other widely used measures of attitudes.

Subjects respond to each item in the scale by marking their agreement or disagreement of the statement using six categories ranging from strongly agree to strongly disagree as follows:

- +3 I agree very much
- +2 I agree pretty much
- +1 I agree a little
- 1 I disagree a little
- 2 I disagree pretty much
- 3 I disagree very much

There is no neutral category. Total scores can range from -90 to +90. A constant of 90 is added to eliminate negative values. The resulting theoretical score of the ATDP-B can range from 0 to 180. Comparatively low scores indicate negative attitudes (i.e., the student considers mentally ill people different from and inferior to the nondisabled). High scores indicate positive attitudes toward mental illness.

Scoring of the ATDP-B involves 4 steps:

1. Change the sign of items, 1, 3, 4, 6, 7, 10, 12, 13, 22, 26, and 28.
2. Sum the scores, subtracting those with negative signs.
3. Change the sign of the sum.
4. Add a constant of 90 to the sum.
5. The result is the ATDP-B score.

The ATDP-B takes about 15 minutes to complete. In its usual form, which was used in this study, respondents were required to be able to read and write the English language. Individual item responses should not be interpreted. Total ATDP scores are meaningful, responses to individual items are not (Yuker & Block, 1986). Green (1981) states individual item scores on a test often have a low correlation with the total score even when the test is reliable and valid. In the ATDP-B, "as in all Likert-type scales, no absolute interpretation of raw scores is possible since the degree of the attitude expressed by each item is not known" (Yuker & Block, 1986, p. 7) the range of possible scores is 0 - 180.

For scoring the ATDP-B, the monograph by Yuker, Block, and Young (1966) states "it is strongly suggested that each investigator develop his own norms for the

particular group with which he is working" (p. 30). For this study, all scores of 89 and below indicate a negative attitude toward the mentally ill and all scores 90 and above indicate a positive attitude toward mentally ill persons.

The Demographic Inventory, part two of the instrument, was utilized by the researcher to collect demographic information such as age, gender, race, and whether the subject was a medical or nursing student. This inventory was part of the questionnaire following the scale portion of the instrument (see Appendix E).

Treatment of the Data

The study was a one shot, pretest/posttest design. Only those participants who completed each questionnaire and all parts of the study were considered for inclusion in the data analysis of the study.

The study utilized descriptive analysis of the data that included percentages, mean, and standard deviation to determine the normalcy of the data sample. A t -test was utilized to determine acceptance or rejection of null hypothesis 1. A paired t -test was used to measure the difference between medical and nursing students' attitudes toward mental illness. A significance level

of .05 was used on all parametric tests. The Statistical Package Systat version 7.0.1 SPSS Inc. (1997) software program was utilized to analyze the data.

CHAPTER IV

FINDINGS

The purpose of this study was to determine the changes in attitudes about mental illness among and between nursing and medical students after their first psychiatric clinical rotation at the Dallas Veteran's Affairs Medical Center (DVAMC), Dallas, Texas. The descriptive data, statistical analysis of results, and additional findings are reported in this chapter. Data were analyzed using The Systat Version, 7.0.1, SPSS, Inc. (1997) software program to test the study hypotheses. Descriptive analysis of data included the use of percentages, ranges, and standard deviation to determine normalcy of the data sample. A parametric test was utilized for the hypotheses which included a t-test to compare pre- and posttest data for each group. A paired sample t-test was used to determine the difference between medical and nursing students' attitudes toward mental illness. This design consisted of one group of medical students and one group of nursing students and how their attitudes changed following the intervention.

Descriptive Characteristics of the Participants

The participants for this study were recruited between January and April, 1999, from The Dallas Veteran's Affairs Medical Center (DVAMC). The target population for this study was third-year medical students and senior nursing students beginning and completing their first psychiatric clinical rotations at DVAMC. The participants were asked to report their age, gender, and ethnicity and whether they were a medical student or a nursing student. Each participant was 18 years of age or older and all understood the English language. Thirty-seven percent of the participants were male and 63% were female. Forty-three participants completed the entire study and make up the sample for this study.

The final sample of 43 participants who completed both the pre- and posttest ranged in age from 21 to 42 years of age with a mean age of 28.8 years. Ethnicity was represented by 28 white subjects, 3 Hispanics, 6 African Americans, 5 Asians, and 1 American Indian. No participant failed to complete the study due to voluntary withdrawal.

