Change in Attitudes toward Mental Illness as a Function of Mental Hospital Experience

Joseph Charles Bullington Jr.
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Abstract

This study compared 51 female and 42 male members of a health class at Georgia College on the Opinions About Mental Illness Scale (OMI), the Attitudes Toward Behavior Modification Scale, and the Marlowe-Crowne Social Desirability Scale. Also, nine members of the professional staff at Central State Hospital completed the OMI and the Attitudes Toward Behavior Modification Scale. The students were divided into four groups: group one completed a pre-test and took part in the hospital volunteer program; group two completed a pre-test but did not participate in the program; group three participated in the program; and group four did not participate in the program; all four groups completed a post-test on all three instruments subsequent to the hospital experience. It was predicted: (1) that the participant groups would show greater attitude change on the OMI, (2) that scores on the OMI would be correlated with scores on the Marlowe-Crowne scale, (3) that high scorers on the Marlowe-Crowne scale would also show greater attitude change on the OMI, and (4) that participants and non-participants would differ significantly on the Marlowe-Crowne scale. Only hypothesis four was supported, \( t(91) = 1.81, p < .05 \). The results were discussed in four areas: the limitations of the volunteer program, the appropriateness of the factor structure of the OMI, the relationship between social desirability and attitudes toward mental illness, and the effects of gender.
Though the objectives of the mental health establishment lie in continuing improvement in the quality of services provided, the manpower necessary to carry out these objectives is inadequate (Albee, 1959; Srole, Langer, Michael, Opler, & Rennie, 1962). One solution to this problem has been the utilization of non-professional volunteers in mental health settings (Rieff & Riessman, 1965). These volunteers have been used most often as companions to patients, with the hope that through this companionship they may serve as agents for therapeutic change (Gruver, 1971).

The college student volunteer population forms a large part of the volunteer manpower force, and has been perhaps the most successful in working with disturbed persons (Gruver, 1971). Several reasons have been postulated for this success; for one thing, college students seem to exhibit less resistance to and more motivation for face to face contact with patients than older volunteers (Greenblatt & Kantor, 1962). Umbarger, Dalsimer, Morrison, and Breggin (1962) suggest that a combination of the crusading spirit against mental illness and the altruistic novelty of the task is responsible for the success. Gruver (1971) attributes the success of college students to a lack of professional training and status. He argues that empathy is the most important criterion for an effective therapeutic relationship. Further, because of certain similarities in the roles of college students and mental patients he reasons that students may be more able to engage the mental patient in an empathic relationship than the often over-worked professional. The result, according to Gruver's reasoning, is greater therapeutic success for the student.
Finally, it has been suggested that similarities in the institutional structure of colleges and hospitals and the goals of these institutions for their inhabitants is responsible (Keniston, 1967).

The personal characteristics of college student volunteers has been a topic of interest to some investigators. Gelineau and Kantor (1964) reported on the personal characteristics of Harvard and Radcliffe students who were regular hospital volunteers. They found that these volunteers were typical students, but that they differed in their occupational aspirations, preferring mental health careers to business, law, or natural science careers. Knapp and Holzberg (1964) compared college student volunteers with a student control group at Wesleyan University. Using data obtained from the MMPI and several other psychological tests, these authors again found that the volunteers differed from the control group students in that they were more morally concerned, personally compassionate, and introverted. Iguchi and Johnson (1966) and Ralph (1968), using the Custodial Mental Illness Ideology Scale (Gilbert & Levinson, 1965), found that students participating in companion programs exhibited more humanistic attitudes toward mental illness than students in control groups. Hersch, Kulik, and Scheibe (1969) conducted a more detailed study of college student volunteers. They administered personality and vocational interest tests and a biographical questionnaire to 151 volunteers and 142 other students. Results indicated that the volunteers exhibited maturity and control, a drive for independent achievement, and sensitivity to distressed individuals. Vocational interests were in the social service professions, and autobiographical data suggested that the volunteers were more service-oriented and more dedicated to mental health service than the other students.
The justification for continuation of college student volunteer programs rests on the effectiveness of these programs, both in dealing with the problems of patients and as learning experiences for the students. A number of studies have been conducted in an attempt to assess the effects of volunteer programs on students and patients. One of the first attempts to assess the effect of student volunteers on mental patients was at Harvard University (Umbarger, Dalsimer, Morrison, & Breggin, 1962). Within a one year period, 11 of the 14 chronically psychotic patients who were visited by students had been released. In a follow-up study of 120 chronically psychotic patients, 37 left the hospital while working with students, and 28 of these remained out of the hospital for an average of 3.4 years. No data were offered comparing discharge rates of non-visited patients. Holzberg, Knapp, and Turner (1967) collected psychological test data to compare patients in a companion group of 13 with a control group of 30 patients. The companion group scored lower on the Depression scale of the MMPI. A slightly lower score on the Paranoid scale failed to reach statistical significance. A study by Chinsky and Rappaport (1970) used Gough's Adjective Checklist (Gough & Heilbrun, 1965) to measure patient attitudes toward physicians and college students before and after exposure to a student volunteer. Subsequent to a series of interactions over a five month period, patients described students as significantly more nurturant than they had rated them prior to the companion period. Bergman and Doland (1974) used the Inpatient Multidimensional Psychiatric Scale (IMPS) (Lorr & Klett, 1966) to evaluate behavioral change during a 12 week period, in a group of patients who were seen by college student "case aides" and a second group of patients who served as a control group. The experimental group showed
improvement on four of the IMFS subscales; Paranoid Projection, Anxious Intropunitiveness, Retardation and Apathy, and Conceptual Disorganization. Follow-up data revealed that several of these patients had been either discharged or placed on less restrictive wards.

