Community Mental Health Attitudes

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COMMUNITY MENTAL HEALTH ATTITUDES

by

Fenimore William Johnson

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Psychology

Western Michigan University
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The purpose of this study was to compare community mental health attitudes of the past and the present, and between mental health workers and the public. The results indicate that the public is better informed and more favorably disposed toward the mentally ill today than was true several decades ago. Some stereotypes persist, however, and the mentally ill are still regarded less favorably than are other disability groups. Mental health workers and the public appear to be similar in their endorsement of a medical approach to treatment, although the former endorse more strongly a community-based treatment orientation. There was no relationship found between the acceptance of a psychosocial rather than a medical model and the expression of helplessness or dependency in dealing with mental health problems. A demythologizing approach to changing attitudes toward a more psychosocial orientation did not prove to be effective.
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ACKNOWLEDGEMENTS

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INTRODUCTION

The Problem and Its Background

The move toward community-based mental health care services in North America has led to increasing interest in assessing public beliefs and attitudes concerning the mentally ill. As Rabkin (1975) has noted in an extensive review of the literature, the recipients of such services, and those who deal with them, exist in the larger context of society. Therefore, in both planning and implementing treatment programs, it is imperative to be aware of the attitudes toward mental illness and toward the various treatment approaches that prevail in this larger framework. Even though the relationship between public attitudes and actual behavior with respect to the mentally ill has yet to be clarified, such attitudes are probably associated with the legal and economic conditions that determine the therapeutic options available to patients in a given society, and therefore may be of interest to behavioral scientists in their own right.

A number of questions may be asked with respect to community mental health attitudes. What are the content and the potency of such attitudes in North America today? How would these findings compare with those of twenty or
thirty years ago? What would be the implications of such a comparison for evaluating past attempts to educate the public in the area of mental health problems? If community education efforts can be successful in changing mental health attitudes, what would be the ideal content of such a campaign; that is, what is really known about mental illness and its treatment? Finally, what does a study of verbally expressed attitudes tell us about how members of a community will actually treat its mentally ill in everyday life situations?

Public attitudes toward mental illness have been systematically evaluated over the past three decades. By 1960 it seemed clear that mental illness was feared by the public, and those labeled as mentally ill were disliked and avoided by most people (Nunnally, 1961). The public was less quick than mental health professionals to label given acts of social deviance as mental illness (Star, 1952), but once this label had been officially assigned, rejection was swift and certain. Even before 1960 the awareness of the stigma attached to mental illness had led to community education efforts aimed at communicating the prevailing mental health ideology to the public. These efforts were based on a medical model which promoted the idea that mental illness was an illness like any other (Rabkin, 1972).

Studies undertaken since the 1960s have reliably
demonstrated increasing public sensitivity to mental health issues, in terms of a greater readiness to identify different examples of deviance as mental illness and a stronger endorsement of a medical model, and in terms of advocating less social distance between community members and their mentally ill (e.g., Crocetti and Lemkau, 1963). These changes have not been universally regarded in a positive light (e.g., Phillips, 1967). Some experts have objected to the entire notion of mental "illness" and have cited the dangers they believe to be inherent in continuing to promote this "myth" (e.g., Szasz, 1961; Sarbin and Mancuso, 1970). They point to the discrepancy between what the public is being taught and the more psychosocial orientation of contemporary mental health professionals.

Rabkin (1975) has criticized past studies for presenting only simple response percentages on various questionnaire items, and has made a number of recommendations for future research in the area of public mental health attitudes. She has suggested that mental health education campaigns are more likely to influence only those components of attitudes associated with exposure to information, such as the belief about psychiatric ideologies, and to have relatively little effect on those components associated with underlying personality characteristics, such as authoritarianism.
Also, some attitudinal components are likely to be more closely associated with propensities for action than are others. She has endorsed a multivariate research design as the most appropriate way to study the actions and interactions of attitudinal and behavioral variables.

In advocating more attention to the behavioral correlates of attitudes toward mental illness, and placing greater emphasis on using a multiple-act rather than a single-act criterion in search of such relationships, Rabkin (1975) has been critical of small-scale classroom or laboratory studies, favoring a more epidemiological approach to behavioral research in this area. She has proposed that selected geographical communities be compared in terms of both attitudes and the availability of psychiatric treatment alternatives to determine the magnitude and direction of any existing correlation. Even then it would still be necessary to determine whether certain attitudes lead to greater or fewer treatment options, whether availability of services can positively or negatively affect community attitudes, or both.

In this paper an attempt will be made to review the recent literature in light of the criticisms and recommendations mentioned above, and to present original research findings in the areas of community mental health attitudes and strategies for attitude change. Several

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different questionnaires from earlier studies have been combined and adapted to allow for more general comparisons with previous findings. Attitudes expressed by the public are compared with those endorsed by mental health professionals. An attempt is made to test the efficacy of the different instruments in detecting attitude change as the result of educational intervention. Finally, an attempt is made to relate general attitudes to specific inclinations, and to relate both of these to changes in overt behavior.

A Review of the Literature

Several instruments were commonly employed to study mental health attitudes in the 1950s and 1960s. The Star (1952) vignettes are case stories that can be identified or ranked in terms of evident psychopathology. Gilbert and Levinson's (1957) Custodial Mental Illness Ideology Scale (CMI) consists of opinion statements that place respondents on a continuum of treatment versus custodial orientation. Osgood, Suci, and Tannenbaum's (1957) Semantic Differential is made up of many bipolar dimensions that can be rated on a multi-point scale for different mental health concepts. Whatley's (1958) adaptations of Bogardus' (1933) Social Distance Scales consist of ordered statements varying along a continuum of social interaction, the level of which is selected by

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the respondent for a given concept. Nunnally's (1961) Information Questionnaire is made up of statements designed to elicit information as well as attitudes in terms of ten factors relating to mental health stereotypy. Cohen and Struening's (1962) Opinions About Mental Illness scales, considered the most reliable and valid instrument of that time, was adapted from the Information Questionnaire, The CMI, and the California F Scale, to provide scores on five separate attitudinal factors. Baker and Schulberg's (1967) Community Mental Health Ideology Scale covers an attitude not emphasized by previous instruments, endorsement of a community mental health versus a traditional inpatient treatment ideology.

The limitations that have been found with some of the instruments described above have led to the more recent development of several new tools. Morrison and Becker's (1975) Client Attitude Questionnaire consists of items designed to measure whether attitudes reflect more of a psychosocial or a medical model view of mental illness, and was designed specifically to study attitude change, as a result of educative "demythologizing" seminars. Fisher and Farina's (1979) Beliefs About the Nature of Mental Disorders (BANMD) questionnaire also is designed to assess the effects of changing public conceptions of mental illness along a biosocial versus
social-learning continuum, but additionally seeks to establish correlations with behavior, or, at least, with behavioral intentions. Taylor and Dear's (1981) Community Attitudes Toward the Mentally Ill (CAMI) was adapted from the OMI and CMHI scales, but was designed to be more oriented to measuring community attitudes than those of mental health professionals. Finally, Johnson and Beditz's (1981) Community Acceptance Scale was developed to discriminate between "passive" and "active" acceptance, and between former and current mental patients.

The following is a brief review of the development, application, and evaluation of some of the research tools introduced above. A more technical discussion of the instruments used in the present study is deferred to the Methods section of this paper.

The Clinical Vignettes

The now classical procedure of having subjects review hypothetical case histories for indicators of mental illness was employed by Lemkau and Crocetti (1962) with results suggesting that popular attitudes toward mental illness and the mentally ill are changing in North America. This conclusion was based primarily on a comparison of the results they had obtained in a 1960 Baltimore study with more pessimistic findings obtained a
number of years earlier by Cumming and Cumming (1957) in a small Canadian town named Blackfoot. Large differences were noted, with the Baltimore respondents appearing to be fairly well informed about mental illness and the mentally ill, and expressing sentiments of understanding and tolerance, while the Blackfoot residents showed a response pattern of denial of mental health problems and rejection of the mentally ill. The need for more precise replication was cited by Lemkau and Crocetti (1962). The two samples were not only from different countries, but one was a major urban center in a highly industrialized area, while the other was a tiny, agricultural, rural community. Even a comparison of the Baltimore study with an earlier American study by Star (1952) did not resolve this issue, as her national sample, more representative of the country as a whole, might easily have obscured any rural-urban differences.

The results from a series of studies by Phillips seemed to point in the opposite direction of those from Lemkau and Crocetti. In two early studies (Phillips, 1963, 1964), a significant relationship was found between the help source sought and the extent of rejection that was manifest, at least with psychiatrically-naive subjects. The choice of labels was also an important determinant of rejection for such samples. A later adaptation of the Clinical Vignette methodology showed
that the inclusion of a simple reference to previous hospitalization led to greater stigmatization of the individual described in the case study (Phillips, 1966). A subsequent study (Phillips, 1967) confirmed that the ability to correctly identify cases of mental illness is associated with rejection of the individuals so labeled.

In another attempt to replicate the study by the Cummings (1957), Rootman and Lafave (1969) surveyed a Canadian town, Saltwater, which was demographically similar to Blackwater. They used an interview format and items similar to those employed in the Baltimore study. Respondents were asked to rank the desirability of five diseases, of which mental illness was one. Three case stories were presented (a paranoid schizophrenic, an alcoholic, and a simple schizophrenic), followed by several questions about them, along with additional questions to measure "enlightenment," and five social distance items. Concerning knowledge about mental illness, the Saltwater sample showed an ability to identify examples of mental illness which was comparable to the results of the Baltimore study and was superior to that of the respondents from the National and Blackfoot studies. Comparison of the studies in terms of response to social distance items reinforced the conclusion that change had taken place. Compared to the Baltimore study, the respondents from Saltwater gave an even higher

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The comparison of Blackfoot with its then contemporary counterpart provided some evidence that Lemkau and Crocetti's inference that attitudes are changing was essentially correct. Their conclusion was based, however, on a comparison of two rural, Canadian communities, and generalization to urban, American society certainly had to be undertaken with caution. Even presuming that there had been significant changes in verbally expressed attitudes toward the mentally ill in North America, it was still necessary to determine what these changes really meant in terms of the manner in which our society deals with mental illness and the mentally ill. The complex but important relationship that exists between verbally expressed attitudes and actual behavior still needed attention. There is not necessarily a direct relationship between what people say and what they do. In one comparison of two communities in terms of attitudes and knowledge about mental illness (Lafave, Rootman, Sydiaha, and Duckworth, 1967), it was found that the more "enlightened" and "sophisticated" community manifested less tolerant behavior toward its mentally ill, by one third of its members voting to reject the establishment of a community treatment facility for previously hospitalized residents.

Fletcher (1969) surveyed research employing
hypothetical case descriptions of emotionally disturbed behavior, administered to lay persons, to measure their responses to deviant behavior. The procedure was refined by holding constant a number of potentially influential attributes, while permitting only one to vary. This variable was the aggressive-withdrawal dimension of interpersonal behavior. A survey using this procedure showed psychiatric referral rates of approximately 20%, with little social class difference in responding. Female respondents showed a greater tendency to refer the withdrawn case, rather than the aggressive case. This design was thought to hold promise for better understanding the determinants of the public's decision to refer someone for psychiatric help.

D'Arcy and Brockman (1976) actually resurveyed residents of the same Canadian town studied by Cumming and Cumming (1957). The results from 104 subjects were observed to be quite similar to those of the original study, and appeared to stand in contrast to evidence from more recent investigations which indicate that public recognition of mental illness has significantly improved. A few changes were noted, however, in terms of increased attribution of psychiatric symptoms to the juvenile character disorder and the alcoholic vignettes employed in that study. The researchers urged a more critical appraisal of methodological and theoretical problems that
can make generalization from earlier studies sometimes inappropriate.