Study Findings

After collecting data on 20 nursing students and 23 medical students, a power analysis revealed the N of 43 was an adequate sample size that would yield meaningful and valid data. Each participant was asked to respond to the Attitude Toward Disabled Persons Scale-B (see Appendix E) which consisted of 30 Likert scale format questions related to their attitudes regarding mentally ill persons. This questionnaire was administered to each participant before and after his/her first psychiatric clinical rotation.

Descriptive data were collected and analyzed to answer the two hypotheses. The hypotheses are listed below followed by the results obtained during the data analysis.

H₀₁: There is no significant difference between pre- and post-attitudes toward mental illness scores among (a) nursing students and (b) medical students.

Attitudes were measured by the Attitudes Toward Disabled Persons Scale-B (ATDP-B) (see Appendix E). Each participant responded to 30 statements based on a Likert scale format. The choices were agree very much, agree pretty much, agree a little, disagree a little, disagree pretty much, disagree very much. The range of possible

scores was 0 - 180. A score of 90, the midway point, was determined to be the cut-off for high and low scores. All scores of 90 and above indicated a positive attitude toward mentally ill persons and all scores at 89 and below indicated a negative attitude toward mentally ill persons. Total scores can range from -90 to +90. A constant of 90 is added to eliminate negative values. The resulting theoretical scores can range from 0 - 180.

Analysis of the medical students' data on the pretest scores (see Table 1) revealed a range of 64 - 120, a mean of 92.48 and a standard deviation of 15.64. Posttest data showed a range of 58 - 125, a mean of 91.61 and a standard deviation of 19.36. The p value was 0.853. The effect was not statistically different.

Table 1

A Comparison of Medical Students' Attitudes toward Mental Illness of Pre- and Posttest Scores

Group	Range	M	SD	SEM	t	p
Pretest	64-120	92.48	15.64	3.26	0.187	0.85
Posttest	58-125	91.61	19.36	4.04		

Analysis of the nursing students' data on the pretest scores (see Table 2) revealed a range of 70 - 128, a mean of 106.40 and a standard deviation of 17.44. On the posttest nursing data, the range was 54 - 125, the mean was 106.10 and the standard deviation was 16.62. The p value was 0.950. The effect was not statistically different.

Table 2

A Comparison of Nursing Students' Attitudes toward Mental Illness Pre- and Posttest Scores

Group	Range	M	SD	SEM	t	p
Pretest	70-128	106.40	17.42	3.90	0.064	0.95
Posttest	54-125	106.10	16.62	3.72		

Ho2: There is no significant difference in post-attitude toward mental illness scores between medical and nursing students.

A comparison of medical students versus nursing students on the pre- and posttest scores are seen in Tables 3 and 4. Comparing the medical students versus the nursing students on attitudes toward mental illness on the pretest, the p value was 0.009. On the posttest, the p value was 0.012. There is a significant difference

between the nursing students and the medical students on attitude toward mental illness both before and after the intervention.

Table 3

A Comparison of Medical Students' versus Nursing Students' Attitudes toward Mental Illness on Pretest Scores

Group	Range	M	SD	SEM	<u>t</u>	<u>p</u>
Medical	64-120	92.48	15.64	3.26	-2.74	0.009
Nursing	70-128	106.40	17.42	3.90		

Table 4

A Comparison of Medical Students' versus Nursing Students' Attitudes toward Mental Illness on Posttest Scores

Group	Range	M	SD	SEM	<u>t</u>	<u>p</u>
Medical	58-125	91.61	19.36	4.04	-2.64	0.012
Nursing	54-125	106.10	16.62	3.72		

Upon completion of the study the null hypothesis 1 was not rejected. Hypothesis 2 was rejected as there was a significant difference in attitudes toward mental illness between the two groups. However, this may not

be too meaningful as they were significantly different on the pretest also.

Assumptions for this statistical analysis included:

1. Normalcy, the data sample were approximately normally distributed. There were no outliers.
2. Randomness, this was violated but the t -test was robust enough to compensate for the violation.
3. Numerical data were used.
4. Dependence, each score was dependent on the first score.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents concluding information that will be introduced under the following headings: (a) Summary of the Study, (b) Summary of the Findings, (c) Summary of Discussion and Conclusions, and (d) Recommendations.

Summary of the Study

The intent of this study was to examine the attitudes of medical and nursing students toward mental illness, whether these attitudes would change following their first psychiatric clinical rotation, and if there was a difference in attitudes between nursing and medical students. The purpose of the study was to determine the changes in attitudes toward mental illness among medical and nursing students completing their first psychiatric clinical rotation at the Dallas Veteran's Affairs Medical Center (DVAMC).