Research on the effects of companion programs on student participants has been largely concerned with changes in personality measures and changes in measures of attitudes toward mental illness concepts. Holzberg and Gewirtz (1963) administered a 23 item questionnaire concerning attitudes toward mental illness to two groups of college students at the beginning and end of the academic year. One group participated in a companion program while the other group was involved in other social service activities in the community. Results indicated that the companion group increased their knowledge concerning the problem of mental illness and developed more enlightened and informed opinions regarding mental illness compared to the social service group. Holzberg, Gewirtz, and Ebner (1964) compared participants in a companion program with a group of student controls on a questionnaire designed to measure attitudes toward sexual and aggressive behaviors. At the initial administration the companion group proved more severe in their judgments than the control group. However, at the final administration the companions had become less severe in their judgments compared to the initial administration whereas the control group showed no change. Scheibe (1965) collected data on a group of students who lived at a state hospital for eight weeks as part of the state of Connecticut's Service Corps Program. Gough's Adjective Checklist was administered at the beginning and end of the program. Results indicated that students described mental patients in more positive terms at the end of the eight
week period than they had prior to the experience. In describing themselves, the students exhibited significant gains in Achievement, Dominance, Self-Confidence, and Nurturance. Kulik, Martin, and Scheibe (1969), using the Opinions About Mental Illness Scale (Cohen & Struening, 1962), found that, following hospital experience, students in a companion program exhibited more negative attitudes concerning mental hospitals, but more positive attitudes concerning patients as compared to a student non-participant control group. Chinsky and Rappaport (1970) reported similar findings in their students using Gough's Adjective Checklist. Keith-Speigel and Speigel (1970), using the Custodial Mental Illness Ideology Scale (Gilbert & Levinson, 1965), reported that companion students' attitudes changed in the direction of a more humanistic view of mental illness and a more realistic view of psychiatric patients. Kish and Hood (1974) found significant positive changes in students' conceptions of psychiatric patients, using the Nurses Observation Scale for Inpatient Evaluation (Honigfield, Gillis, & Klett, 1966).

There are several reports which contradict the findings reported above. For example, Langmeyer (1968), using the Opinions About Mental Illness Scale (OMI), obtained data on students participating in a hospital volunteer program. The results indicated no significant positive change in attitudes on any of the five subscales of the instrument. Shashin (1969) predicted that participation in a hospital volunteer program would result in significant modification in the meanings of mental health concepts. Using a semantic differential to measure attitudes, he tested four groups of students: the participants in the program, a group who originally expressed interest in the program but did not participate, a group who
participated in volunteer programs unrelated to mental health, and a group of students who were involved only with academic work. The results indicated no significant changes in the attitudes of the participant group as compared to the other groups. Dalia (1974) also predicted that significant attitude change would occur among the participants in a hospital volunteer program as compared to a control group who expressed interest in the program but did not participate. While the participant group changed significantly on two of the five subscales of the OMI, the control group also changed significantly on these two subscales. Again using the OMI, Sullivan (1974) found a significant increase on the Mental Hygiene Ideology subscale and a significant decrease on the Benevolence subscale, but no other changes among student volunteers. Jeger and McClure (1976) contributed data on the comparative effectiveness of behavior modification classroom training versus field training in influencing students' general orientations in the mental health field, and their attitudes toward behavior modification. Using the Attitudes Toward Mental Illness Scale (Morrison, 1976) and the Attitudes Toward Behavior Modification Scale (Musgrove, 1974) these authors found that only the field group significantly changed their attitudes toward behavior modification in a positive direction, while neither group showed significant change in their orientation toward mental illness. Shipley (1976), using student volunteers, patients, and comparable controls, found contradictions between the subjective evaluations of the program by students and patients, which were positive, and objective outcome data, which were negative. These findings in combination with an earlier warning by Gruver (1971) concerning methodological deficiencies of previous studies suggest caution in interpreting findings indicating the positive effects of
participation in volunteer programs.

Clearly, the results of research concerning the effects of a mental hospital experience on student volunteer attitudes toward mental illness are contradictory. These results may be explained, in part, by individual differences in the subjects' responses to questionnaires. Factors other than the students' attitudes toward mental illness may influence the responses to attitude scales. The problem of response distortion in objective psychological assessment instruments, which concerns the assumption by test constructors that a subject will accurately report his feelings and behavior, has been addressed by several authors. In general, these investigators have approached the problem from two perspectives. The first group (Meehl & Hathaway, 1946; Cronbach, 1946, 1950) sees response distortion as a source of error variance to be eliminated in the construction of tests, while the second group (Edwards, 1957; Jackson & Messick, 1958; McGee, 1962; Crowne & Marlowe, 1964) sees response distortion as an individual difference construct important in its own right. In this area of research the social desirability factor has been perhaps the subject of more research than any other factor. The principle investigators in the area of social desirability have been Edwards and his students, and Marlowe and Crowne and their students.

Edwards (1957) defined social desirability in two ways: (a) the social desirability scale values of personality or other statements, and (b) the tendency of subjects to attribute to themselves, in self description, personality or other statements with socially desirable scale values and to reject those with socially undesirable scale values. Edwards (1953) attempted to identify social desirability as a factor in subjects' responses
to personality test items through the use of a scale on which subjects rated the social desirability value of personality test items. His findings indicate that as the social desirability scale value of an item increases, the probability that the item will be endorsed also increases. Cowen and Tongas (1959), Rosen (1956), and Wiggins and Rumrill (1959), among others, have applied Edwards' method to a variety of personality tests, reporting findings similar to his original results.

Edwards (1957) also developed a social desirability scale to further investigate individual differences in the social desirability construct. The Edwards Social Desirability Scale (SD) consists of 39 items chosen for their high social desirability values from an original pool of 150 items from the F, L, and K scales of the MMPI, and from the MMPI items which comprise the Taylor Manifest Anxiety Scale (Taylor, 1953). In general, the results of research with the Edwards SD scale (Edwards, 1957, 1961; Edwards & Diers, 1962; Edwards & Heathers, 1962) indicate that the social desirability factor accounts for a substantial portion of the variance in the MMPI and other personality instruments. Edwards and Walker (1961) proposed that the Edwards SD scale be used as a universal test of personality, using scores on the SD scale to predict scores on the MMPI and other measures.