In an investigation by Murthy and Arora (1976), 20 male postgraduate medical students were administered, before and after their psychiatric training, 14 standardized vignettes constructed to study attitudes toward the mentally ill. Responses of the subjects were compared in terms of their diagnostic ability, the diagnosed seriousness of the problem, social distance, and willingness to assign responsibility. Results indicated that a change in attitudes toward the mentally ill does not necessarily follow increased diagnostic and treatment ability. These results were discussed in terms of their implications for changes in psychiatric training programs.

The Semantic Differential

To assess public attitudes about mental illness, Nunnally (1961) employed a Semantic Differential with a 7-point rating scale. He examined the extent to which the mentally ill were held in low esteem, the differential attitudes toward different types of mental illness, and the correlation between attitudes and certain demographic characteristics. The bipolar scales were factored in terms of the following dimensions: evaluation (e.g., good-bad, valuable-worthless), potency (e.g.,
weak-strong, rugged-delicate), activity (e.g., active-passive, fast-slow), and understandability (e.g., familiar-strange, predictable-unpredictable). They were applied to the concepts: average man, neurotic man, insane man, old man, average woman, neurotic woman, insane woman, psychiatrist, father, mother, child, and me.

The results from several large samples led to a number of propositions. Public attitudes are relatively negative toward persons with mental health problems; the mentally ill were regarded with fear, distrust, and dislike, with erratic behavior and anxiety seen as the key symptoms of mental illness. Attitudes are different toward neurotic and psychotic disorders; psychotics generally were held in lower regard due to their unpredictability. Subgroups within the population have slightly different attitudes toward the mentally ill; these differences were related less to demographic variables than were information differences also measured. Nunnally concluded that the negative evaluation and the perceived unpredictability of the mentally ill should become the focus of efforts to increase public information and improve public attitudes.

To investigate attitudes toward mental health experts and to their prescribed treatments for mental illness, Nunnally (1961) applied the Semantic
Differential to the concepts: doctor, physician, nurse, psychiatrist, psychoanalyst, psychologist, clinical psychologist, research psychologist, mental hospital attendant, and social worker. This also led to several propositions. The public appears to hold moderately high positive attitudes toward mental health professionals. It places higher evaluation, however, on professionals who treat physical disorders than those who treat mental disorders. The public does not make connotative distinctions among the various subprofessions within the mental health field. Mental health treatment methods and facilities are held in relatively low esteem.

Nunnally (1961) also asked subjects to use the Semantic Differential to rate how the mentally ill were portrayed in the media, including films, television, books, magazines, and newspapers. It was concluded that the media present a distorted picture of mental health problems, compared to that advocated by mental health experts. Among characters classified as mentally ill, the Semantic Differential profiles closely resembled public attitudes toward the mentally ill. That is, both psychotic and neurotic characters were portrayed as dangerous, dirty, unkind, and unpredictable; neurotics somewhat less so than psychotics. The portrayal of therapists revealed an attitude profile similar to that held by the public for psychiatrists and psychologists.

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That is, these professionals were generally portrayed as intelligent, kind, and valuable. Nunnally concluded that the media picture is, at best, distorted; with bizarre symptoms to make it more exciting and with oversimplified causes and cures to meet the constraints of time and space.

Finally, Nunnally (1961) examined the attitudes of physicians in general practice. He believed that these professionals occupied key positions as advisors and referral agents in mental health matters, as well as actually providing treatment in many cases. The Semantic Differential revealed the general practitioners to have as negative attitudes toward the mentally ill as do members of the lay public. They were found to have moderately favorable attitudes toward mental health care professionals, their methods, and treatment facilities. They appeared to vary among themselves in terms of certain consistent patterns of beliefs, attitudes, and practices. In general, younger doctors were found to be better informed, to have more positive attitudes, and to be more likely to treat cases themselves.

More recently, Aronson and Page (1980) assessed attitudes toward the concepts: self, institutionalized patients, mental hospitals, graduate students in psychology, and undergraduates in psychology as a function of paraprofessional skill training. Twenty-item
Semantic Differentials were administered to 21 upper-level undergraduate psychology students during pretraining, after four weeks of training, and after six weeks of patient contact. Control subjects were similar students enrolled in a traditional academic course. While significant improvement was demonstrated for each concept on one or more dimensions, the results were not dramatic nor were they reliably maintained over time. The investigators noted that the second half of the training program was much less structured or closely supervised than the first, which may have resulted in participants becoming more pessimistic about their impact on the progress of the patients by the time of the posttest.

To test the assumption that negative attitudes toward various stigmatized groups are learned in early childhood, four Semantic Differential scales were used by Wilkins and Velicer (1980) to assess the attitudes of third- and sixth-graders toward four groups: normals (NO), crippled (CR), mentally retarded (MR), and mentally ill (MI). Finding that such attitudes are indeed established in early development would be consistent with social labeling theory (e.g., Scheff, 1966). In fact, the MI group was rated most negatively of the four on the evaluation and understandability scales. They were rated comparably to NOs on activity and potency, however. Both MR and CR groups were rated less positively than NOs on
the evaluation scale, but not as negatively as the MI group was rated. In keeping with Nunnally's (1961) conclusion, the perceived combination of relative activity and unpredictability was seen as the basis of the negative attitudes toward the mentally ill, even in young children.

The Information Questionnaire

Nunnally (1961) distinguished between information (verifiable statements of knowledge or opinion) and attitudes (feelings irrespective of their truth or falsity). He believed that both would interact in determining popular beliefs, but that they should be separated for research purposes. To determine existing public knowledge, Nunnally examined three sources: the public at large, various mental health professionals, and the mass media. A 60-item questionnaire was developed to assess the respondent's agreement with ten information factors or "stereotypes" about mental illness, including the extent to which is believed that: (a) the mentally ill look and act different from each other, (b) mental illness is the result of lack of will power, (c) there exists a sex distinction in susceptibility to mental illness, (d) avoidance of morbid thoughts constitutes the way to mental health, (e) the mentally ill must depend on strong others for guidance and support, (f) mental
illness is seen as a hopeless condition, (g) external causes may be predominant over personality variables, (h) mental illness is viewed as a nonserious problem, (i) there is an age function with respect to susceptibility, and (j) organic causes may be identified.

Analysis of the response of the public sample led Nunnally to draw several conclusions. It appeared that public information is not highly structured regarding the subject of mental illness; factor intercorrelations were low. Neither is it highly crystallized; respondents were inconsistent and unsure in responding to different items pertaining to a given factor. The average person is not grossly misinformed; popular opinion was comparable to expert opinion. Some groups within the population, however, are misinformed; there was a negative correlation between age and correctness, and a positive correlation between formal education and correctness. Nunnally believed that an uninformed public should be easier to educate than a misinformed public, however, this is hindered by the coexistence of very negative attitudes. The results from the expert sample, who were asked what the public should be told about mental illness, indicated that there was relative agreement among these professionals, despite some controversies about causes and cures. While it appeared that the picture of the mentally ill portrayed in the media was a
distorted one, it apparently was not overwhelmingly influential on public beliefs.

In studying the variables that might affect efforts to improve mental health information and attitudes, Nunnally (1961) performed a number of studies with high school and college students, using the Information Questionnaire and the Semantic Differential. He found that posttest scores reflected both better knowledge and more positive feelings on the part of the respondents, although it appeared to be more difficult to change negative attitudes than to increase knowledge. He was concerned, however, about the "sensitizing" effect of the instruments, and advocated the use of experimental and control groups, rather than a before-after design, to minimize this effect.

More recently, Jaffe, Maoz, and Avram (1979) used the Information Questionnaire, along with the Opinions About Mental Illness scales, to study changes in beliefs and attitudes about mental illness and the mentally ill in Israel. The two questionnaires were presented to 69 nursing students, before and after psychiatric affiliations in two kinds of mental hospitals or before and after classroom instruction only. Findings lend cultural generality to previous observations in America that: (a) classroom instruction alone is an ineffective change agent; (b) direct experience with mental patients
in a progressive psychiatric hospital results in a change to a more professional orientation and a more liberal, humanitarian attitude; and (c) confrontation with patients in a more authoritarian, restrictive hospital environment results in the preservation of a stereotyped image of the patient and a negative attitude toward him. The implication for training programs is that a rotation through several placements might be preferable to a longer practicum in a restrictive clinical environment.

**The Opinions About Mental Illness Scales.**

The OMI scales were originally developed by Cohen and Struening (1962) for a study of the attitudes of hospital personnel toward mental illness. They comprise five Likert scales derived from a factor analysis, including: (a) Authoritarianism, reflecting a view of the mentally ill as an inferior class requiring coercive handling; (b) Benevolence, a paternalistic, sympathetic view of patients based on moral principles; (c) Mental Hygiene Ideology, a medical model approach to the treatment of mental illness; (d) Social Restrictiveness, viewing the mentally ill as a threat to society, requiring behavioral constraint both during and after hospitalization; and (e) Interpersonal Etiology, reflecting a belief in the psychological causes of mental illness. To examine factorial invariance and other
psychometric characteristics of the OMI scales, Cohen and Struening (1963) administered the inventory to 400 staff members of three different VA mental hospitals. Intercorrelations for the three samples were analyzed for the five factors. Only the Mental Hygiene Ideology factor appeared to be variant.

Extensive investigations over the next several years led Cohen and Struening (1964, 1965) to a number of findings. White-collar staff, excluding psychiatrists and psychologists, were low on Authoritarianism, while blue-collar workers tended to be both Authoritarian and Socially restrictive. The latter were not Benevolent nor did they advocate Mental Hygiene Ideology or Interpersonal Etiology concerning the causes and cure of mental illness. Psychologists and social workers were low on Authoritarianism and Social restrictiveness, and high on Mental Health Ideology and Interpersonal Etiology. Clergymen showed similar patterns but not so extreme, and psychiatrists resembled clergy more than any other group. It appeared also that the overall atmosphere of a hospital is determined largely by the attitudes of the nurses and aides who comprise most of the clinical staff. Authoritarian-Restrictive atmospheres were correlated with discharge rates, but it was not determined whether discharge criteria were very strict in such settings or whether such attitudes actually inhibit rehabilitation.
While not originally designed to yield change scores, the OMI is considered to be one of the most reliable and valid instruments in this area, and has continued to be widely used. A check on the factor structure, by Dielman, Stiefel, and Cattell (1973) showed relative independence of the five scales, although other studies have revealed some significant, although small and irregular, intercorrelations among them (Moore & Castles, 1978; Fracchia, Pintyr, Crovello, Sheppard, & Merlis, 1972; Sampson, 1976; Wahl, Zastowny, & Briggs, 1980). There is evidence that both training programs and client contact lead to decreased scores on Authoritarianism and Social Restrictiveness, and increased scores in Benevolence, Mental Hygiene Ideology, and Interpersonal Etiology (Smith, 1969; Walsh, 1971; Meltzer & Grigorian, 1972); although there have been some more equivocal findings (Dallia, 1974; Distefano & Pryer, 1975, 1979; Sampson, 1976; Taylor & Dear, 1981), including a questioning of the relationship of Benevolence to the other four scales (Guest, 1975).

Racial and ethnic differences have been cited in studies using the OMI (Guest, 1975; Kahn & Jones, 1969), but these are attenuated when controlled for various socioeconomic variables, such as acculturation (Fletcher, 1969). There appears to be little or no relationship between the attitudes reflected in OMI scores and those
from other standard personality tests (Dallia, 1974; Guest, 1975; Adams, 1979); and little or no demonstrated relationship between these scores and more behavioral measures (Jackson & Levine, 1977; Stocton, 1976; Dowds, Kulik, and Scheibe, 1969).