The study took place in Spring, 1999. Forty-three students agreed to take part in the study. All

forty-three eligible participants completed the entire study and made up the sample for this study. Each student completed a pre- and posttest. The pretest was given to each student before his/her first psychiatric clinical rotation at DVAMC. A cover letter explaining the study was attached to the pretest questionnaire. This letter included instructions stating that their participation in the study was strictly voluntary and that the researcher agreed to provide interested participants with a copy of the abstract. Phone numbers were included in the letter for those wishing to get in touch with the researcher to obtain results of the study. The second part of the questionnaire included a section for collection of demographic data and a statement that completion of the questionnaire constituted informed consent to participate as a subject in this research.

The posttest was administered the last day of the students' psychiatric clinical rotation. Descriptive data analysis includes ranges, means, and percentages. A t-test was used to test hypothesis number 1 and a 2-sample t-test was used to test hypothesis number 2.

Summary of Findings

The target population of this study was nursing and medical students enrolled in their first psychiatric clinical rotation at DVAMC. The 43 participants completing the entire study ranged in age from 21 to 42 years with a mean of 28.3 years. The participants included in the study were 63% female and 37% were males.

Each question of the 30-item Attitude Toward Disabled Persons Scale-Form B (ATDP-B) (see Appendix E) asked the participant to respond to questions related to their attitudes toward mental illness. The ATDP-B is a widely used instrument which surveys attitudes toward all disabilities. Yuker and Block (1986) validates the ATDP-B citing more than 70 different studies indicating that the ATDP-B is a valid measure of attitudes toward persons who are disabled. Numerous studies since 1986 have used the ATDP-B. This instrument allows for flexibility in that changing the word "disability" for "mental illness" does not compromise validity and reliability.

Subjects respond to each item in the scale by marking their agreement or disagreement of the statement using 6 categories ranging from agree very much to disagree very much. There is no neutral category. The resulting

total score of the ATDP-B can range from 0 to 180 with 90 being the mid-point. Comparatively low scores indicate negative attitudes, high scores indicate positive attitudes toward mental illness. The questionnaire takes about 15 minutes to complete. Individual item responses are not interpreted. Only total scores are meaningful, responses to individual items are not meaningful. The authors strongly encourage each investigator to develop his/her own norms for the group taking the survey. For this study all scores of 89 and below indicated a negative attitude toward the mentally ill and all scores at 90 and above indicated a positive attitude toward mentally ill persons.

Two hypotheses were tested using the System Version 7.0.1, SPSS, Inc. (1997). Descriptive data were used to analyze demographic information. Data analysis revealed the following:

Ho1: There is no statistically significant difference between pre- and posttest attitudes toward mental illness scores among (a) nursing students and (b) medical students.

Ho2: There is no significant difference in posttest attitude toward mental illness scores between medical and nursing students.

The median on the medical students' pretest was 92.48 (a positive attitude) and 106.4 was the median on the nursing students' pretest. On the medical students' posttest the median was 91.61 and the nursing students' was 106.10. Both groups showed a small decline in positive attitudes toward the mentally ill at the end of their psychiatric clinical rotation. This change could be attributed to numerous variables such as the quality of the individual's clinical experience. Other variables may include the type of facility, the faculty, the hospital staff, or the past experiences each student brought with them.

There was a significant difference in the comparison of attitude toward mental illness scores on the ATDP-B scale between the nursing and medical students. The pretest data revealed a p of 0.009 and posttest scores resulted in a p of 0.012. However, this may not be meaningful because the pretest scores also showed a significance difference.

There was not enough difference in age range to have an effect on the data as the $N = 43$ was too small. Additionally, there was not enough information for ethnicity to make a difference in the results of the data.

Discussion and Conclusions

This was an exploratory study using the Attitudes Toward Disabled Persons Scale-Form B (ATDP-B) developed by Yuker, Block, and Young (1966). This scale has been used in numerous studies for more than 30 years. This study was conducted over a short period of time. No studies were found that measured attitudes toward mental illness in both nursing and medical students as subjects in the same study. Studies were found that used just one or the other group.

Gender may have played a role in describing the relationship between attitudes of medical students versus attitudes of nursing students. The findings in this study suggest that student nurses' attitudes are positive toward mentally ill people which is consistent with literature findings (McLaughlin, 1997). Out of a total of 43 participants, 27 were female. The result that females expressed more positive attitudes toward the mentally ill is consistent with findings from other studies revealing more positive attitudes among females (Alexander & Eagles, 1990; Lyons & Hayes, 1992).