Crowne and Marlowe (1960) criticized the Edwards SD scale. They were concerned with the concept of statistical deviance and its relation to SD scale construction and interpretation. In the construction of his SD scale, Edwards chose only the items on which there was unanimous agreement as to the judged social desirability of the items. According to Crowne and Marlowe then, these items would have extreme social desirability scale positions or, be statistically deviant. They note that since these items were
chosen from scales such as the MMPI, their content usually contains some pathological implications. Thus, high scores on the Edwards SD scale may simply reflect a lack of psychopathological symptoms in the respondent. Crowne and Marlowe define social desirability as:

a need for social approval and acceptance and the belief that this can be attained by means of culturally acceptable behaviors. In a psychometric situation, a high need for social approval would be inferred from a person’s attribution of culturally approved statements to himself and the denial of culturally unacceptable traits .... A low need for social approval implies a degree of independence of cultural definitions of acceptable behavior (Marlowe & Crowne, 1961, pp. 109-110).

They constructed the Marlowe-Crowne Social Desirability Scale with two specific objectives in mind: (a) the ability to discriminate between the effects of item content and the influence of motives, and (b) the elimination of items with psychopathological content. The scale itself consists of 33 statements, half of which are keyed true and half keyed false. It correlates significantly with the Edwards SD scale and with most of the subscales of the MMPI (Crowne & Marlowe, 1960). The difference in the two SD scales lies in the magnitude of the correlations with the MMPI, with the Edwards scale obtaining much higher correlations than the Marlowe-Crowne scale. Early research with the Marlowe-Crowne SD scale emphasized the prediction of behavior in non-test situations. Marlowe-Crowne scores have been shown to predict: conformity in a modified Asch situation (Strickland & Crowne, 1962); the favorability of attitudes expressed
after a boring task (Marlowe & Crowne, 1961); and the conditioning of verbal behavior (Crowne & Strickland, 1961; Marlowe, 1962).

In the preceding discussion of the social desirability factor, it was noted that some people are more likely than others to attribute socially desirable statements to themselves. In like manner, when confronted with a statement expressing a socially desirable attitude, some persons may be more likely than others to attribute that attitude to themselves. Several published studies review the construct of social desirability and its relationship to attitude measurement and change.

In this line of research, two methods have been used; the item scaling technique developed by Edwards (1953), and the psychometric instruments designed to assess social desirability as a personality trait (Edwards, 1957; Crowne & Marlowe, 1960). Taylor (1961) applied the social desirability scaling of items technique developed by Edwards (1953) to the items of six attitude scales. The results indicate that, for the attitude scales studied, items have definite social desirability values, that persons' responses to these values differ, and that a substantial amount of variance in the attitude scale scores can be explained as being due to this general response tendency. Goldstein (1960), using the Edwards SD scale (Edwards, 1957), investigated the relationship between social desirability, high and low fear propaganda appeals concerning dental hygiene, and attitude change. He predicted that persons who conformed to the propaganda would score higher on the SD scale than those who did not conform. He found that in the high fear appeal, high SD scores were associated with conformity in males, and in the low fear appeal, low SD scores were associated with increases in conformity in females. The author suggests that SD does appear to be a factor in atti-
tude change and emphasizes the need to control for the effects of this variable because of the difficulty in predicting the type of effect which SD will have. Buckhout (1965) predicted that verbal reinforcement of the public verbalization of counterattitudinal statements would lead to attitude change. Using scores on the Marlowe-Crowne SD scale, he found differences between groups varying in need for social approval (high vs. low SD responders). High SD responders shifted significantly more toward conformity than a control group while low scorers showed a non-significant conformity shift compared to controls. A 30 day follow-up testing session yielded results in the same direction. Feinburg (1966), also using the Marlowe-Crowne scale, found significant differences in attitudes toward disabled persons between subjects having high, medium, and low need for social approval. Levin (1977) studied the effects of labeling and social desirability on attitudes of mental health professionals toward mental illness. She predicted that subjects high on social desirability as measured by the Marlowe-Crowne SD scale would score higher on the Benevolence, Mental Hygiene Ideology, and Interpersonal Etiology subscales of the Opinions About Mental Illness Scale (Cohen & Struening, 1962). The results indicated that these subjects instead scored higher on the Authoritarianism and Social Restrictiveness subscales of the instrument and lower on the Mental Hygiene Ideology subscale. The findings of these studies provide some support for the hypothesis that the social desirability factor may have influenced the results of previous investigations concerning attitude change in college students participating in volunteer programs.

The present study will investigate three sources of variance in reported changes in attitudes toward mental illness among participants in a
volunteer program in a psychiatric facility: (a) the potential effect of the social desirability factor on the assessment of attitudes toward mental illness; (b) the potential influence of a pre-test measure of attitudes on the post-test measure taken following the hospital experience; and (c) the effect of participating in a volunteer program in a state psychiatric facility. Hicks and Spaner (1962), in a study using student nurses found that a group of nurses given a pre-test measure of attitudes demonstrated significantly more positive attitudes on a post-test measure than a group who only completed a post-test. These results suggest that post-test scores of subjects who have been pre-tested prior to experimental treatment will be biased in a positive direction. The present study will seek to clarify these issues through the use of an experimental design to control for the potential effect of the pre-measure on the post-participant measure (Campbell, 1957), and through the use of an instrument to assess the potential influence of the social desirability factor on the process of attitude change. It is hypothesized that: (1) participants will show significantly greater attitude change, as reflected by scores on all subscales of the Opinions About Mental Illness Scale and the Attitudes Toward Behavior Modification Scale than non-participants on the post-test administration of the instruments; (2) scores on the Marlowe-Crowne Social Desirability Scale will correlate significantly with scores on the five subscales of the Opinions About Mental Illness Scale; (3) those participants who score above the median on the Marlowe-Crowne Social Desirability Scale will demonstrate more favorable attitudes on the post-test attitude measures than those scoring below the median on the Marlowe-Crowne scale; (4) members of the participant group will score significantly lower on the
Marlowe-Crowne scale than members of the non-participant group.

Method

Subjects

There were 42 male and 51 female students enrolled in health courses at Georgia College, Milledgeville, Georgia, and nine members of the professional staff at Central State Hospital, where the students participated in a volunteer program, who served as subjects in this study. Members of the professional staff worked in the Regional Division Center of Central State Hospital. Professional groups represented included: one psychologist (PhD), four nurses (RN), and four social workers (MSW). The responses of these staff members were used for purposes of comparison to the responses of the student volunteers.