The Client Attitude Questionnaire

The CAQ was developed by Morrison (1979b) as an instrument to measure attitudes toward mental illness and to determine where these attitudes fall along a psychosocial-medical model continuum. The instrument has also been used to measure the success of attempts to change attitudes by means of educative seminars. It has been shown to have high test-retest reliability, and in support of its construct validity, psychologists and social workers have revealed attitudes more characteristic of the radical psychosocial orientation than have psychiatrists, psychiatric nurses, or previously hospitalized psychiatric patients (Morrison & Nevid, 1976a).

The "demythologizing approach" to community education specifies what Morrison (1979c) and others (e.g., Szasz, 1961) refer to as "myths" surrounding psychiatric ideology and practice. It provides empirical evidence for challenging these beliefs and the attitudes that tend to go with them. Morrison (1979a) has argued
for rejecting the medical model approach, at least in the context of community psychology, due to the negative implications it has for the client with respect to his competency, self-sufficiency, and independence. While not all clients may achieve the goal of total independence from care providers, it has been assumed that most can achieve higher levels than they started with.

The demythologizing approach has been proven successful with mental health professionals (Morrison & Becker, 1975), high school and college students (Morrison, Cocozza, & Vanderwyst, 1978; Morrison & Teta, 1978, 1979, 1980), family care providers (Morrison & Nevid, 1976a), the community at large (Morrison & Teta, 1977), and mental patients themselves (Morrison, 1976b; Morrison, 1977a; Morrison & Nevid, 1976c). The genuine and substantial nature of this attitude change has been supported (Morrison & Nevid, 1976b), and the relationship between a psychosocial perspective and patient attitudes such as independence and self-worth has been demonstrated (Morrison & Yablonovitz, 1978; Morrison, Bushell, Hanson, Holdridge-Crane, & Fentiman, 1977; Morrison, Pasano, Becker, & Nevid, 1976; Connelly, Harris, & Morrison, 1979). The ethical implications of the model society holds for mental illness, for the public, for practitioners, and for patients, has also been discussed (Morrison & Teta, 1979; Mancuso, Eson, & Morrison, 1979;
Miscellaneous Research Instruments

Miscellaneous Research Instruments. A number of attitude surveys and related tools have been introduced over the past decade, but most of these await impartial analysis and evaluation. Kish and Hood (1974), using the Nurse’s Observation Scale for Inpatient Evaluation, discovered that patient contact led college students to perceive patients as less dangerous and more socially competent than they had previously. Using an original questionnaire, Herr (1975) concluded that, compared to a typical ward setting, the more normalized environment of a camping experience, with emotionally disturbed adolescents, better promoted positive attitudes on the parts of the college student participants. Cox, Costanzo, and Cole (1976) assembled a 190-item survey instrument, based mainly on MMPI items. From this emerged three personality factors which seemed to reflect more discrete behaviors versus the global clinical syndromes found with the Clinical Vignettes.

A form of the Incomplete Sentence Blank was used by Doll, Thompson, and Lefton (1976) in an attempt to replicate previous research which suggested that shame and social distance characterize the relationship between the family and the former mental patient. The results
indicated that such reactions can coexist with, interact with, and even be overcome by, simultaneous feelings of sympathy, understanding and compassion. Frazier (1976) found that a combination of factual information and systematic desensitization were effective in achieving positive attitude change, using an anxiety measure as well as attitude measures.

Using an original Beliefs About the Nature of Mental Disorder questionnaire, the consequences of changing public conceptions of mental illness, for the victim and his family, were considered by Farina, Fisher, Getter, and Fischer (1978). Two messages, one describing mental illness as a disease and the other as a product of social learning, were both effective in changing the beliefs of 405 college students. More important, the subjects receiving the disease message thought that a victim of mental illness could do less to help himself than did those who got the social learning message. In a related experiment, it was hypothesized that subjects getting the disease message prior to therapy would feel less able to handle their problems and would take a less active role in treatment. The results confirmed this hypothesis. It was concluded that acceptance of the medical model may have a debilitating effect on the victim, without any accompanying loss of stigma or degradation associated with mental illness.
In a later, similar investigation, Fisher and Farina (1979) used an adaptation of their questionnaire in an attempt to generalize their findings with respect to the attitudinal and behavioral effects of changing subjects' conceptualizations about mental illness. College students in a field setting were exposed to messages emphasizing either social learning or genetic and somatic factors in the etiology of mental disorders. Students in the biosocial condition tended to place less value in thinking about the causes and solutions for emotional problems, and they felt they could do less on a personal level to resolve their problems. Also, this group reported a greater tendency to use alcohol or drugs to relieve emotional distress and to advocate the availability of over-the-counter medications to treat their symptoms. It was concluded that current advertising campaigns that promote the concept that mental illness is a disease do not consider the consequences; namely, that it promotes a sense of victimization without lessening social stigma.

Using diagnostic criteria, Janus, Bess, Cadden, and Greenwald (1980) found that 80 police officers receiving short-term, intensive instruction by mental health experts were better able to distinguish between examples of mental illness and other behavior, when compared to controls who did not receive this special instruction.
The experimental group also reported increased interest in and sympathy for psychiatric problems. Page (1980) evaluated the social responsiveness of the public versus psychiatric hospital staff, using Milgram's "lost letter" technique. The public returned no fewer, and no more, letters just because they were believed to be addressed to mental patients. Psychiatric staff returned significantly fewer letters than did the general public.

Considerations of the complexity of public acceptance of the mentally ill led to the development of the Community Acceptance Scale (CAS), by Johnson and Beditz (1981) to determine the extent of community support for the chronically mentally ill. Comparison of the general public with residents in a neighboring town known to be opposed to community-based services served to establish the validity of this scale. The investigators stressed the need to distinguish between active (behavioral) and passive (cognitive) acceptance, and between previously and currently mentally ill in interpreting research in this area. They were impressed by the extent of personal contact with the mentally ill in daily life reported by their respondents. They judged the CAS to be a promising tool, but one in need of refinement. They recommended a multi-method approach which might involve such direct observations as attending neighborhood meetings or asking community placement
residents how they perceived public attitudes toward
themselves.

Taylor and Dear (1981) discussed the development of
the Community Attitudes Toward the Mentally Ill scales. A
high degree of intercorrelation was found between a
priori scales, but there was also a reasonable
correspondence between a priori and factor scales. Thus,
the CAMI scales appear to represent dimensions included
in previous instruments, such as Authoritarianism,
Benevolence, Social restrictiveness, and Community Mental
Health Ideology; but they are expressed in terms of a new
set of items which emphasize community contact with the
mentally ill and psychiatric treatment facilities. The
results of a survey of over a thousand Toronto residents
supported the validity of the scales and demonstrated
their usefulness in studying community response to mental
health facilities. Generally, it was found that higher
socioeconomic status was related to more sympathetic
attitudes. It also seemed clear that greater personal
experience with mental health problems has had a
significant positive impact on public attitudes.

The Hypotheses

Historically, there exists one body of literature
that shows the American public to be fearful and
rejecting of the mentally ill, and another that suggests
that public education efforts, endorsing a medical model, have led to greater public acceptance and less social distance with respect to this disabled group. The OMI has been one of the most widely used instruments to study the area of community mental health attitudes, despite its factor inconsistencies and some limitations for modern interpretation. While their relationship with other attitudes and their relationship with overt behavior remain under investigation, mental health attitudes, according to the OMI and several more recent instruments, can be changed by a variety of educational and training approaches. Change does not necessarily mean improvement, however, and some researchers have questioned the value of promoting the medical model of mental illness.

Rabkin (1975) has articulated the general conclusion that the multideterminate nature of both attitudes and behavior must be recognized, and that components of attitudes and measuring instruments must be selected according to the specific goals of a given investigation. More sophisticated experimental designs and more rigorous statistical procedures are necessary to consider the complex interactions which may exist between the two types of variables. Instruments should be employed that have been expressly designed to yield change scores, and existing tools must be revised or combined to answer expanding questions about community
mental health issues. Finally, the behavioral correlates of attitude change must become the increasing center of attention, even, perhaps, to the point where an instrument is designed to assess the probability of engaging in a specific behavior in a given situation, rather than attempting to measure some general characteristic of the respondent.

With consideration for the above criticisms and suggestions, the present study was undertaken to test the following hypotheses: (a) that the public is better informed and more favorably disposed toward the mentally ill than was true in the 1950s; (b) that the public is more inclined, however, to espouse the medical model that has characterized public education efforts than is the more psychosocially-oriented group of mental health professionals; (c) that such an orientation by the public is accompanied by a general pessimism about what an individual can do to become actively involved in a treatment program for his or her own mental health problems; (d) that a demythologizing (anti-medical model) approach to public education can lead to more positive attitudes toward the mentally ill and to more self-help efforts in resolving mental health problems; and (e) that improved mental health attitudes are related to more positive overt behavior with respect to those identified as mentally ill.
METHODS

The general methodology was to administer, to the public and to psychiatric professionals, questionnaires selected from among the traditional and the more contemporary instruments described in the Review of the Literature section of this paper. Subject selection was not random, but was the result of a request for volunteers from existing college classes and community mental health organizations. Within the public sample, two subgroups received an intervention in the form of a demythologizing seminar patterned after the procedures employed by Morrison (1979b), and the remaining four groups served as controls for the intervention effect. The three subgroups which made up the professional sample served as a reference group against which to evaluate both the pretest and posttest beliefs of the public. All subjects in the public and professional samples were pretested, and posttest and follow-up measures were obtained from some members of the treatment groups. Responses were scored according to procedures established for each questionnaire, and the results were subjected to a multivariate statistical analysis.
Subjects

One treatment group was made up of community college students who were completing a sequence in mental health nursing theory and clinic as part of an associate degree program. Fourteen of the 21 students volunteered to be in the Nursing (NSG) group, and completed the pretest at the beginning of the term. Of these, 10 completed the posttest following two weeks of orientation and the presentation of a two-hour demythologizing seminar, and 5 completed the follow-up questionnaire at the end of eight weeks and the completion of their clinical placement. The original 14 were all white, included 13 females and 1 male, and had a mean age of 30.14 years. Eleven reported working as LPNs and 3 identified themselves as full-time students. The median family income, based on the reports of 13 students, was $30,000. In response to an open-ended question about mental health experiences, 13 reported having taken college courses, 7 reported work-related experiences, and 1 reported a family mental health problem.

The second treatment group was drawn from a section of Abnormal Psychology at the same community college attended by the nursing students. Of the 27 enrolled, 18 volunteers completed the pretest questionnaire, 12 completed the posttest questionnaire following the
seminar, and 11 responded to the follow-up questionnaire. The Psychology (PSY) group included 11 females and 7 males, with a mean age of 29.28. Five reported themselves to be full-time students, and the median income, based on figures for 10 of the volunteers, was $35,000. On the question about mental health experience, 11 reported previous college courses, 5 reported work-related experiences, and 7 reported mental health problems of their own or among family or friends.

The three subgroups making up the public sample were drawn from statistics courses oriented toward business and social science majors. Two sections were taught at the community college from which the treatment groups were drawn, and the third was taught at a state university. The 34 volunteers in the Math (MTH) group included 21 students from a regular daytime class, 9 from an evening class, and 4 from a weekend class. Based on their demographic similarities, it was deemed appropriate to pool these subsamples. There were 16 females and 17 males, with 1 respondent failing to indicate sex. Racial composition was 29 White, 2 Black, and 2 Other, with 1 not reporting race. Six of 30 identified themselves as full-time students. Based on 28 reported incomes, the median was $29,750. As far as relevant mental health experience, 21 reported college classes, 10 reported work-related experiences, 7 mentioned mental health
problems with respect to themselves, family, or friends, and 8 did not respond to this question. Thirteen of the original group completed the follow-up questionnaire.