Cross-cultural studies have shown that culture strongly influences attitudes toward mental illness and these attitudes are a reflection of the general values

that exist in each culture (Koutrelakos, 1983).

Koutrelakos et al. (1978) found that the culture of mental health professionals significantly influences attitudes. However, due to the small number of participants, a cultural influence could not be determined in this study.

Contact with mentally ill people produces change in attitudes and change can be positive or negative (McLaughlin, 1997). Both nursing and medical students' attitudes changed from the pretest to the posttest and the change was a slightly less positive attitude toward mental illness at the end of their psychiatric clinical experience. The overall attitudes toward mental illness of both groups were largely positive on both the pre- and posttest.

Attitude surveys often raise more questions than they answer. The origins of a person's attitudes toward mental illness are extremely complex. such attitudes are contingent upon many variables such as early life experiences, family dynamics and teachings, psychological make-up of the individual, social and cultural influences. Moreover, attitudes toward the self may have a significant impact on attitudes toward others. It may be possible to explore such attitudes in a more controlled and systematic fashion.

In conclusion, the present study did not show that psychiatric clinical training, which included course work and direct patient contact, to be effective in improving attitudes of the medical and nursing students toward mental illness and the mentally ill. The type of contact that is beneficial should be investigated through a more analytical approach that focuses on the specific features of experience with mentally ill patients. Future research should be designed to study the interactions among factors and may include the type of contact such as: informal versus formal interaction, the type and severity of the patients' illnesses, the type of environment such as whether the student's experience related to a specific site, and the perception of staff support of student learning.

Chappel and Veach (1987) believe that the effect of negative attitudes on patient care is unknown. However, the time, interest, and attention that is provided to patients is compromised when the attitudes of caregivers are negative (Chappel & Veach, 1987). Also, contact with patients can decrease or strengthen attitudes toward mentally ill persons. Because the attitudes of nurses and physicians working in mental health settings may

influence the quality of care for patients, it is important that this subject be further researched.

There are implications here for health educators to play a role in the education of nursing and medical students. The quality of patient care improves when health care providers work together for the good of the patients. Nursing and medical students have many educational commonalities. Traditionally, the two groups have had totally separate curricula. A health educator, as a liaison, could help to bridge the gap to help both groups work toward a more cohesive collegial relationship.

Recommendations

The following recommendations are made for future investigators:

1. It may be beneficial to expand this study to include questions that would yield qualitative data such as the student's satisfaction with the facility, the type of patients they encountered, the effectiveness of teaching methods, and the supportiveness of hospital staff.
2. Replicate this study using a larger sample size that will produce more meaningful data.

3. Collecting data over a longer period of time may yield a better understanding of problems that may exist in the facility that could result in a less than adequate experience.

4. Additional studies using nursing and medical students could facilitate collaboration between nursing and medicine by coordinating the student's learning experiences so as to enhance collegiality among the disciplines.

Further work is needed to identify and clarify the evolution of attitudes during the training of medical and nursing students and to develop and refine strategies to maximize a positive view of the practice of psychiatry.

REFERENCES

Alexander, D. A., & Eagles, J. M. (1990). Changes in attitudes towards psychiatry among medical students: Correlation of attitude shift with academic performance. Medical Ed., 24, 452-460.

Alexander, F. G., & Selesnick, S. T. (1966). The history of psychiatry: Evaluation of psychiatric thought and practice from prehistoric times to the present. New York: Harper & Row.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Arkar, H., & Eker, D. (1997). Influence of a 3-week psychiatric training programme on attitudes toward mental illness in medical schools. Soc. Psychiatry Psychiatr Epidemiol, 32, 171-176.

Arkar, H., & Eker, D. (1992). Influences of having a hospitalized mentally ill member in the family on attitudes toward mental patients in Turkey. Soc. Psychiatry Psychiatr Epidemiol, 27, 151-155.

Arker, H., & Eker, D. (1991). Experienced Turkish nurses' attitudes toward mental illness and the predictor variables of their attitudes. Int J. Soc. Psychiatry, 37, 214-222.

Arnsward, L. (1987). Not fade away. Journal of Psychosocial Nursing, 25, 31-33.

Buros, O. K. (Ed.). (1978). Tests and reviews: Personality. The 8th Mental Measurement Yearbook (vol. 1). Highland Park, NJ: Gryphon Press.

Cascio, W. F. (1991). The financial impact of employee attitudes. Costing human resources: The financial impact of behavior in organizations (3rd ed., pp. 130-149). Boston, MA: PWS-Kent Publishing Company.