Apparatus

The Opinions About Mental Illness Scale (Cohen & Struening, 1962), the Attitudes Toward Behavior Modification Scale (Musgrove, 1974), and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) were administered to the students. The OMI and the Musgrove scale were completed by the professional staff members.

The OMI consists of 53 statements dealing with general opinions toward the mentally ill and mental illness concepts. The authors of the scale found five general factors of attitudes toward mental illness, which they describe as follows:

Factor A- Authoritarianism... a gestalt made up of authoritarian submission and anti-intraception with a view of the mentally ill as a class inferior to normals and requiring coercive handling.
Factor B- Benevolence...a kindly, paternalistic view towards patients whose origin is in religion and humanism rather than a scientific or professional dogma. It is encouraging and nurturant, but still acknowledges some fear of patients.

Factor C- Mental Hygiene Ideology...the idea that mental patients are much like normal people, differing from them perhaps in degree, but not in kind, in sharp contrast with the Factor A orientation.

Factor D- Social Restrictiveness...the belief that mental illness is a threat to society which must be met by some restriction in social functioning both during and following hospitalization.

Factor E- Interpersonal Etiology...a belief that mental illness arises from interpersonal experience, particularly deprivation of parental love and attention during childhood. Somewhat less central is a belief that abnormal behavior is motivated, e.g., mental illness is an avoidance of problems (Cohen & Struening, 1962, pp. 352-355).

The Attitudes Toward Behavior Modification Scale (Musgrove, 1974) is a 20 item instrument developed originally to measure the attitudes of teachers toward behavior modification. It has since been used by Jeger & McClure to assess attitude change in college students following a behavior modification training program. The 20 items of this scale were imbedded in the OMI scale in a random fashion.

Procedure
The students in this study were divided into four groups following the method suggested by Campbell (1957) for the Solomon four-group-design. This method can be described as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test</th>
<th>Treatment</th>
<th>Post-test</th>
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<tbody>
<tr>
<td>Group I</td>
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<td>Group II</td>
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<tr>
<td>Group III</td>
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<tr>
<td>Group IV</td>
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<td>21</td>
</tr>
</tbody>
</table>

The OMI, the Musgrove scale, and the Marlowe-Crowne scale were administered to the students during regular classroom sessions. Groups III and IV were tested once with all instruments after completion of the hospital experience. Groups I and II were tested once with the Marlowe-Crowne scale after the participant period, and twice with the OMI and the Musgrove scale, before beginning and after completion of the hospital experience. All subjects were required to read and sign an informed consent form before administration of the questionnaires. Students were instructed to place an X in the upper right hand corner of their answer sheets if they participated in the hospital experience, and an M or F to indicate gender. This procedure insured the subject's anonymity and controlled for the possible biasing effects of subject identification on the Marlowe-Crowne scale (Becker, 1976). The two answer sheets were folded together as they were handed in.

OMI scales, Musgrove scales, and informed consent forms were distributed to professional staff members through the office of Planning, Evaluation, Research, and Training at Central State Hospital. The following instructions were included:

You are being asked to complete the following questionnaire as part of a study dealing with attitude change in college.
student volunteer mental health workers. Please check only
one blank per item, and be sure to answer all of the items.
Place one of the following letters in the upper right hand
corner of your answer sheet:

W if you are a psychiatrist

X if you are a psychologist

Y if you are a social worker

Z if you are a nurse

Your cooperation in this endeavor will be greatly appre¬ciated. This study has been approved by the office of Planning, Evaluation, Research, and Training at Central State Hospital.

In summary, there were three independent variables. First, the variable labeled treatment contains two levels, participation versus non-participation in the hospital volunteer program. Secondly, there were two levels on the status dimension: level one students completed a pre-test prior to the time of participation in the program and a post-test after the participation period. Level two students completed a post-test only. The third independent variable in this study was gender. Six criterion measures were employed, the post-test scores on the five subscales of the Opinions About Mental Illness Scale and the Attitudes Toward Behavior Modification Scale. Social desirability, as assessed by the Marlowe-Crowne Social Desirability Scale, was used as a covariate.

Results

A three way analysis of variance was conducted on the criterion measures with the following results (source tables for the ANOVA are located
in Appendix C). On the Benevolence subscale, a main effect for gender was significant, \( F(1,84) = 12.53, p < .01 \). Females had higher scores on this subscale than males, thus indicating that females feel more benevolent toward mental patients than males. On the Mental Hygiene Ideology subscale, main effects for status, \( F(1,84) = 16.69, p < .001 \), and gender, \( F(1,84) = 6.78, p < .01 \), were significant. The first finding on this subscale indicates that those students who were given a pre-test and a post-test scored higher on this subscale on the post-test than those students who were given only a post-test, suggesting a possible gain in knowledge about mental hygiene during the quarter by the students independent of any hospital experience. The second of these findings suggests that, because females had higher scores than males, they are more knowledgeable about mental hygiene and hold more humanitarian opinions about mental illness. There was a two-way interaction between gender and status on the Social Restrictiveness subscale, \( F(1,84) = 3.87, p < .05 \). An analysis of simple main effects suggests that the source of this interaction lies in the effects of pre-testing on gender, \( F(1,84) = 5.46, p < .05 \), resulting from lower scores on the pre-test measures of females (see Figure 1). On the Interpersonal Etiology subscale, there was a two-way interaction between gender and treatment, \( F(1,84) = 7.45, p < .008 \). An analysis of simple main effects indicates that the source of this interaction lies in the effects of participation in the hospital experience on gender, \( F(1,84) = 3.57, p < .10 \), resulting from higher scores on this subscale by male participants (see Figure 2). In addition, this interaction suggests that the hospital experience had differential effects on male and female participants. On the Attitudes Toward Behavior Modification Scale, the effect of the covariate, \( F(1,84) = 4.53, p < .03 \), and a main effect for gender, \( F(1,84) = \)
6.99, p < .01, were significant. When combined with the \( t \)-test results described below, these findings suggest that those students who score high on the Marlowe-Crowne scale and who are then, by definition, high in need for social approval, tend to endorse behavioral treatment methods more often than those students who are low in need for social approval. It further suggests that females tend to endorse behavior modification more strongly than males.