The professional sample consisted of volunteers drawn from the administrative, clinical, and support staffs of three community mental health (CMH) organizations. There were 33 respondents from CMH1, 36 from CMH2, and 42 from CMH3, representing returns of from approximately 50 to 60%. The mean age across the three groups were 36.58. With 3 not reporting sex, there were 70 females, and 38 males. With respect to marital status, there were 32 single, 65 married, 8 divorced, 2 widowed, and 4 not reporting. Twenty-eight reported a high school education, 44 a college degree, and 35 a graduate degree. Median income for 81 subjects reporting was $25,000. Religious affiliation indicated 47 Protestants, 15 Catholics, 2 Jews, 1 Buddhist, 20 reporting none, and 26 not responding to that question. There were 86 Whites, 8 Blacks, 2 Hispanics, and 15 not responding. In terms of work, 5 were administrators, 56 were clinicians, 46 were support staff, and 4 did not indicate their roles.

Instruments

The pretest instrument in the public control group and the pretest and the posttest instruments in the treatment groups were identical and included the
following questionnaires: (a) the Opinions About Mental Illness (OMI) scales, (b) the Client Attitude Questionnaire (CAQ), Form A and Form B, (c) the Community Attitudes Toward the Mentally Ill (CAMI) scales, (d) the Beliefs About the Nature of Mental Disorders (BANMD) questionnaire, (e) the Community Acceptance Scale (CAS), (f) the Semantic Differential (SD), (g) the Three Forces Inventory and the Three Approaches to Personality questionnaire (TF), (h) the Information Questionnaire (IFQ), and (i) the Demographic Information Form. The follow-up instrument for the treatment groups was identical to the abbreviated pretest used in the professional sample, and included only the CAMI, the CAQ, the BANMD, the CAS, and a revised Demographic Information Form.

The OMI includes 53 statements with which the respondent can agree or disagree along a 6-point Likert scale. These statements are associated with five subscales: Authoritarianism ("Every mental hospital should be surrounded by a high fence and guards."), Benevolence ("Patients in a mental hospital are in many ways like children."), Mental Hygiene Ideology ("Mental illness is an illness like any other."), Social Restrictiveness ("Anyone who is in a hospital for a mental illness should not be allowed to vote."), and Interpersonal Etiology ("If parents loved their children

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more, there would be less mental illness."). Positive attitude change has traditionally been viewed in terms of decreased Authoritarianism and Social Restrictiveness, accompanied by increases on the other three scales. More recently, however, high scores on Benevolence have been associated with an undesirable paternalistic orientation toward mental patients, and high scores on Mental Hygiene Ideology have been linked with problems that seem, to some, inherent in the medical model of mental illness, such as promoting feelings of helplessness and dependency.

The CAQ Form A was the original questionnaire and was later replaced by Form B. Each form consists of 20 statements which the respondents answers as "true," "false," or "not sure." Statements have been phrased to support either a medical model ("A mental hospital is usually very helpful to patients in resolving their problems.") or a psychosocial approach ("Mental hospitals should be abolished.") to understanding and treating mental problems, and have been varied in polarity to avoid a "halo" effect. A high score, maximum 60, reflects a strong psychosocial orientation, and a low score, minimum 20, reflects close adherence to a medical model. High scores are thought to be associated with a more "consumer-oriented" approach to community psychiatry; one which emphasizes the independence of clients and active

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involvement in the planning, implementation, and evaluation of their treatment.

The CAMI scales include 40 statements to be answered on a 5-point Likert scale. The purpose of this instrument is to aid in the assessment and prediction of community attitudes toward social integration of former psychiatric patients. Factor analysis has produced four scales: Authoritarianism, Benevolence, Social Restrictiveness, and Community Mental Health Ideology. These differ from the OMI scales by placing greater emphasis on community contact with the mentally ill ("The best therapy for many mental patients is to be part of a normal community.") , and by the statements being worded more for the general public than for a professional sample. Statements alternate among the four scales, 10 statements pertaining to each. High CMHI scores, maximum 50, have been associated with more positive reactions to the existence or to the proposal of a community mental health facility in one's neighborhood.

The BANMD questionnaire is made up of 10 questions, answered along a 5-point Likert format, which reflect a disease-social-learning continuum ("Does curing mental illness lie more in developing better verbal psychotherapy or better medically-based treatments?"). Respondents exposed to mental health information with a psychosocial orientation have been shown to adopt such an
orientation themselves, to attach less stigma to mental health problems, to take more responsibility for thinking about and trying to do something about such problems, and to depend less on medical professionals and their treatment approaches.

The CAS is a list of 8 questions, answered "yes" or "no," to measure how respondents would react to inclusion in their community of previously mentally ill persons ("Can you imagine yourself becoming a close friend with someone who is mentally ill?") or a facility for the currently mentally ill ("Would you object if a halfway house for mentally ill people was located next door to you?"). When completed by respondents previously identified as "accepting" or "nonaccepting," significant differences were found on 5 of the 8 items, with the non-accepting group scoring significantly lower on these items.

The Semantic Differential consists of 30 bipolar scales factored in terms of Evaluation ("good-bad"), Potency ("strong-weak"), Activity ("slow-fast"), and Understandability ("strange-familiar"). These scales are answered on a 7-point Likert scale and are applied to the concepts of Average Person, Mentally Retarded Person, Mentally Ill Person, and Crippled Person. The positive and negative ends of the continuum have been varied to avoid a "halo" effect. The mentally ill have been rated
lower on Evaluation and Understandability scales than normals or either of the other two disabled groups, but have ranked similarly to normals on Potency and Activity. It is this particular combination of attributes that has been said to account for the relatively negative public reaction to the mentally ill.

The Three Forces Inventory (Fernald & Fernald, 1978) was not discussed in the Review of the Literature section of this paper. It consists of 15 Likert-style items designed to measure psychoanalytic, behavioristic, and humanistic interests and concerns. The items concerning psychoanalysis stress the importance of unconscious processes, defensive behavior, early childhood experiences, basic impulses such as sex and aggression, and dreams ("Much of human behavior is defensive; most individuals unconsciously deny, distort and falsify reality."). The items relating to behaviorism emphasize stimulus-response relationships and the important role played by reinforcements. They downplay the study of conscious experience and the use of introspection in favor of a more objective approach ("Scientists interested in studying human behavior should discard all references to consciousness and focus on observable behavior."). The remaining items pertain to the humanistic approach, emphasizing the uniqueness and complexity of human beings, and the necessity for
imprecision in behavioral science ("Psychologists should pay more attention to the subjective aspects of human life, especially thinking and feeling."). This instrument was included to provide some discrimination within the psychosocial orientation studied with previously mentioned instruments. Five statements, with a 7-point scale, pertain to each force, allowing scores to range from 5 to 35 on each.

Another instrument not yet discussed is a similar questionnaire, by the same authors, the Three Approaches to Personality Inventory, designed to measure the extent of agreement with the three different approaches as they relate to studying personality. Since the 7-point Likert-style format does not involve forced choices, it is possible for respondents to answer in an eclectic fashion, endorsing one or more aspects of all three approaches. With four statements per approach, and a 7-point scale, scores for each may range from 4 to 28, and the index of eclecticism may range from 12 to 84. The rationale for including this test was the same as that for the Three Forces Inventory; to provide additional information about the psychosocial perspective on mental illness, and results of both were combined as TF scores.

The IFQ consists of 60 items, answered on a 7-point Likert scale. These statements have been analyzed into 10 factors relating to common stereotypes about the mentally
ill. The stereotypes include (a) Look and Act Different ("The mentally ill pay little attention to their personal appearance.") , (b) Will Power (disagree with "Will power alone will not cure mental disorders."), (c) Sex Distinction (disagree with "Women have no more emotional problems than men do.") , (d) Avoidance of Morbid Thoughts ("The best way to mental health is by avoiding morbid thoughts."), (e) Guidance and Support ("Psychiatrists try to show the mental patient where his ideas are incorrect.") , (f) , Hopelessness ("Few people who enter mental hospitals ever leave.") , (g) External Causes Versus Personality ("Mental illness can usually be helped by a vacation or change of scene.") , (h) Nonseriousness ("Emotional problems do little damage to the individual.") , (i) Age Function (disagree with "Older people have fewer emotional problems than younger people.") , and (j) Organic Causes ("Mental disorder is usually brought on by physical causes."). Statements are presented in a random order, and are variously phrased in a positive or negative manner to avoid a "halo" effect. Agreement with these stereotypes has been associated with negative attitudes toward the mentally ill as measured by the SD.

The Demographic Information Form was used to explain the nature of the study, to provide directions on how to answer each questionnaire, and to request from the
student samples the following information: age, sex, race, work, family income, and relevant mental health experience. The revised form given the professional samples did not include the mental health experience item, which was taken for granted, but requested the additional information of marital status, education level, and religious preference.

Procedure

The students in the MTH group were told that they were being asked to participate in a study of mental health attitudes, that their involvement would have no bearing on their course grades, and that their questionnaire responses would be kept confidential. Students signed a consent form and were given copies of the questionnaires, including a set of instructions for completing them. They were asked to return the completed questionnaires within two weeks. A number of these students also completed the abbreviated posttest form of the questionnaires, about eight weeks later, at a time corresponding to the follow-up of the two treatment groups.

The NSG treatment group was given an orientation similar to that given the MTH group. Volunteers were asked to complete all questionnaires at the beginning of the term and following a demythologizing seminar given
two weeks later. In addition, some students were followed up with the abbreviated questionnaires at the end of a six-week clinical practicum. Part of the group completed its practicum in the psychiatric unit of a private hospital and some were placed on the wards of a psychiatric Veterans Administration Hospital.

After a similar orientation, volunteers from the Psychology (PSY) Group took the pretest. They attended a demythologizing seminar at about the same time the NSG group did, and completed a posttest afterward. They were followed up at approximately the same time as the NSG group, but had no practicum experience during the interim.

The seminar for the two treatment groups was presented by this investigator and lasted approximately two hours. It was prefaced by a brief overview of the development of the medical, psychodynamic, behavioral, and humanistic perspectives concerning abnormal behavior (Calhoun, 1977); followed by a discussion of the "crime of commitment" (Szasz, 1970); and concluding with a discussion of various "psychiatric myths" (Morrison, 1979b) and popular misconceptions about abnormal behavior (Coleman, Butcher, & Carson, 1980) (see Appendix for an outline of the seminar).

The CMH groups received instructions by their supervisors which were similar to those given the student
samples. They completed the revised Demographic Form and the abbreviated questionnaires on a single occasion.

Multiple comparisons among the different groups on the various test scores were made using univariate analyses of variance and a Bonferroni approach. This procedure provides conservative, yet powerful tests of statistical significance by requiring critical values for significance that reflect the total number of dependent variables or comparisons to be made in addition to the number of groups and the sizes of the samples employed (Huitema, 1980). Between-group differences were examined on pretest measures using a Newman-Keuls approach, and were compared to results obtained in previous studies, using a two-sample t test and a Bonferroni procedure. Preseminar-postseminar differences were observed within groups using a correlated t test and a Bonferroni approach, and were also compared to test and change scores obtained in earlier research.
RESULTS

Demographic Variables and Test Scores

Although between-group differences on the demographic variables were not tested for statistical significance, they appeared comparable among the three community mental health groups and the three student groups. Univariate analyses of variance were run to determine whether significant relationships exist between these variables and the different questionnaire scores across all six groups. Using a .05 level of significance, and a Bonferroni critical value for the F statistic, sex appears to be a significant variable with respect to scores on three subscales of the CAMI and mental health experience seems to be significantly related to one of the CAMI scales and to scores on the CAS. Race showed a significant relationship with scores on one of the OMI subscales. Demographic variables not found to be significantly related to any of the test scores include: age, income, race, work, marital status, education, and religion. Information on marital status, education level, and religious preference was available only for the community mental health groups.