Chappel, J. N., & Veach, T. L. (1987). Effect of a course on students' attitudes toward substance abuse and its treatment. Journal of Medical Education, 62, 394-400.

Clarke, L. (1989). The effects of training and social orientation on attitudes toward psychiatric patients. Journal of Advanced Nursing, 14, 485-493.

Cumming, E., & Cumming, J. (1957). Closed ranks: An experiment in mental health ed. Cambridge, MA: Harvard University Press.

Desforges, D., Lord, C., Ramsey, S., Mason, J., Vanleeuwen, West, S., & Lepper, M. (1991). Effects of structured cooperative contact on changing negative attitudes toward stigmatized social groups. Journal of Personality and Social Psychology, 60(4), 531-544.

Eker, D. (1985). Attitudes of Turkish and American clinicians and Turkish psychology students toward mental patients. International Journal Soc. Psychiatry, 31, 223-229.

Fink, P., & Tasman, A. (1992). Stigma and mental illness. Washington, DC: American Psychiatric Press, Inc.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior. Reading, MA: Addison-Wesley.

Fryer, J. H., & Cohen, I. (1988). Effects of labeling patients "psychiatric" or "medical": Favorability of traits ascribed by hospital staff. Psychology Rep, 62, 779-793.

Furnham, A., & Bower, P. (1992). A comparison of academic and lay theories of schizophrenia. Br. J. Psychiatry, 161, 201-210.

Gallagher, B. J., III. (1980). The sociology of mental illness. Englewood Cliffs, NJ: Prentice Hall.

Green, B. F. (1981). A primer of testing. American Psychologist, 36, 1001-1011.

Greenley, J. R. (1984). Social factors, mental illness, and psychiatric care: Recent advances from a sociological perspective. Hosp. Community Psychiatry, 35, 813-820.

Gutierrez, J. L., & Ruiz, J. S. (1978). A comparative of the psychiatric nurses' attitudes toward mental patients. Int. J Soc Psychiatry, 24.

Haber, J. (1982). Comprehensive psychiatric nursing (3rd ed. pp. 20-22). New York: McGraw Hill.

Haber, J., McMahon, A., Price-Hoskins, P., & Sideleau, B. (1992). Comprehensive psychiatric nursing (4th ed, pp. 752-753). St. Louis: Mosby Year Book.

James, A. (1998). Forward. The Lancet, 352, 1048.

Jamison, K. R. (1998). Stigma of manic depression: A psychologist's experience. The Lancet, 352, 1053.

Kahn, A. M. (1976). Relationship between nurses' opinions about mental illness and experience. Nursing Research, 25, 136-139.

Klausmeier, H., & Ripple, R. (1971). Learning and human abilities. New York: Harper and Row.

Koutrelakos, J., & Zarvari, O. (1983). Opinions about mental illness: A comparison of American and Greek work students. Psychological Reports, 53, 71-80.

Koutrelakos, J., Gedeon, S. M., & Streuning, E. L. (1978). About mental illness and comparison of American and Greek professionals and layman. Psychology Res., 43, 915-923.

Lyons, M., & Hayes, R. (1992). Student perceptions of persons with psychiatric and other disorders. The American Journal of Occupational Therapy, 47, 541-546.

Malla, A., & Shaw, T. (1987). Attitudes toward mental illness: the influence of education and experience. Int J Soc Psychiatry, 33, 33-41.

Matisoff-Li, A. (1999, March 15). Media and madness: confronting negative images of mental illness. Health Week, 21.

McLaughlin, C. (1997). The effect of classroom theory and contact with patients on the attitudes of student nurses toward mentally ill people. Journal of Advanced Nursing, 26, 1221-1228.

McLaughlin, C. (1994). Casualty nurses' attitudes to attempted suicide. Journal of Advanced Nursing, 16, 1111-1118.

Meyer, L. M. (1973). Comparison of attitudes toward mental patients of junior and senior nursing students and their university peers. Nursing Research, 22, 242-246.

Minkoff, K. (1987). Resistance of mental health professionals to working with the chronic mentally ill. In A. T. Meyerson (Ed.), Barriers to treating the chronic mentally ill (pp. 3-20). New Directions in Mental Health Services, No. 33. San Francisco: Jossey-Bass.

Mirabi, M., Weiman, M. L., Magnetti, S. M., & Keppler, K. N. (1985). Professional attitudes toward the chronic mentally ill. Hospital and Community Psychiatry, 36, 404-405.