No significant correlations were obtained between scores on the Marlowe-Crowne Social Desirability Scale and post-test scores of the five subscales of the Opinions About Mental Illness Scale.

\( t \)-tests for independent samples were conducted between Marlowe-Crowne scale scores divided at the median into groups of high and low scorers for each subscale of the OMI and the Musgrove scale. Significant differences were found for the Interpersonal Etiology subscale of the OMI, \( t(91)=2.58, \ p<.01 \), and the Attitudes Toward Behavior Modification Scale, \( t(91)=2.77, \ p<.005 \), in both cases indicating that a person who scored high on the Marlowe-Crowne scale also scored high on the attitude scales. A \( t \)-test conducted between participant and non-participant scores on the Marlowe-Crowne scale also yielded significant results, \( t(91)=1.81, \ p<.05 \), indicating that non-participants scored significantly higher than participants on the Marlowe-Crowne scale. This finding suggests that there may be basic personality differences related to social desirability, between this group of participants and non-participants.

**Discussion**

The results of the present study suggest that the attitudes toward mental illness of students who participated in a volunteer program at
Figure 1

Interaction between sex and status on the Social Restrictiveness subscale
Figure 2.

Interaction between sex and treatment on the Interpersonal Etiology subscale
Central State Hospital were not influenced by this experience. No support was obtained for a hypothesized relationship between scores on the Marlowe-Crowne Social Desirability Scale and scores on the five subscales of the Opinions About Mental Illness Scale. However, a predicted difference between participants and non-participants in the hospital program on the Marlowe-Crowne scale was supported.

The absence of treatment effects with regard to attitudes toward mental illness is perhaps best understood in relation to the structure of the volunteer program itself. Factors over which the investigator had no control are worth noting. First, the volunteer program at Central State Hospital differs from those programs which have been the subject of previous investigations (see Appendix A for details of the volunteer program at Central State Hospital). These earlier programs, in most cases, required the student to spend two or more hours per week at the hospital, for a period of one academic year. Most of this time was spent interacting with the student's "companion," a patient chosen by the student, but at least one hour per week was set aside for a supervisory session during which the student discussed problems relating to his or her activities at the hospital with a member of the hospital's professional staff. In contrast, participants in the present program were only required to spend 10 hours at the hospital during one quarter. Given these circumstances, the results of the present study can perhaps be more clearly understood as a reflection of the differences between earlier, more highly structured volunteer programs within mental hospitals and the present program. Secondly, the volunteers in this program can be more accurately described as "compulsory volunteers" (Kish, 1973). The criterion for selection into this program is not, as in earlier
programs, whether the student wants to participate or not, it is rather an alternative between writing a paper on some aspect of health or participating in the volunteer program at Central State Hospital. Given these alternatives, it is suspected that the basic motivation for participating in the program may not be the same for these students as compared with students in other programs. Whereas the students who participate in other programs may be motivated by more altruistic or humanitarian considerations, many students in the present program may be motivated because they do not wish to write a paper. Thirdly, students in the present program often had little or no contact with traditional psychiatric patients (chronic or acute psychoses, neuroses, etc.), because they are placed where manpower needs were greatest. Thus, most students spent their time working with geriatric or mentally retarded patients. The Opinions About Mental Illness Scale is oriented toward more traditional patient subgroups. Therefore, preconceived opinions about more traditional patients may not have changed very much if the student had little or no contact with them. Fourthly, the present program, unlike earlier programs, was not intended to change student opinions toward the mentally ill. If it had been, then the students would surely have been exposed to more traditional patient categories instead of retardates or geriatric patients. If a student is not given the opportunity to observe life on a psychiatric ward, then he or she has no way to form objective opinions about mental patients. Fifth, students in the present program had little opportunity to come in contact with professional staff members. The results of a study by Smith (1969) indicated that the attitudes of student nurses changed toward conformity with the treatment staff following a 10 week hospital program. There were signifi-
cant differences between staff and student opinions on the Authoritarianism and Social Restrictiveness subscales of the OMI in the present study, \( t(100) = 3.35, p < .0005 \), and \( t(100) = 1.7, p < .025 \), for each subscale respectively. Considering that responses on these two subscales account for over fifty percent of the variance on the OMI (Cohen & Struening, 1962), this finding suggests a lack of conformity with the attitudes of professional staff members. A sixth factor to be considered is regional differences. Because most of the research in this area has been conducted in the Northeastern section of the country, there is little data to be found concerning the opinions about mental illness of persons in the Southeast. Therefore, while the former investigators speak in terms of the general college student population, their conclusions may not be generalizable. There is a need for further study to investigate regional differences in the area of opinions about mental illness, as well as further study utilizing students from more highly structured volunteer programs in this geographical region.

The \( t \)-test results reported above suggest a gap between scores on the Authoritarianism and Social Restrictiveness subscales of the OMI for the student groups and the professional staff members. While as mentioned above this may indicate little contact with professional staff members and, therefore little chance to come in contact with more informed opinion, Table 1 (see Appendix B) indicates that the students and staff share the same opinions in a number of areas. This finding may be related to a problem with the OMI first identified by Kulik, Martin, and Schiebe (1969). Whereas Cohen and Struening (1962; Struening & Cohen, 1963) reported factor analytic results suggestive of five factors, which became the OMI subscales, Kulik, et al. (1969) challenged the five factor solution. Using factor ana-
lytic techniques on the items of the OMI, Kulik, et al. generated three clusters of items dealing with, (a) the etiology of mental illness, (b) the function of the mental hospital, and (c) the characterization of the mental patient. Their findings indicate a difference in the way a student viewed a patient (more positive) and the way he or she viewed the mental hospital (more negative) following a mental hospital experience. Chinsky and Rappaport (1970), using the Adjective Checklist, again obtained results indicating positive attitudes toward patients and negative attitudes with respect to the mental hospital. The findings of Keith-Spiegel and Spiegel (1970), using the Custodial Mental Illness Ideology Scale, and Kish and Hood (1974), using the Nurses Observation Scale for Inpatient Evaluation suggest a more humanitarian, less custodial view of mental patients following a hospital experience. In view of this evidence, it is suggested that the concept of authoritarianism relating to attitudes toward mental illness contains two components, (a) attitudes relating to the patient, and (b) attitudes relating to the institutional structure of the mental hospital. If these components are separated, as several investigators have done, one sees a different type of profile on the OMI and other instruments, enabling the results to be more accurately interpreted. It is further suggested that any future work with the OMI take into account the contribution of attitudes toward the institutional structure. Perhaps the items comprising the OMI should be subjected to additional factor analytic study to arrive at an alternative factor structure which would address this difficulty.