With respect to sex, there appeared to be a tendency for males (N = 62, M = 24.13) to score higher
than females (N = 104, M = 21.33) on the Authoritarianism subscale of the CAMI (CAMI1), with those not indicating sex (N = 3, M = 25.33) having the highest average. On the Benevolence subscale (CAMI2) the tendency was for females to score higher (M = 40.86) than males (M = 37.52) or those not reporting sex (M = 40.67). Females also averaged higher scores (M = 39.01) on the Community Mental Health Ideology subscale (CAMI4) compared to males (M = 34.76) although those not reporting sex had slightly higher scores yet (M = 41.00).

In terms of mental health experience, those who had personal (N = 11, M = 17.45) or work-related (N = 120, M = 19.81) experiences tended to score lower on the Social Restrictiveness subscale of the CAMI (CAMI3) than did those reporting no relevant experience (N = 3, M = 24.67) and those not responding to this item (N = 13, M = 25.62). Those reporting academic study as their only relevant mental health experience (N = 22, M = 22.36) averaged between the two extreme values. Also with respect to this variable, CAS scores were higher for those having personal (M = 7.09) or work-related (M = 6.75) experiences than for those reporting classroom-related (M = 5.00) experiences only or reporting no such experiences (M = 4.67). Those failing to report on this item had an average (M = 5.46) between the two extremes.
While racial background showed a strong relationship with the Authoritarian subscale (OMI1) of the OMI, the very small size, as well as extreme scores of the non-responding (N = 1, M = 9.8) and the Other (N = 3, M = 32.17) groups, relative to the more moderate and comparable scores of the White (N = 55, M = 15.06) and Black (N = 3, M = 16.03) groups, make this finding difficult to interpret. The Other group consisted of a Hindu, an East Indian, and an Asian.

Tables 1 through 3 summarize the F values for the analyses performed. In these and subsequent tables abbreviations are used to represent the various groups and tests. CMH1, CMH2, and CMH3 refer to the community mental health "professional" groups, MTH refers to the "public" control group drawn from the math classes, and NSG and PSY refer to the student treatment groups selected from the Nursing and Abnormal Psychology classes, respectively. OMI1 through OMI5 are the Authoritarianism, Benevolence, Mental Health Ideology, Social Restrictiveness, and Interpersonal Etiology subscales of the Opinions About Mental Illness Scale, respectively. CAQ, BANMD, and CAQ refer to the Client Attitude Questionnaire, the Beliefs About Mental Illness Questionnaire, and The Community Acceptance Scale, respectively. SD1 through SD4 refer to the concepts of Average Person, Mentally Retarded Person, Mentally Ill
### TABLE 1
Relationships Among Demographic Variables and Test Scores on the CAMI, CAQ, BANMD, and CAS (Univariate ANOVA Fs)

<table>
<thead>
<tr>
<th>Tests: CAMI1</th>
<th>CAMI2</th>
<th>CAMI3</th>
<th>CAMI4</th>
<th>CAQ</th>
<th>BANMD</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>4.99</td>
<td>3.96</td>
<td>4.31</td>
<td>3.46</td>
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<tr>
<td>Sex</td>
<td>6.51*</td>
<td>7.48*</td>
<td>1.95</td>
<td>7.66*</td>
<td>0.23</td>
<td>0.13</td>
</tr>
<tr>
<td>Income</td>
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<td>0.70</td>
<td>0.46</td>
<td>0.82</td>
<td>0.94</td>
<td>1.12</td>
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<td>Race</td>
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<td>1.87</td>
<td>1.49</td>
<td>0.67</td>
<td>0.95</td>
</tr>
<tr>
<td>Work</td>
<td>1.39</td>
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<td>2.58</td>
<td>2.49</td>
<td>1.12</td>
<td>0.35</td>
</tr>
<tr>
<td>MH Experience</td>
<td>1.97</td>
<td>4.09</td>
<td>4.80</td>
<td>4.08</td>
<td>1.12</td>
<td>1.27</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.65</td>
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<td>0.38</td>
<td>0.47</td>
<td>2.95</td>
<td>0.36</td>
</tr>
<tr>
<td>Education</td>
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<td>0.56</td>
<td>0.61</td>
<td>1.51</td>
<td>4.95</td>
<td>0.75</td>
</tr>
<tr>
<td>Religion</td>
<td>2.17</td>
<td>0.56</td>
<td>0.73</td>
<td>1.73</td>
<td>3.39</td>
<td>1.73</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
TABLE 2

Relationships Among Demographic Variables and Test Scores on the OMI and the IFQ
(Univariate ANOVA Fs)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>OMI1</th>
<th>OMI2</th>
<th>OMI3</th>
<th>OMI4</th>
<th>OMI5</th>
<th>IFQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.61</td>
<td>0.64</td>
<td>0.75</td>
<td>0.66</td>
<td>0.37</td>
<td>0.24</td>
</tr>
<tr>
<td>Sex</td>
<td>3.35</td>
<td>0.90</td>
<td>1.65</td>
<td>0.64</td>
<td>0.02</td>
<td>1.46</td>
</tr>
<tr>
<td>Income</td>
<td>1.27</td>
<td>0.17</td>
<td>2.48</td>
<td>0.65</td>
<td>2.31</td>
<td>2.23</td>
</tr>
<tr>
<td>Race</td>
<td>8.25*</td>
<td>0.62</td>
<td>3.46</td>
<td>2.56</td>
<td>1.71</td>
<td>3.30</td>
</tr>
<tr>
<td>Work</td>
<td>1.00</td>
<td>1.62</td>
<td>1.18</td>
<td>1.54</td>
<td>2.03</td>
<td>0.21</td>
</tr>
<tr>
<td>MH Experience</td>
<td>3.13</td>
<td>0.90</td>
<td>0.21</td>
<td>3.03</td>
<td>1.78</td>
<td>1.86</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
TABLE 3
Relationships Among Demographic Variables and Test Scores on the SD and TF (Univariate ANOVA Fs)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>SD1</th>
<th>SD2</th>
<th>SD3</th>
<th>SD4</th>
<th>TF1</th>
<th>TF2</th>
<th>TF3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.57</td>
<td>1.03</td>
<td>1.62</td>
<td>2.84</td>
<td>0.38</td>
<td>0.31</td>
<td>0.75</td>
</tr>
<tr>
<td>Sex</td>
<td>0.41</td>
<td>0.43</td>
<td>1.54</td>
<td>0.93</td>
<td>0.87</td>
<td>0.04</td>
<td>1.86</td>
</tr>
<tr>
<td>Income</td>
<td>0.60</td>
<td>1.42</td>
<td>0.57</td>
<td>1.15</td>
<td>0.59</td>
<td>0.60</td>
<td>2.16</td>
</tr>
<tr>
<td>Race</td>
<td>1.26</td>
<td>0.86</td>
<td>1.66</td>
<td>0.73</td>
<td>0.57</td>
<td>0.55</td>
<td>2.61</td>
</tr>
<tr>
<td>Work</td>
<td>1.29</td>
<td>0.64</td>
<td>0.11</td>
<td>1.15</td>
<td>1.97</td>
<td>0.43</td>
<td>0.80</td>
</tr>
<tr>
<td>MH Experience</td>
<td>1.41</td>
<td>0.93</td>
<td>1.30</td>
<td>2.31</td>
<td>1.51</td>
<td>0.50</td>
<td>0.76</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
Person, and Crippled Person on the Semantic Differential. The Psychoanalytic, Behavioral, and Humanistic scales are referred to, respectively, as TF1, TF2, and TF3 on the Three Forces Inventory and Three Approaches to Personality Test. The Information Questionnaire is abbreviated IFQ.

## Between-Group Pretest Differences

Tables 4 through 7 summarize the descriptive characteristics of the six groups (sample sizes, means, and standard deviations) and the results of the univariate analyses of variance performed on each of twenty questionnaire scales and subscales that comprised the pretest. From these tables it can be seen that of the twenty ANOVA, only two produced significant F values at the .05 level of significance, using a Bonferroni approach to take into consideration the large number of dependent variables. The two significant values were on the Community Mental Health Ideology subscale of the CAMI (CAMI4) and the CAS. Such findings suggest that these two scales may better discriminate between the public and community mental health professionals with respect to certain attitudes than do the others tests. This is consistent with the hypothesis that the public is inclined to espouse a model of mental illness different from that held by the mental health profession. It is

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### TABLE 4

Between-Group Pretest Characteristics and Comparisons on the CAMI (Ns, Ms, SDs and ANOVA Fs)

<table>
<thead>
<tr>
<th>Group</th>
<th>CMH1</th>
<th>CMH2</th>
<th>CMH3</th>
<th>MTH</th>
<th>NSG</th>
<th>PSY</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMI1</td>
<td>33</td>
<td>34</td>
<td>42</td>
<td>33</td>
<td>12</td>
<td>15</td>
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</tr>
<tr>
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<td>22.91</td>
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<td>23.97</td>
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<tr>
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<td>4.43</td>
<td>5.24</td>
<td>5.18</td>
<td>6.52</td>
<td>4.54</td>
<td>3.70</td>
<td>1.00</td>
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<td>CAMI2</td>
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<td>39.59</td>
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<td>36.88</td>
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<td>40.00</td>
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</tr>
<tr>
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<td>4.89</td>
<td>5.35</td>
<td>4.87</td>
<td>6.40</td>
<td>5.09</td>
<td>6.89</td>
<td>2.23</td>
</tr>
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<td>CAMI3</td>
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<td>33</td>
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<tr>
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<td>23.21</td>
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<td>4.02</td>
<td>6.21</td>
<td>5.11</td>
<td>7.64</td>
<td>6.40</td>
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</tr>
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<td>CAMI4</td>
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<td>34</td>
<td>42</td>
<td>33</td>
<td>12</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.82</td>
<td>36.06</td>
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<td>34.48</td>
<td>36.75</td>
<td>34.95</td>
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<tr>
<td></td>
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<td>6.44</td>
<td>7.50</td>
<td>7.28</td>
<td>6.11</td>
<td>4.24*</td>
</tr>
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</table>

* significant at the .05 level using a Bonferroni approach
### TABLE 5

Between Group Pretest Characteristics and Comparisons on the CAQ, BANMD, and CAS (Ns, Ms, SDs, and ANOVA Fs)