Murray, M., & Chambers, M. (1991). Effect of contact on nursing students' attitudes to patients. Nurse Education Today, 11, 363-367.

O'Mahoney, P. D. (1979). An investigation of change in medical students' conceptualizations of psychiatric patients due to a short training course in psychiatry. Medical Education, 13, 103-110.

Ozer, D. J. (1985). Correlation and the coefficient of determination. Psychological Bulletin, 97, 307-315.

Packer, S., Prendergast, P., Wasylenki, D., Toner, B., & Ali, A. (1994). Psychiatric residents' attitudes toward patients with chronic mental illness. Hospital and Community Psychiatry, 45, 1117-1121.

Peterson, C. L. (1986). Changing community attitudes toward the chronic mentally ill through a psychosocial program. Hospital and Community Psychiatry, 37, 180-182.

Procter, N., & Hafner, J. (1991). Student nurses' attitudes to psychiatry: The influence of training and personality. Journal of Advanced Nursing, 16, 845-849.

Rabkin, J. (1972). Opinions about mental illness: A review of the literature. Psychol. Bull., 77, 153-171.

Rabkin, J. (1975). The role of attitudes toward mental illness in evaluation of mental health programs. In M. Guttentag & E. L. Struening (Eds.), Handbook of evaluation research (vol 2, pp. 431-481). Beverly Hills: Sage Publications.

Rabkin, J. (1979). Who is called mentally ill: Public and professional views. Journal of Community Psychology, 7, 253-258.

Rahav, M., Struening, E. L., & Andrews, H. (1984). Opinions on mental illness in Israel. Soc. Sci. Med., 19, 1151-1158.

Riley, A. J. (1996). Perceived carer attitudes to alcohol dependent patients. Nursing Standard, 10(27), 37-42.

Roman, P. M., & Floyd, H. H. (1981). Social acceptance of psychiatric illness and psychiatric treatment. Soc Psychiatry, 16, 21-29.

Roskin, G., Carsen, M. L., Rabiner, C. J., & Lenon, P. A. (1986). Attitudes toward patients. Journal of Psychiatric Education, 10, 40-49.

Scambler, G. (1998). Stigma and disease: Changing paradigms. The Lancet, 352, 1054-1055.

Schwartz, S., Krieger, M., & Sorensen, J. (1981). Preliminary survey of therapists who work with chronic patients: Implications for training. Hospital and Community Psychiatry, 32, 799-800.

Scott, D., & Phillips, A. (1985). Attitudes of psychiatric nurses to treatment and patients. British Journal of Medical Psychology, 58(58), 169-173.

Sellick, K., & Goodyear, J. (1985). Community attitudes toward mental illness: The influence of contact and demographic variables. Australian, N Z J. Psychiatry, 19, 293-298.

Shera, W., & Delva-Tauiliili, J. (1996). Changing MSW students' attitudes toward the severely mentally ill. Community Mental Health Journal, 32, 159-169.

Shaw, F. (1998). Mistaken identity. The Lancet, 352, 1050-1051.

Slimmer, L. W., Wendt, A., & Martinkus, D. (1990). Effect of psychiatric clinical learning site on nursing students' attitudes toward mental illness and psychiatric nursing. Journal of Nursing Education, 29, 127-133.

Socall, D. W., & Holtgraves, T. (1992). Attitudes toward the mentally ill: The effects of label and beliefs. Social Q, 33, 435-445.

Sontag, S. (1978). Illness as metaphor. New York: Farrar, Straus, & Giroux.

SPSS. (1997). The Systat Version, 7.0.1.

Stuart, G. W., & Sundeen, S. J. (1983). Principles and practice of psychiatric nursing. St. Louis: The C. V. Mosby Co.

Stuart, G., & Sundeen, S. (1995). Principles and practice of psychiatric nursing. St. Louis: The C. V. Mosby Co.

Trute, B., Tefft, B., & Segall, B. (1989). Social rejection of the mentally ill: A replication study of public attitude. Soc Psychiatry Psychiatr Epidemiol, 24, 69-76.

Wahl, O. F. (1992). Mass media images of mental illness: A review of the literature. J Community Psychol, 20, 443-452.

Weller, L., & Grunes, S. (1988). Does contact with the mentally ill affect nurses' attitudes to mental illness? British Journal of Medical Psychology, 61, 277-284.

Werbach, G. B., & DePoy, E. (1993). Social work students' interest in working with persons with serious mental illness. Journal of Social Work Education, 19, 200-211.