A further shortcoming with respect to the OMI concerns its utility in the measurement of short-term attitude change. This shortcoming was addressed by Kish and Stage (1973) as follows:
The various factors of the OMI, the authoritarian factor in particular, measure fairly stable personality traits which might not be expected to change easily, particularly in response to a few weekly hours of patient contact. Perhaps more sensitive measures of attitude and knowledge of mental illness which may be less correlated with basic personality dimensions would show some effects (p. 15).

The findings of the present study suggest that the social desirability factor is substantially related to expressions of acceptance of behavior modification ideology. While there were no differences between participant and non-participant groups on the Musgrove scale, high social desirability responders expressed significantly greater acceptance of the items which comprise the Musgrove scale, $t(91) = 2.77, p < .005$.

The relationship between attitudes toward mental illness and social desirability remains unclear. Previous studies have consistently demonstrated a relationship between these factors (Goldstein, 1960; Taylor, 1961; Buckhout, 1965; Feinburg, 1966; Levin, 1977); the use of the social desirability factor as a covariate in the present study was founded on the evidence provided by these earlier investigations. The findings of the present study with regard to this relationship were: no significant effects for the covariate on any of the OMI subscales, no significant correlations between social desirability and the subscales of the OMI, a significant difference between high and low scorers on the Marlowe-Crowne scale on the Interpersonal Etiology subscale, $t(91) = 2.58, p < .01$. On the Musgrove scale, the covariate had an effect, $F(1,84) = 4.53, p < .03$, and there was a significant difference between high and low scorers on the Marlowe-Crowne scale.
on the Musgrove scale, \( t(91) = 2.77, p < .005 \). These findings suggest two general alternatives. First, that the relationship between attitude measurement and social desirability is perhaps not as salient as suggested by earlier studies; or secondly, that the results of the present study with respect to this relationship are specious. In addition to these two broad alternatives, several other more specific factors may have contributed to these findings. First, some of the students may have responded to the OMI in a random fashion. However, the consistency of the scores as reflected by Table 1 do not offer much evidence for such a response pattern. Secondly, acquiescence may have been a problem on the OMI, as the items which make up this scale are not counterbalanced, as they are in the Marlowe-Crowne scale. Thirdly, the lack of correlation between the OMI and the Marlowe-Crowne scale may have resulted in a Type II error. However, reference to Table 2 reveals one correlation coefficient significant at the .10 level between the OMI and the Marlowe-Crowne scale, suggesting that a Type II error was probably not involved in these results. Fourthly, the results may be limited to this specific sample; and the only way to test this hypothesis is to compare a different sample using the same instruments.

These findings have implications in another area. They suggest that the use of behavior modification techniques is socially acceptable, at least in this geographical region. If this is the case, then it would appear that the basic uncertainty of the general public about these techniques has been lessened significantly. However, because of the restrictions of the present sample, further study with more general populations must be undertaken in order to evaluate this hypothesis.

The significant difference between participant and non-participant
scores on the Marlowe-Crowne scale suggests that participation in the mental hospital program is not seen as socially desirable. This finding contradicts an earlier investigation (Hersch, Kulik, & Schiebe, 1969) which indicated no differences between participants and non-participants on the Marlowe-Crowne scale. It further suggests that in this geographical region a high need for social approval is associated with a negative image of the mental hospital and the mentally ill. Again, further investigation of regional characteristics needs to be undertaken before its potential effects can be fully assessed.

The most surprising finding of the present study was the effect of gender on the attitude scales. The results indicate that females hold more humanitarian opinions toward mental patients, possess more knowledge about mental hygiene, and endorse behavior modification techniques more often than males, while there was no difference between males and females on the Marlowe-Crowne scale. The emphasis on traditional values and traditional sex-roles in this geographical region may have contributed significantly to these differences. However, the contribution of sex-role differences is probably not limited to this region and it is suggested that its contribution has been overlooked in previous studies in this area. While it is true that the major focus of these studies has been concerned with differences between participants and non-participants in volunteer programs, gender differences have an impact on attitudes as well, as the present study has shown. In Cohen and Struening's original investigation (Cohen & Struening, 1962), gender was used as an independent variable, however, their results indicated no significant differences for this variable. No subsequent major investigation in this area has controlled for the effects of gender, and
while the findings of the present study may be restricted to this geographical region, it is suggested that gender is a potentially significant variable that should not be overlooked in subsequent studies.