<table>
<thead>
<tr>
<th>TEST</th>
<th>CMH1</th>
<th>CMH2</th>
<th>CMH3</th>
<th>MTH</th>
<th>NSG</th>
<th>PSY</th>
<th>F</th>
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<td>2.89</td>
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<td>34.71</td>
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<tr>
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<td>3.97</td>
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<td>4.19</td>
<td>3.82</td>
<td>3.00</td>
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<td>CAS</td>
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<tr>
<td></td>
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<td>1.92</td>
<td>1.95</td>
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* significant at the .05 level using a Bonferroni approach
<table>
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<tr>
<th>Group</th>
<th>OMI1</th>
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<th>OMI3</th>
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<td>8.95</td>
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<td>6.04</td>
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<td>4.69</td>
<td>8.32</td>
<td>4.72</td>
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<td>PSY</td>
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<td>7.50</td>
<td>6.13</td>
<td>5.84</td>
<td>6.39</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1.55</td>
<td>2.78</td>
<td>2.76</td>
<td>1.04</td>
<td>0.96</td>
<td>3.13</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
<table>
<thead>
<tr>
<th>Group</th>
<th>SD1</th>
<th>SD2</th>
<th>SD3</th>
<th>SD4</th>
<th>TF1</th>
<th>TF2</th>
<th>TF3</th>
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</thead>
<tbody>
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<td>32</td>
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<td>132.1</td>
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<td>13.32</td>
<td>5.61</td>
<td>3.81</td>
<td>5.36</td>
</tr>
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<td>NSG</td>
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<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
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<td>128.9</td>
<td>115.9</td>
<td>128.5</td>
<td>42.67</td>
<td>36.25</td>
<td>42.08</td>
</tr>
<tr>
<td></td>
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<td>16.27</td>
<td>18.94</td>
<td>11.16</td>
<td>4.05</td>
<td>4.67</td>
<td>6.30</td>
</tr>
<tr>
<td>PSY</td>
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<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
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<td>125.0</td>
<td>114.4</td>
<td>131.5</td>
<td>37.33</td>
<td>37.40</td>
<td>43.60</td>
</tr>
<tr>
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<td>12.55</td>
<td>17.14</td>
<td>9.90</td>
<td>15.47</td>
<td>6.15</td>
<td>4.06</td>
<td>4.95</td>
</tr>
</tbody>
</table>

| F     | 1.49 | 1.33 | 0.24 | 0.31 | 3.15 | 1.17 | 0.38 |

* significant at the .05 level using a Bonferroni approach
also consistent with the hypothesis that the model espoused has some bearing on the belief about what can and should be done to solve mental health problems.

Pairwise comparisons, using a Newman-Keuls procedure, were made among the various community mental health and student groups on the CAMI4, yielding three significant mean differences. The difference between CMH1 and the MTH group is significant at the .05 (and .01) level. The difference between CMH2 and the MTH group is also significant at the .05 level. Another significant difference is that between CMH1 and CMH2. In each of these three comparisons the former member of the pair averaged higher scores on this index of community-based treatment orientation. The first two comparisons are consistent with the hypothesis that the public is more oriented toward a medical model of psychiatric treatment than are mental health professionals. The third comparison suggests that community mental health organizations may differ in their commitment to a community-based treatment orientation. Overall, it appears that the groups fall along a continuum with regard to this orientation, CMH groups falling along the high end, overlapping somewhat with the NSG and PSY groups in the middle region, but being generally higher than the MTH group at the lower extreme.

Pairwise comparisons among the groups for the CAS
reveal a similar ordering of scores, but with less
distinction among the three student groups. Significant
at the .05 level are the differences between CMH3 and the
two student groups (the difference between CHM3 and MTH
also being significant at the .01 level). CMH1 differs
significantly from the MTH group as well. Both CMH1 and
CMH3 also differ significantly from CMH2, (the former
also at the .01 level; the latter nearly so). These
results are consistent with the hypothesis that the
public differs from mental health professionals in terms
of a specific aspect of community mental health ideology,
namely, receptiveness to community-based residential and
treatment facilities. While the public is apparently less
receptive to such facilities than are mental health
professionals as a group, it also seems that within the
mental health professions there may be significant
differences as well.

An analysis of between-group differences on each of
the eight questions that comprise the CAS yielded seven
significant differences. On the question, "Would you
object if a halfway house for mentally ill people was
located in your neighborhood?", the proportions of CMH1
respondents (.90) and CMH3 respondents (.94) answering
"no" was significantly greater than the proportion
responding negatively (.56) from the MTH group. The
proportion answering "no" to "Would you object if a
halfway house for mentally ill people was located next
door to you?" was significantly higher for CMH1 (.87) and
for CMH3 (.87) than for either CMH2 (.51) or MTH (.38).
The proportion saying "no" from the PSY group (.77) was
also higher than that from the MTH group. On the
question, "Would you regularly participate in programs in
your neighborhood which help mentally ill people?", the
proportion responding "yes" from the CMH3 group (.92) was
significantly higher than that from the MTH group (.50).
No significant differences were found on the other five
questions, which pertained to believing ex-patients could
function well in the community, objecting to membership
in one's social club by a previously mentally ill person,
objecting to a previously mentally ill person moving in
next door, imagining oneself becoming close friends with
someone who is mentally ill, and helping a mentally ill
person to get a job where one works. The significant
differences that were observed suggest that community
mental health workers are generally more supportive of
community-based treatment facilities in their own
neighborhoods than is that segment of the public with
least exposure to mental health problems, although there
were differences even among the CMH samples.
Current Results and Previous Research

The Information Questionnaire

Even separate analyses of variance on each of the ten subscales of the IFQ did not reveal any significant between-group differences or any significant relationships with the demographic variables. It is possible, however, to compare subscale averages across the three student groups on the pretest with scores obtained from another public sample over twenty-five years ago. Values of the t statistic were obtained using Nunnally's (1961) sample means as the population values under the null hypothesis of no change over time. They were compared to Bonferroni critical values reflecting the 10 dependent variables under consideration. Five of the differences were significant at the .01 level and two more were significant at the .05 level. The results are summarized in Table 8.

Scores may range from one to seven on each subscale, with higher scores indicating a greater degree of stereotypy about mental illness. Most of the differences were in the expected direction of decreased stereotypy and greater conformity with the opinions of the mental health professionals surveyed by Nunnally. The CMH groups in the current study did not take the IFQ so
Comparison of Current Results with Previous Research on the IFQ (One-Sample t Tests)

<table>
<thead>
<tr>
<th>Information Factors</th>
<th>1961 Expert (N=176)</th>
<th>1961 Public (N=201)</th>
<th>1984 Student (N=62)</th>
<th>t Pub-Stu</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Look and Act Different</td>
<td>2.40</td>
<td>2.60</td>
<td>2.88</td>
<td>2.95*</td>
</tr>
<tr>
<td>II. Will Power</td>
<td>2.20</td>
<td>3.40</td>
<td>2.94</td>
<td>-4.55**</td>
</tr>
<tr>
<td>III. Sex Distinction</td>
<td>3.70</td>
<td>4.47</td>
<td>2.97</td>
<td>-12.38**</td>
</tr>
<tr>
<td>IV. Avoid Morbid Thoughts</td>
<td>3.50</td>
<td>4.53</td>
<td>2.77</td>
<td>-13.35**</td>
</tr>
<tr>
<td>V. Guidance and Support</td>
<td>4.20</td>
<td>5.00</td>
<td>3.45</td>
<td>-12.51**</td>
</tr>
<tr>
<td>VI. Hopelessness</td>
<td>2.30</td>
<td>2.85</td>
<td>2.58</td>
<td>-1.96</td>
</tr>
<tr>
<td>VII. External Causes</td>
<td>3.20</td>
<td>4.00</td>
<td>3.78</td>
<td>-2.58</td>
</tr>
<tr>
<td>VIII. Nonseriousness</td>
<td>3.60</td>
<td>3.48</td>
<td>2.94</td>
<td>-5.99**</td>
</tr>
<tr>
<td>IX. Age Function</td>
<td>2.40</td>
<td>3.07</td>
<td>3.42</td>
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<td>X. Organic Causes</td>
<td>2.60</td>
<td>2.75</td>
<td>3.06</td>
<td>2.90</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
** significant at the .01 level using a Bonferroni approach
there was no basis for a direct comparison. The largest decreases in stereotypy occurred on the Avoidance of Morbid Thoughts, Guidance and Support, and Sex Distinction subscales. Differences on the Nonseriousness and Will Power subscales were also significant at the .01 level. The Age Function and the Look and Act Different subscale, revealed differences significant at the .05 level, but in the directions of increased stereotypy. Differences on the External Causes and Organic Causes subscales were not significant.

The Semantic Differential

As with the IFQ, even a breakdown of the SD into four subscales for each of four concepts failed to reveal significant treatment effects or interaction with any of the demographic variables. But, as with the previous instrument, current results may be compared with those obtained in earlier studies. Nunnally (1961) made use of the SD along with the IFQ in a study of the relationship between beliefs and attitudes. Dividing total scores for each concept by the thirty items yields averages which, while based on a slightly different version of the SD, may be compared with Nunnally's data. The earlier study employed more than four concepts and was designed to assess, among other things, differences in ratings of Insane versus Neurotic, Old versus Young, and Male versus
Female.

The concept Average Man was employed to provide a reference point, and can be compared with the Average Person concept in the present study. Differences were compared using a one-sample t test, with the Nunnally sample mean treated as the population mean value under the null hypothesis. Pooling the data from the three student groups (total N = 54), it can be observed that their average rating of this concept is significantly lower (M = 4.43, SD = 0.51) than those for Average Male (M = 4.91) or Average Female (M = 4.73) in the Nunnally study, at the .01 level of significance. Average rating by the combined student group on the concept Mentally Ill Person (M = 3.78, SD = 0.57) is, on the other hand, significantly higher than the ratings by the earlier group on Neurotic Male (M = 3.04), Neurotic Female (M = 3.01), Insane Male (M = 2.65), and Insane Female (M = 2.68), also at the .01 level.

Wilkins and Velicer (1980) used an instrument and procedure similar to that employed in the current study to investigate the attitudes of school children toward the mentally ill. These investigators examined four concepts: Normal Person (AV) (Average Person was used in the present study), Mentally Retarded Person (MR), Mentally Ill Person (MI), and Crippled Person (CR), in terms of four subscales of the SD: Evaluation, Potency,
Activity, and Understandability. Although the form of the SD was slightly different, and a 5- versus a 7-point rating scale was used, transformed scores may be compared between the two studies. Pooling child groups (N = 40) and adult groups (N = 56), it can be observed from Table 9 that child-adult differences on both the

\[\text{TABLE 9}\]

Rating Differences Between Children and Adults on SD Subscales for the Concept MI (transformed score Ms, SDs, and ts)

<table>
<thead>
<tr>
<th>Subscales: Characteristics</th>
<th>EVAL</th>
<th>POT</th>
<th>ACT</th>
<th>UND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>4.85</td>
<td>3.94</td>
<td>3.30</td>
<td>5.51</td>
</tr>
<tr>
<td>SD</td>
<td>0.94</td>
<td>0.74</td>
<td>1.04</td>
<td>0.83</td>
</tr>
<tr>
<td>Adult Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>4.04</td>
<td>3.90</td>
<td>3.58</td>
<td>3.34</td>
</tr>
<tr>
<td>SD</td>
<td>0.36</td>
<td>0.40</td>
<td>0.46</td>
<td>1.19</td>
</tr>
<tr>
<td>t</td>
<td>-5.05** -0.26</td>
<td>1.66</td>
<td>-10.28**</td>
<td></td>
</tr>
</tbody>
</table>

** significant at the .01 level using a Bonferroni approach

Evaluation and Understandability Scales for the Mentally
Ill Person concept are significant at the .01 level, using a two-sample t test and a Bonferroni approach. Adults rated the concept less positively and as less understandable than did the children.

Although no significant relationship between sex and ratings was found in the present study for any of the subscales, Wilkins and Velicer found a significant sex effect on two of them. On the Evaluation scale, male children rated all concepts more positively than did females. On the Activity Scale they found that male children rated all concepts significantly less active than did the females. From the current results it would seem that if such sex distinctions do exist in childhood, they are molified in later years. No sex differences were found in either study on the Potency or Understandability Scales.