Wilkinson, D. (1982). The effects of brief psychiatric training on the attitudes of general nursing students to psychiatric patients. Journal of Advanced Nursing, 7(3), 239-253.

Yuker, H. E., Block, J. R., & Young, J. H. (1966). The measurement of attitudes toward disabled persons. Human Resources Study No. 7. Albertson, NY: Human Resources Center.

Yuker, H. E., & Block, J. R. (1986). Research with the attitude toward disabled persons scale (ATDP). Hempstead, NY: Center for the Study of Attitudes Toward Persons with Disabilities.

APPENDICES

APPENDIX A

Human Subjects Committee Approvals

**Department of
Veterans Affairs****Memorandum**

Date: 10-8-98

From: Marian Holden, MSRN, CS

MAL

Subj: Request waiver of informed consent

To: Guna Raj, M. D.
Chairperson, Human Studies Committee

Through: Janice Pontutti
Research Coordinator

This is to request waiver of informed consent .

I am a doctoral candidate at Texas Woman's University, working on completing my dissertation entitled, "Attitudes of medical and nursing students toward mental illness." The attached Likert Scale questionnaire will be used as a pre and posttest instrument to measure attitudes of medical and nursing students toward mental illness before and after their psychiatric clinical rotation at the Dallas Veterans Affairs Medical Center. Attached is a cover letter that will accompany the questionnaire.

Thank you for your consideration.

Department of
Veterans Affairs

Memorandum

November 4, 1998

Associate Chief of Staff for Education (141)

Request for wavier of informed consent

Marian Holden, RN MSN (118)

1. Your request for a waiver of information consent for your dissertation, "Attitudes of medical and nursing students toward mental illness," has been reviewed. Dr. Raj, Chairperson, Human Studies Committee, and I, as Chairperson of the Graduate Studies Committee, are recommending a waiver from the Human Studies Committee. We are both in agreement your research project meets the criteria for waiver as participation is voluntary and no harm will come to those who choose to participate.

2. As with all studies conducted at the VANTHCS, we request a summary of the findings. Good luck with your endeavor. If I can be of further assistance, please do not hesitate to call me.


Gail Bentley, Ph.D., RN

**Department of
Veterans Affairs****Memorandum**

Date: December 11, 1998

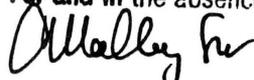
From: Chair, Subcommittee on Human Studies (151)

Subj: Waiver of Consent

To: Marian Holden, RN, MSN (118)

We have received and reviewed the research protocol entitled "Attitudes of Medical and Nursing Students Toward Mental Illness", and have granted waiver of consent form.

For and in the absence of:



Guna Raj, M.D.

APPENDIX B

Permission from the Human Subjects Committee
at Texas Woman's University

████████████████████

TEXAS WOMAN'S
UNIVERSITY
DENTON / DALLAS / HOUSTON

HUMAN SUBJECTS
REVIEW COMMITTEE
P.O. Box 425619
Denton, TX 76204-5619
Phone: 940/898-3377
Fax: 940/898-3416

December 15, 1998

Ms. Marian Holden
1516 High Pointe Lane
Cedar Hill, TX 75104

Dear Ms. Holden:

Your study entitled "Attitudes of Medical and Nursing Students Toward Mental Illness" has been reviewed by a committee of the Human Subjects Review Committee and appears to meet our requirements in regard to protection of individuals' rights.

Be reminded that both the University and the Department of Health and Human Services (HHS) regulations typically require that agency approval letters and signatures indicating informed consent be obtained from all human subjects in your study. **These consent forms and agency approval letters are to be filed with the Human Subjects Review Committee at the completion of the study. However, because you do not utilize a signed consent form for your study, the filing of signatures of subjects with the Human Subjects Review Committee is not required.**

Your study was determined to be exempt from further TWU HSRC review. However, another review by the Committee is required if your project changes. If you have any questions, please feel free to call the Human Subjects Review Committee at the phone number listed above.

Sincerely,



Chair
Human Subjects Review Committee

cc. Graduate School
✓ Dr. Susan Ward, Department of Health Studies

APPENDIX C

Graduate School Approval

TEXAS WOMAN'S
UNIVERSITY
DENTON/DALLAS/HOUSTON

THE GRADUATE SCHOOL
P.O. Box 425649
Denton, TX 76204-5649
Phone: 940/898-3400
Fax: 940/898-3412

February 12, 1999

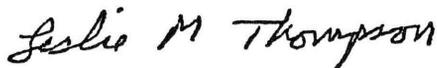
Ms. Marian C. Holden
1516 High Pointe Ln.
Cedar Hill, Tx 75104

Dear Ms. Holden:

I have received and approved the prospectus entitled "**Medical Students' and Nursing Students' Attitudes Toward Patients with Mental Illness**" for your *Dissertation* research project.