In summary, the findings of the present investigation have focused on four major areas. First, the volunteer program at Central State Hospital was examined. It was broadly suggested that the program is insufficiently structured, and that it lacks clear-cut goals for its student-participants. The second major area of focus was the utility of the OMI as a measuring instrument. The interest here was in examining the appropriateness of the basic factor structure of the instrument for measuring attitudes related to the authoritarianism construct. The findings of several studies suggest that authoritarian attitudes toward mental illness may contain more than one component (Kulik, Martin, & Schiebe, 1969; Chinsky & Rappaport, 1970; Keith-Spiegel & Spiegel, 1970; Kish & Hood, 1974). On the OMI, it was suggested that two components, attitudes toward the mental patient and attitudes toward the institutional structure of the mental hospital, make up the Authoritarianism subscale. The high scores of student volunteers on this subscale may be attributable to high scores on one or both of these components. Third, high need for social approval was related to the endorsement of behavior modification techniques. It was suggested that this may be related to increased acceptance of these techniques by the general public which could lead to their increased use outside of mental health settings. The fourth area of focus was gender differences. The major conclusion here was that previous studies in this area of research have ignored an important component in the structure of attitudes toward mental illness. The overall findings of the present study point to its potential influence
in determining these attitudes. It is hoped that future investigators in this area of research will take these four areas into account as major contributing factors to the outcome of studies dealing with volunteer programs and their influence on attitudes toward mental illness. Through the use of more highly structured volunteer programs, better measuring instruments, and more sophisticated experimental designs, it may be possible to more adequately assess the contribution of mental hospital volunteer programs in the influence of attitudes toward mental illness.
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Appendix A

Description of the volunteer program at Central State Hospital

Each quarter, students in health classes conducted in the Department of Health, Physical Education, and Recreation at Georgia College, Milledgeville, Georgia, are asked to participate in a volunteer program at Central State Hospital as part of their course requirements. During the quarter, a member of the staff at the hospital will come to the class and deliver a presentation about the hospital and the volunteer program. The students are given a choice between writing a paper on some aspect of health pertinent to the course or participating in the volunteer program at Central State Hospital. If the student opts for participation in the hospital program, he or she is required to spend at least 10 hours at the hospital performing volunteer service. Before being allowed on the wards, the students are required to complete a hospital orientation session. In this session, they are given a tour of the hospital, and topics such as confidentiality, patient rights, and hospital safety are discussed. Upon completion of this program, the student is assigned to a specific building and ward where he or she will spend his or her time as a volunteer. The students are placed where there is the greatest manpower need, most often in wards with geriatric or mentally retarded patients. The students receive a time card, which is completed by them and initialled by a member of the hospital staff. They are also asked to keep a diary of their experiences by their instructor. These items are turned in to the instructor in order to receive their credit.
Appendix B

### TABLE 1

Means and standard deviations for the five subscales of the OMI, the Musgrove scale, and the Marlowe-Crowne scale

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Authoritarianism</th>
<th>Benevolence</th>
<th>Mental Hygiene</th>
<th>Social Restriction</th>
<th>Interpersonal Ideology</th>
<th>Musgrove</th>
<th>Marlowe-Crowne</th>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>25</td>
<td>74.08</td>
<td>44.92</td>
<td>43.56</td>
<td>29.84</td>
<td>24.68</td>
<td>84.56</td>
<td>14.12</td>
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<td></td>
<td></td>
<td>13.7</td>
<td>5.94</td>
<td>5.49</td>
<td>9.51</td>
<td>4.38</td>
<td>13.58</td>
<td>6.03</td>
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<td>23.9</td>
<td>84.77</td>
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<td>4.96</td>
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<td>45.65</td>
<td>39.7</td>
<td>31.53</td>
<td>26.12</td>
<td>83.29</td>
<td>12.29</td>
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<td></td>
<td></td>
<td>8.59</td>
<td>3.48</td>
<td>5.92</td>
<td>6.35</td>
<td>4.72</td>
<td>10.97</td>
<td>4.1</td>
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<td>Group IV</td>
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<td>38.43</td>
<td>31.28</td>
<td>24.62</td>
<td>83.04</td>
<td>13.86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.72</td>
<td>4.82</td>
<td>6.36</td>
<td>9.06</td>
<td>6.02</td>
<td>12.74</td>
<td>5.1</td>
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<td>44.33</td>
<td>23.22</td>
<td>21.66</td>
<td>85.66</td>
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<td></td>
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<td>8.32</td>
<td>6.07</td>
<td>8.13</td>
<td>6.26</td>
<td>5.15</td>
<td>12.21</td>
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</table>
TABLE 2

Correlation coefficients between Marlowe-Crowne scale scores, and scores on the five subscales of the OMI and the Musgrove scale

<table>
<thead>
<tr>
<th>Marlowe-Crowne scale</th>
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<tr>
<td>Benevolence</td>
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<tr>
<td>Mental Hygiene Ideology</td>
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<tr>
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<tr>
<td>Interpersonal Etiology</td>
<td>0.1740 *</td>
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<tr>
<td>Musgrove scale</td>
<td>0.2162 **</td>
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* p < .10  
** p < .05
Appendix C

Three way analysis of variance tables, with Marlowe-Crowne scores as a covariate, for each subscale of the OMI and the Musgrove scale

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<td>Social Desirability</td>
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<tr>
<td><strong>Main Effects</strong></td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Status</td>
</tr>
<tr>
<td>(pre vs. post-testing)</td>
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<tr>
<td>Treatment</td>
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<tr>
<td>(participation vs. non-participation)</td>
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<td>Sex-Status</td>
</tr>
<tr>
<td>Sex-Treatment</td>
</tr>
<tr>
<td>Status-Treatment</td>
</tr>
<tr>
<td><strong>Three Way Interactions</strong></td>
</tr>
<tr>
<td>Sex-Status-Treatment</td>
</tr>
<tr>
<td><strong>Residual</strong></td>
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<tr>
<td><strong>Total</strong></td>
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### Benevolence

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<td>.00</td>
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<td>Treatment</td>
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<td>Sex-Status-Treatment</td>
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<td>.01</td>
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<td>Residual</td>
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<tr>
<td>Total</td>
<td>92</td>
<td>46.95</td>
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* p<.001
### Mental Hygiene Ideology

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<td><strong>Main Effects</strong></td>
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<td>631.34</td>
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<td>Treatment</td>
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<td>Sex-Status</td>
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* p<.01
**p<.001
## Social Restrictiveness

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* p < .05
### Interpersonal Etiology

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### Attitudes Toward Behavior Modification