A significant concept effect was found by Wilkins and Velicer on the Evaluation subscale, with ratings for AV being more positive than those for either CR or MR, which in turn were rated more positively than MI. No significant difference was found between ratings of MR or CR. In the current study, adults rated MI significantly more negatively than they did AV or CR, but all other comparisons were insignificant. On the Potency Scale, in the child study, ratings on both AV and MI were found to be significantly more potent than those on MR or CR,
which were not significantly different from each other. Again, the current study showed significant differences between AV and MI and between MI and CR, with MI rated as less potent in both instances. There was also a significant difference between MR and CR, with the latter rated as more potent. On the Activity Scale, Wilkins and Velicer found AV and MI to be rated significantly more active than both MR and CR, while in the current study MI was rated as significantly less active than the other three concepts. The child study showed MI to be rated as significantly less understandable than the three other concepts, while the adult study revealed both MR and MI to be rated as less understandable than AV or CR. Means, standard deviations, F values, and t values for the current sample are presented in Tables 10 and 11.

Opinions About Mental Illness Scales

Administering the OMI to the treatment staffs of two large psychiatric hospitals, Cohen and Struening (1963, 1965) found significant score differences between white- and blue-collar workers, and between psychiatrists and nurses versus psychologists and social workers. Racial and ethnic differences have also been cited in past research with this instrument. Despite the significant group effects and interactions with certain demographic variables found in the current study with
TABLE 10
Characteristics and Comparisons of Ratings on the SD Subscales (raw score Ms, SDs, and Fs)

<table>
<thead>
<tr>
<th>Subscales: Concepts</th>
<th>EVAL</th>
<th>POT</th>
<th>ACT</th>
<th>UND</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV</td>
<td>47.71</td>
<td>29.82</td>
<td>41.48</td>
<td>13.70</td>
</tr>
<tr>
<td></td>
<td>6.68</td>
<td>3.60</td>
<td>5.68</td>
<td>2.55</td>
</tr>
<tr>
<td>MR</td>
<td>44.46</td>
<td>28.46</td>
<td>38.96</td>
<td>11.05</td>
</tr>
<tr>
<td></td>
<td>8.23</td>
<td>3.77</td>
<td>6.04</td>
<td>2.89</td>
</tr>
<tr>
<td>MI</td>
<td>40.39</td>
<td>27.30</td>
<td>35.79</td>
<td>10.02</td>
</tr>
<tr>
<td></td>
<td>6.03</td>
<td>4.41</td>
<td>6.82</td>
<td>3.27</td>
</tr>
<tr>
<td>CR</td>
<td>46.59</td>
<td>30.29</td>
<td>41.00</td>
<td>13.38</td>
</tr>
<tr>
<td></td>
<td>6.13</td>
<td>3.26</td>
<td>4.32</td>
<td>2.60</td>
</tr>
</tbody>
</table>

F 12.52** 7.16** 11.21** 22.14**

** significant at the .01 level using a Bonferroni approach

With respect to the CAMI, the OMI, with several similar subscales, did not reveal any significant differences. It should be noted that seven items from the original version of the OMI were inadvertently omitted from the questionnaire used in this investigation, and scale

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TABLE 11
Pairwise Comparisons Between Concepts on SD Subscales (t tests)

<table>
<thead>
<tr>
<th>Subscales:</th>
<th>EVAL</th>
<th>POT</th>
<th>ACT</th>
<th>UND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparisons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AV-MR</td>
<td>2.30</td>
<td>1.95</td>
<td>2.27</td>
<td>5.15**</td>
</tr>
<tr>
<td>AV-MI</td>
<td>6.09**</td>
<td>3.32**</td>
<td>4.80**</td>
<td>6.64**</td>
</tr>
<tr>
<td>AV-CR</td>
<td>0.92</td>
<td>-0.72</td>
<td>0.50</td>
<td>0.66</td>
</tr>
<tr>
<td>MR-MI</td>
<td>2.99*</td>
<td>1.50</td>
<td>2.60*</td>
<td>1.76</td>
</tr>
<tr>
<td>MR-CR</td>
<td>-1.55</td>
<td>-2.75*</td>
<td>-2.06</td>
<td>-4.49**</td>
</tr>
<tr>
<td>MI-CR</td>
<td>-5.40**</td>
<td>-4.09**</td>
<td>-4.83**</td>
<td>-6.02**</td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
** significant at the .01 level using a Bonferroni approach

Scores had to be prorated accordingly.

The Client Attitude Questionnaire

Morrison and his colleagues (1979b) have reported the CAQ scores of psychologists and social workers to be more indicative of a psychosocial orientation to the problem of mental illness, as compared to the more medical perspective of psychiatrists, psychiatric nurses,

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and previously hospitalized patients. The present analysis, which employed both forms A and B of the CAQ, failed to yield any significant between-group differences or, as noted previously, any interactions with demographic variables. As the ANOVA using work or profession as the breakdown variable was not significant, it is not appropriate to discuss the significance of pairwise comparisons. The group mean responses may be compared descriptively, however, with those presented in the earlier work, and the results, as summarized in Table 12, are similar hierarchical arrangements, with generally higher ratings in the Morrison studies. Psychologists and social workers scored highest, followed by other mental health and nursing professionals, with mental health technicians, those not working in mental health, and those not identifying their work or professions, at the bottom of the list. This is consistent with the claim of construct validity for this instrument.

Beliefs About the Nature of Mental Disorders Scale

Farina et al. (1978) and Fisher and Farina (1979) cited the results of administering the BANMD to college students in support of their contention that belief in a disease model of mental illness is associated with feelings of helplessness and dependency in dealing with mental health problems. Students exposed to a seminar
### TABLE 12
Comparisons of Scores on the CAQ Among Various Workers and Professionals in the Current and Earlier Studies

<table>
<thead>
<tr>
<th></th>
<th>Mean CAQ Scores</th>
<th>Past Studies*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Study</td>
<td>Past Studies*</td>
<td></td>
</tr>
<tr>
<td>Psychologist</td>
<td>40.35</td>
<td>49.25</td>
</tr>
<tr>
<td>Social Worker</td>
<td>40.34</td>
<td>45.76</td>
</tr>
<tr>
<td>CMH Administrator</td>
<td>39.50</td>
<td></td>
</tr>
<tr>
<td>MH Other Worker</td>
<td>38.07</td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>38.00</td>
<td>42.87</td>
</tr>
<tr>
<td>Non-MH Worker</td>
<td>37.99</td>
<td></td>
</tr>
<tr>
<td>MH Technician</td>
<td>37.82</td>
<td>41.06</td>
</tr>
<tr>
<td>Student</td>
<td>37.27</td>
<td>40.06</td>
</tr>
<tr>
<td>Nonrespondent</td>
<td>37.00</td>
<td></td>
</tr>
<tr>
<td>MH Clerical</td>
<td>33.34</td>
<td></td>
</tr>
</tbody>
</table>

* from Morrison (1979b)

endorsing such a model tended to place less value on thinking about their problems and felt they could do less personally to resolve them than was true of students attending a seminar which emphasized social learning theory. The former group was also more inclined to use
alcohol or medication to relieve stress, and to advocate their over-the-counter availability. The results led the researchers to question the value of current public service announcements which promote a disease concept of mental illness in an attempt to lessen the stigma associated with this problem.

In the present study an overall index of position on a medical-model versus social-learning-theory continuum was calculated by correcting each item for polarity on the continuum, and totalling them for each respondent. While there were no significant differences between groups on this total score, individual item scores may be compared with those from the earlier investigations. Only three of the questions revealed significant differences between groups, as summarized in Table 13. It would be consistent with the hypotheses to find nursing students more inclined toward a medical model than would be the community mental health workers, but the opposite trend was in fact observed. NSG students were significantly more oriented toward a social learning model than any of the CMH groups, as measured by their average response to the question, "Are mental health problems more the result of a disease or the result of social learning experiences?". They were also significantly more inclined than the CMH groups (or the MTH group) to respond to the question, "Does 'curing'
### Significant Pairwise Comparisons Between Groups on Questions from the BANMD (t tests)

<table>
<thead>
<tr>
<th>Questions:</th>
<th>Mental Illness is</th>
<th>Better therapy is:</th>
<th>Likely Result of:</th>
<th>Help:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 = disease</td>
<td>1 = verbal</td>
<td>1 = 100%</td>
<td>5 = 0%</td>
</tr>
<tr>
<td></td>
<td>5 = soc.learn.</td>
<td>5 = medical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparisons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH1-CMH2</td>
<td></td>
<td>-4.85**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH1-PSY</td>
<td></td>
<td>-4.15**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH1-NSG</td>
<td>-4.79**</td>
<td>3.94**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH2-MTH</td>
<td></td>
<td>3.98**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH2-NSG</td>
<td>-5.25**</td>
<td>7.02**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMH3-NSG</td>
<td>-3.46*</td>
<td>4.15**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant at the .05 level using a Bonferroni approach
** significant at the .01 level using a Bonferroni approach

Mental illness lie more in developing better verbal psychotherapy or better medically-based treatments?" by endorsing the former. The discrepancy between CMH1 and CMH2 on the question of "What is the probability that you would seek help at a mental health clinic?" indicates that significant differences can exist within the mental...
health field as well. There was also a significant difference on this third question between CMH1 and the PSY student group. No significant differences were observed between any group pair on questions pertaining to the stigma associated with mental illness, the importance of the client versus therapist role in treatment, the importance of thinking about and working toward solving one's own problems, or the reliance on drugs or alcohol to relieve emotional stress.

The Community Acceptance Scale

The total CAS scores, which showed significant group effects in the current investigation, as mentioned previously, can also be compared item by item with the earlier findings of Johnson and Beditz (1981), the developers of the scale. While the pooled CMH groups and the pooled student groups show no significant between-group differences on any of the eight items, significant differences do exist between the CMH group and the two samples from the original study, one which had supported the establishment of a community treatment facility and one which had opposed it. Specifically, the proportion of CMH respondents answering "no" to the "object to a halfway house in the neighborhood" question was significantly higher than the proportion of "no" answers (.64) in the community sample which favored the
treatment facility. The proportion for "no" responses was even smaller in the sample opposing the facility (.59), but the smaller sample size resulted in the difference between it and the CMH group being insignificant. On the question "object to a halfway house next door," the proportion of CMH respondents answering "no" was significantly higher than either of the two samples from the original study. No other between-group differences were found on the remaining questions.

Pretest-Posttest and Posttest-Follow-up Differences

The largest pretest-posttest difference, an increase on the Authoritarianism subscale of the OMI for the PSY group (t = 3.31), was not significant at the .05 level (using a Bonferroni approach), and was well above the next greatest difference, on the CAQ, for the PSY group (t = 2.13). From these results it would appear that the two-hour "demythologizing" seminar was not effective in producing changes in mental health attitudes, as measured by the OMI, CAMI, CAQ, BANMD, CAS, SD, TF, or IFQ questionnaires.
DISCUSSION

In this investigation an attempt was made to provide answers to various questions about community mental health attitudes. A number of traditional and contemporary attitude survey instruments were administered to several groups of college students and community mental health workers. Content and potency of contemporary attitudes were evaluated by comparison of current data with the results of earlier studies, and implications of the comparisons were sought for evaluating the effects of public education efforts in this area. An effort was made to evaluate the impact of a "demythologizing" approach to mental health education which endorses a psychosocial model over a medical one. Finally, the relationship between covert attitudes and overt behavior was examined. It was hypothesized that mental health information and attitudes had improved over time, that the medical model was still dominant among the public, that such a model is associated with feelings of helplessness and dependency with respect to solving mental health problems, that a psychosocial approach is associated with more positive attitudes toward the mentally ill and dealing with mental health problems, and that improved mental health attitudes are associated with better public treatment of those currently or previously
considered to be mentally ill.