Best wishes to you in the research and writing of your project.

Sincerely yours,



Leslie M. Thompson
Associate Vice President for Research and
Dean of the Graduate School

LMT/sgm

cc Dr. Susan Ward, Health Studies

APPENDIX D

Cover Letter for Questionnaire

October 15, 1998

Marian C. Holden, MSRN, CS
Clinical Nurse Specialist
Mental Health Service, Blue Team
Dallas V. A. Medical Center
Dallas, Texas 75216

Dear Student:

I am a doctoral candidate at Texas Woman's University, School of Health Sciences, conducting a research study to meet requirements for my dissertation. The purpose of this study is to determine the changes in attitudes toward mental illness among medical and nursing students after their psychiatric clinical rotation at the Dallas Veterans Affairs Medical Center.

The questionnaire is a 30-item Likert scale which takes approximately fifteen minutes or less to complete. All data will be coded to ensure confidentiality and requires no identifying items. It is a 2-part questionnaire. The first section is the ATDP-B, the second 5 questions are for demographics. Participation in this study is completely voluntary.

Thank you for your kind consideration and participation in my study. I will gladly share the results with anyone who is interested in the data. I can be reached at DVAMC, 214-857-70059.

Sincerely,

Marian Holden

APPENDIX E

Attitude toward Disabled Persons
Questionnaire and Demographic Inventory

ATTITUDES TOWARD DISABLED PERSONS
SCALE B

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3: or -1, -2, -3: depending on how you feel in each case.

+3: I Agree Much

+2: I Agree Pretty Much

+1: I Agree A Little

-3: I Disagree A Little

-2: I Disagree Pretty Much

-1: I Disagree Very Much

- _____ 1. Mentally ill persons are usually friendly.
- _____ 2. People who are mentally ill should not have to pay income taxes.
- _____ 3. Mentally ill people are not more emotional than other people.
- _____ 4. Mentally ill persons can have a normal social life.
- _____ 5. Most mentally ill persons have a chip on their shoulder.
- _____ 6. Mentally ill workers can be as successful as other workers.
- _____ 7. Very few mentally ill persons are ashamed of their disabilities.
- _____ 8. Most people feel uncomfortable when they associate with mentally ill people.
- _____ 9. Mentally ill people show less enthusiasm than nonmentally ill people.
- _____ 10. Mentally ill people do not become upset any more than nonmentally ill people.
- _____ 11. Mentally ill people are often less aggressive than normal people.
- _____ 12. Most mentally ill persons get married and have children.
- _____ 13. Most mentally ill persons do not worry more than anyone else.
- _____ 14. Employers should not be able to fire mentally ill people.
- _____ 15. Mentally ill people are not as happy as nonmentally ill ones.
- _____ 16. Severely mentally ill people are harder to get along with than are those with minor mental illness.
- _____ 17. Most mentally ill people expect special treatment.
- _____ 18. Mentally ill people should not expect to lead normal lives.
- _____ 19. Most mentally ill people tend to get discouraged easily.
- _____ 20. The worst thing that could happen to a person would be for him to be severely mentally ill.
- _____ 21. Mentally ill children should not have to compete with nonmentally ill children.
- _____ 22. Most mentally ill people do not feel sorry for themselves.

- _____ 23. Most mentally ill people prefer to work with other mentally ill people.
- _____ 24. Most severely mentally ill persons are not as ambitious as other people
- _____ 25. Mentally ill persons are not self-confident as mentally normal persons.
- _____ 26. Most mentally ill persons don't want more affection and praise than other people.
- _____ 27. It would be best if a mentally ill person would marry another mentally ill person.
- _____ 28. Most mentally ill persons do not need special attention.
- _____ 29. Mentally ill persons want sympathy more than other people.
- _____ 30. Most mentally ill persons have different personalities than normal people.

Please complete the following information: (check one)

31. M _____ F _____
32. Age _____
33. Ethnic Origin White __, Hispanic __, Black __, Asian __,
American Indian __,
34. Religion Protestant __, Catholic __, Jewish __, Other _____,
None __.
35. Nursing student _____, Medical student _____.

I understand that return of my completed questionnaire constitutes my informed consent to participate as a subject in this research.