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* p<.03
** p<.01
Appendix D

The Opinions About Mental Illness Scale

1. If parents loved their children more, there would be less mental illness.

2. Mental patients come from homes where the parents took little interest in their children.

3. Although they usually aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.

4. The mental illness of many people is caused by the separation or divorce of their parents during childhood.

5. People would not become mentally ill if they avoided bad thoughts.

6. People who are mentally ill let their emotions control them; normal people think things out.

7. If the children of mentally ill parents were raised by normal parents, they would probably not become mentally ill.

8. When a person has a problem or a worry, it is best not to think about it, but keep busy with more pleasant things.

9. Nervous breakdowns usually result when people work too hard.

10. The patients of a mental hospital should have something to say about the way the hospital is run.

11. Mental illness is usually caused by some disease of the nervous system.

12. All patients in mental hospitals should be prevented from having children by a painless operation.

13. One of the main causes of mental illness is a lack of moral strength or willpower.

14. The small children of patients in mental hospitals should not be allowed to visit them.

15. Mental illness is an illness like any other.

16. It is easy to recognize someone who once had a serious mental illness.

17. Most mental patients are willing to work.

18. Regardless of how you look at it, patients with severe mental illness
are no longer really human.

19. Many people who have never been patients in a mental hospital are more mentally ill than many hospitalized mental patients.

20. There is something about mental patients that makes it easy to tell them from normal people.

21. If people would talk less and work more, everybody would be better off.

22. Even though patients in mental hospitals behave in funny ways, it is wrong to laugh about them.

23. People with mental illness should never be treated in the same hospital as people with physical illness.

24. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.

25. If the children of normal parents were raised by mentally ill parents, they would probably become mentally ill.

26. A heart patient has just one thing wrong with him, while a mental patient is completely different from other patients.

27. To become a patient in a mental hospital is to become a failure in life.

28. Patients in mental hospitals are in many ways like children.

29. More tax money should be spent in the care and treatment of people with severe mental illness.

30. Although some mental patients may seem alright, it is dangerous to forget for a moment that they are mentally ill.

31. A woman would be foolish to marry a man who has had a severe mental illness, even though he seems fully recovered.

32. Anyone who tries hard to better himself deserves the respect of others.

33. Our mental hospitals seem more like prisons than like places where mentally ill people can be cared for.

34. People who have been patients in a mental hospital will never be their old selves again.

35. If our hospitals had enough well trained doctors, nurses and aides, many of the patients would get well enough to live outside the hospital.

36. The law should allow a woman to divorce her husband as soon as he has been confined in a mental hospital with a severe mental illness.
37. The best way to handle patients in mental hospitals is to keep them behind locked doors.

38. Many patients in mental hospitals make wholesome friendships with other patients.

39. Although patients discharged from mental hospitals may seem alright, they should not be allowed to marry.

40. Many mental patients are capable of skilled labor, even though in some ways they are very disturbed mentally.

41. There is little that can be done for patients in a mental hospital except to see that they are comfortable and well fed.

42. Many mental patients would remain in the hospital until they are well if the doors were unlocked.

43. Anyone who is in a hospital for a mental illness should not be allowed to vote.

44. Every mental hospital should be surrounded by a high fence and guards.

45. Every person should make a strong attempt to raise his social position.

46. Most women who were once patients in a mental hospital could be trusted as baby sitters.

47. Most patients in mental hospitals don't care how they look.

48. Obedience and respect for authority are the most important virtues children should learn.

49. College professors are more likely to become mentally ill than are businessmen.

50. People who are successful in their work seldom become mentally ill.

51. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.

52. The death penalty is inhuman and should be abolished.

53. Every person should have complete faith in some supernatural power whose decisions he obeys without question.
Appendix E

The Attitudes Toward Behavior Modification Scale

1. The benefits of behavior modification have been exaggerated.
2. Behavior modification has unlimited possibilities.
3. I wish my education would be accomplished under behavior modification methods.
4. Behavior modification is unable to meet the demands of a complex social order.
5. The extra time involved in dispensing rewards is worth the improvement seen as a result of using behavior modification.
6. Behavior modification causes too much friction among the children in a classroom or patients on a ward.
7. Behavior modification helps a person to learn how to cope with his/her environment.
8. More money should be spent on behavior modification programs.
9. Behavior modification makes a person stop working when rewards are not available.
11. Behavior modification will advance education and mental health care to a higher level.
12. More people would support (favor) behavior modification if they knew more about it.
13. Behavior modification enables us to make the best possible use of our lives.
14. The use of behavior modification should be prohibited.
15. Behavior modification is just another term (name) for tyranny.
16. The added expense of purchasing rewards is not worth the eventual gain from a program of behavior modification.
17. Behavior modification improves overall treatment conditions.

20. Behavior modification helps to produce desired behavior.
Appendix F

The Marlowe-Crowne Social Desirability Scale

Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

1. Before voting I thoroughly investigate the qualifications of all the candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work if I am not encouraged.
4. I have never intensely disliked anyone.
5. Occasionally I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat out at a restaurant.
9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip at times.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loud mouthed,
obnoxious people.

19. I sometimes try to get even rather than forgive and forget.

20. When I don't know something I don't at all mind admitting it.

21. I am always courteous, even to people who are disagreeable.

22. At times I have really insisted on having things my own way.

23. There have been occasions when I felt like smashing things.

24. I would never think of letting someone else be punished for my wrongdoings.

25. I never resent being asked to return a favor.

26. I have never been irked when people expressed ideas very different from my own.

27. I never make a long trip without checking the safety of my car.

28. There have been times when I was quite jealous of the good fortune of others.

29. I have almost never felt the urge to tell someone off.

30. I am sometimes irritated by people who ask favors of me.

31. I have never felt that I was punished without cause.

32. I sometimes think when people have a misfortune they only got what they deserved.

33. I have never deliberately said something that hurt someone's feelings.
Appendix G

Form for Informed Consent

I am conducting a special project to study the attitudes of college students. If you agree to participate in the study, I will ask you to complete a questionnaire dealing with attitudes. Any information you give me will be held in strict confidence. Information which identifies you as an individual will not be released without your consent to anyone for purposes which are not directly related to this study.

Participation in this project is completely voluntary. I will be glad to answer any questions you might have about this project or about what I am asking you to do.

If you would like to participate, please read and sign the statement below:

The nature of this project has been described to me and I have been given a chance to read the written explanation above. I agree to participate in this study.

______________________________
Signature of Subject

______________________________
Date