Demographic Variables and Test Scores

Demographic variables were comparable between the pooled community mental health group and the pooled student group, and among the three subgroups within each. As far as interacting with group effects, sex was a significant variable on three subscales of the CAMI, mental health experience was a significant variable on one of the CAMI scales and the CAS, and race was a significant variable on one of the OMI subscales. The remainder of the demographic characteristics recorded in this investigation failed to show a significant relationship with any of the questionnaire scales and subscales.

Previous research on the attitudes of mental health workers has typically reported lower status personnel to be more authoritarian and restrictive in their attitudes toward patients than are higher status mental health "professionals" (Cohen and Struening, 1962, 1963, 1965). That this did not appear to be the case in the current study may reflect a greater socioeconomic homogeneity among community mental health workers compared to the treatment staff of the traditional psychiatric hospital upon which most earlier studies are based. It may reflect a greater similarity between community mental health

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workers and the community at large, who have not shown
the same consistency of relationships between attitudes
and demographic variables.

The negative findings might also be a result of the
crudity of the breakdowns on these demographic variables.
For example, another consistent finding in the area of
attitudes of mental health workers has been a strong
relationship between age and education of respondents and
rejection of the mentally ill (Rabkin, 1975). The failure
of either of these two variables to show a significant
interaction may have been the result of the small sample
sizes of the two experimental groups or the specific
breakdown ranges chosen. Age was broken down as follows:
0 to 19 years, 20 to 39 years, and 40 and above. This may
have been too crude to detect an existing correlation
with test scores. Likewise, the breakdown on education:
high school, college, graduate school; may have missed
subtle but important distinctions.

The relationship between mental health experience
and test scores must also be considered in light of the
specific breakdown on this variable. Respondents'
experience was categorized as primarily work-related,
school-related, or personal, without consideration for
the intensities or durations or the various combinations
of these types of experiences. In general, the finding of
lower Social Restrictiveness scores on the CAMI and
higher CAS scores for those reporting personal mental health experiences is consistent with the hypothesis of a better informed and more favorably disposed public.

As mentioned previously, the very small sample size in the "Other" category on Race makes comparisons with scores by "Whites" and "Blacks" rather limited. The lack of significant differences between the latter two groups is consistent with most earlier research findings, and such differences as have been reported typically disappear when other socioeconomic variables are controlled (Rabkin, 1975).

Comparisons With Previous Research

The results of the comparison of scores on the Information Questionnaire for the pooled student group versus the sample surveyed by Nunnally (1961) are generally consistent with the hypothesis of improved informations and attitudes in the public today, with significantly decreased stereotypy on 5 of the 10 subscales, with two nonsignificant differences in the expected direction. Two other changes are significant, however, in the direction of increased stereotypy. There appears to be greater tendency on the part of the current sample to believe that the mentally ill look and act different from those not mentally ill. There also appears to be a tendency to believe that susceptibility to mental
illness increases with age. Nunnally was able to compare the results of his public sample with a sample of mental health experts, as well as with ratings for how the media portrayed the mentally ill, in order to see which might be exerting influence on public opinion. He concluded that experts exerted a more potent and positive influence than that of the media. Unfortunately, neither of these comparison groups was included in the current study with this questionnaire, so such a comparison cannot easily be made. Data on the 1961 Expert sample were included in Table 8 for examination, however.

The results from the Semantic Differential, when compared to the data from Nunnally (1961) and Wilkins and Velicer (1981), indicate that if attitudes have improved over the past twenty or thirty years, they are still more negative toward the mentally ill than toward a normal reference group or toward other disability groups. Ratings of the mentally ill as high on activity and potency, but low on understandability have been thought to account for the negativity on the evaluation dimension. The significant difference between the adult sample in the current study and the child sample in the earlier study on the Evaluation and Understandability subscales is consistent with the hypothesis of improving attitudes and supports the existence of a relationship between understandability and evaluation. The implication
of this finding is that increasing understandability of mental illness may lead to improved attitudes toward and better community acceptance of the mentally ill.

Surprising was the relative insensitivity of the Opinions About Mental Illness scales to group differences, demographic interactions, and treatment effects, as it has been one of the most respected and widely used instruments in this area of research. This questionnaire was not originally designed to evaluate change, however, and combined with the inadvertent omission of seven of the original items, mentioned earlier, the results would have to be called equivocal.

While the ANOVA for scores on the Client Attitude Questionnaire, using work or profession as the breakdown variable, was not significant, Table 12 reveals a clear trend within the mental health field, with clerical staff at the low end, technicians in the middle, and clinical staff at the upper end of the scoring continuum. Relative positioning of psychologists and social workers, nurses, and students is also consistent with the findings summarized by Morrison (1979b), although scores generally were lower in the current study. One methodological difference in the current study was the use of both Forms A and B with the average of the two scores reported and compared with the earlier studies. Despite the high inter-test reliability reported by Morrison (1979b), Form
B scores in the present study were lower for almost every respondent in every group, sometimes by as much as 25% or more.

Subscale scores are not reported in the study by Taylor and Dear (1981) which focuses more on the development of the Community Attitudes Toward the Mentally Ill scales and discussion of its reliability and validity as an instrument to assess public reaction to the establishment of community-based treatment facilities. Therefore, no direct comparisons with their Toronto sample was possible. Between-group differences in the current study were consistent with the hypothesis that the public is more oriented toward a traditional model of psychiatric treatment than are community mental health workers, although there are differences within this second group. While correlations with five demographic variables were found in the original study, only sex and mental health experience, as mentioned earlier, were found to covary with subscale scores on the CAMI, all in the opposite direction from that reported earlier. In the present study, males scored higher on Authoritarianism, lower on Benevolence, and lower on Community Mental Health Ideology than did females. On the Social Restrictiveness subscale, those with personal mental health experience scored lower than those with work- or school-related or no experience.
Results on the Beliefs About Mental Disorders questionnaire went contrary to the expectation that community mental health workers would have a more psychosocial orientation compared to the more medical perspective of student nurses and others with less experience with the mentally ill, and seem inconsistent with the between-groups differences obtained with the CMHI subscale of the CAMI. In fact, all three of the community mental health groups endorsed a disease concept and emphasized a medical approach to therapy more strongly than did the nursing students. This may be the result of the increasing focus by community mental health on providing aftercare services to former chronic inpatients who are being maintained on medication and who appear to require more in the way of case management than they do ongoing psychotherapy. Apparently, it is possible to endorse a community-based treatment system that is medical in orientation.

The Community Acceptance Scale was designed to obtain reactions to specific questions about public acceptance of ex-mental patients and community-treatment facilities in their neighborhoods, rather than to assess attitudes about mental health and illness in general. Perhaps this is why it, along with the similarly specific CMHI subscale of the CAMI, did distinguish between groups in the present investigation. Such specificity has been

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endorsed (Rabkin, 1975) in the search for ways to measure and to influence community treatment of its mentally ill.

It was hoped that the Three Forces Inventory and the Three Approaches to Personality questionnaires would offer information relating different psychological orientations to attitudes toward the mentally ill. In fact scores on the Psychoanalytic, Behavioral, and Humanistic subscales did not appear to be significantly related to scores on the other measures, nor to any of the demographic variables.

Pretest-Posttest Differences

With respect to the failure of the "demythologizing seminars" to produce significant changes, the distributions of scores on the various instruments do not reveal any obvious "ceiling" or "floor" effects which might attenuate change scores. While unknown "historical" events can affect pretest-posttest differences, if there were such differences, they remain unknown. There were measurement conditions, however, that might well have affected test scores. The pretest, in an effort to make it comprehensive, was, according to respondent feedback, very long. It consisted of over 350 items and required nearly an hour for most of the respondents to complete. This undoubtedly contributed to the high dropout rate, approximately 33% pretest to posttest and 52% pretest to
follow-up. A shorter version, 90 items, which took about 15 minutes to complete, was used as the pretest for the CMH groups and as the follow-up measure for the student groups. While this probably enhanced the return rate, it limited the between-group and before-after comparisons that could be made.

Another measurement condition that likely affected the pretest-posttest score differences for the nursing group is the fact that the demythologizing seminar was, according to student feedback, too lengthy and repetitive of background information already obtained from the regular course instructor. This, combined with the presentation being offered as the final classroom event on a Friday afternoon, probably appreciably diminished its impact. The seminar was shortened to exclude some of the background information and a larger block of time was arranged before the presentation to the psychology group. Despite the insignificant pretest-posttest differences with this group as well, participant feedback, written and verbal, indicated that these modifications had been worthwhile and that the lecture-discussion had in fact influenced mental health attitudes of some in a positive way.

Attitudes and Behavior

Little mention has been made to this point of the
relationship between attitudes and overt behavior. Originally it was planned that scores on the different questionnaires would be compared for the nursing student group with ratings by their clinic supervisors. As it turned out, there was not enough variability in these ratings to make a meaningful comparison. It also did not appear that course grade was significantly related to any of the attitude scales for the nursing group.

Summary

In summary, several observations can be made. It does appear that the public is better informed and more favorably disposed toward the mentally ill than was true several decades ago; however, some stereotypes are still held, and the mentally ill are still regarded less favorably than are other disability groups. Workers in the community mental health field have not proven to be any less medically-oriented than the public at large, although they do endorse more strongly a community-based treatment approach. Whether or not a disease model of mental illness is associated with a sense of helplessness or dependency in dealing with mental problems has not been clearly established. Neither has the efficacy of a demythologizing approach to educating the public about such problems been demonstrated; however, the relationship between a better understanding of mental
illness and more accepting attitudes toward the mentally ill has been indicated. Finally, the relationship between covert attitudes and overt behavior has yet to be made clear.

As was stated in the Introduction, future research in this area requires the recognition of the multideterminate nature of both attitudes and behavior, and the selection of research designs, measurement instruments, and statistical analyses based on the specific goals of a given investigation. Behavioral correlates of attitude change must become the central focus of such efforts, to the point where it comes to assessing the probability of engaging in a particular behavior in a certain situation. It may be more useful, for example, to assess one's willingness to perform volunteer work in a halfway house for the mentally ill, rather than to attempt to measure some global characteristic such as authoritarianism, or even community mental health ideology.
APPENDIX

Outline for Demythologizing Seminar

Abnormal Psychology: Current Perspectives (Calhoun, 1977)

1. Abnormality: yesterday and today
2. The psychodynamic perspective
3. The behavioral perspective
4. The humanistic perspective

Psychiatric Myths (Morrison, 1979b)

1. Mental illness is an illness like any other.
2. Mental patients are more dangerous than the average citizen.
3. Mental illness strikes people regardless of social class, race, or sex.
4. Mental hospitals are usually therapeutic.
5. Mental patients are strange, bizarre, and ineffectual "nonpersons."
6. Psychiatrists and psychologists can tell what kind of mental illness a patient has by giving him various projective tests.
7. Psychiatrists and psychologists can distinguish a "mentally ill" from a "normal" person.
8. Mental patients have the same rights in society as do any other group.
9. A person just goes "crazy."

Popular Misconceptions (Coleman et al., 1980)

1. Abnormal behavior is bizarre.
2. Normal and abnormal behavior are different in kind.
3. Mental patients are unstable and dangerous.
4. Mental illness is something to be ashamed of.
5. Mental disorder is magical or awe-inspiring.
6. An exaggerated fear of one's own susceptibility.

The Crime of Commitment (Szasz, 1979)

1. Illness versus the sick role
2. Mental illness or undesirable behavior
3. Psychiatrist as slave master
4. Punishment without crime
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