

MENTAL HEALTH OPINIONS OF HIGH SCHOOL STUDENTS:  
AN EXPLORATION

Dissertation for the Degree of Ph. D.  
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ABSTRACT

' MENTAL HEALTH OPINIONS OF HIGH SCHOOL  
STUDENTS: AN EXPLORATION

By

Dorothy Lee Smith

The problem of this investigation evolved through a critical review of the literature which assumes that the opinions and attitudes of young people are formed in early childhood and reinforced in later life. This study focuses on the opinions of high school students concerning psychologically disordered behavior. Little research effort has been devoted to the important question of how this aspect of one's totality of attitudes develops.

The present study highlights the opinions of high school students and shows how they differ when compared to older persons in the population.

The high school years are important in helping the student to develop a perspective of the larger world and their relation to it. The influence of the teacher is an important factor in shaping the attitudes and opinions of students concerning various ideas and stereotypes, including those concerned with mental health.

The high school years of students are considered a transitional period. Prior to high school, it is reasonable to assume that the main lines of attitude and opinion development are formed within the family, peer groups, and that the high school years are the years of expansion, growth, and preparation for adult socialization. Therefore, research on this developmental process is important.

The problem of this investigation is centered around two basic questions:

1. How do grade levels affect knowledge about mental health?
2. Is knowledge about mental health concepts related to social characteristics of students and parents?

The sample for the study consisted of 989 high school students from five high schools in Michigan. Information about the social characteristics of the students was obtained by use of a questionnaire. A 35-item mental health opinion questionnaire was also used for data collection. Mean responses to the 35 mental health opinion statements are used in the analytical procedures. The t-test was used to determine statistical significance of differences between means.

The major dependent variables are (1) a "knowledgeability" score reflecting similarity of responses to professionals, (2) a measure of similarity to responses of the



"general public," and (3) a measure of similarity to responses of high school teachers.

The major independent variables are: year in school (9-12), sex, college plans, parental education, father's occupation, experience with mental illness (friends and family), and grade point average (GPA).

Several hypotheses were formulated in an effort to determine the relationship between the independent and dependent variables. The results are as follows:

Variables	Hypotheses	Trend	Conclusion
Grade Level and similarity of responses to teachers	As grade levels increase mental health opinions of students will become increasingly similar to those of their teachers	As Expected	Hypothesis not supported in its entirety
Grade Level and similarity of responses to teachers	Senior responses will be more similar to those of their teachers than other class levels	As Expected	Hypothesis Supported
Grade Level and similarity of responses to the "General Public"	As grade levels increase mental health opinions of students will become increasingly similar to those of the "General Public"	As Expected	Hypothesis not supported in its entirety

Variables	Hypotheses	Trend	Conclusion
Grade Level and similarity of responses to the "General Public"	Seniors will be more similar to those of the "General Public" than other class levels	As Expected	Hypothesis Supported
Grade Level	As grade levels increase there will be an increase in knowledge-ability	As Expected	Hypothesis not supported in its entirety
Grade Level	Senior higher on K-Score	As Expected	Hypothesis Supported
Sex	No relationship	Females Higher	Data Contrary to Hypothesis
GPA	Higher the GPA, Higher the K-Score	As Expected	Hypothesis Supported
College Plans	College bound higher on K-Score	As Expected	Hypothesis Supported
Parental Education: Mother	Higher Education, higher the K-Score	None Indicated	Data Contrary to Hypothesis
Father	Higher Education, higher K-Score	None Indicated	Data Contrary to Hypothesis
Father's Occupation	Upper White Collar Higher on K-Score	As Expected	Hypothesis not supported in its entirety
Mental Health Experience: Friends	Yes--Higher on K-Score	As Expected	Hypothesis Supported
Family	Yes--Higher on K-Score	As Expected	Hypothesis Supported

Variables	Hypotheses	Trend	Conclusion
Combined Experience-- Family, Friends, Visits	Experience higher on K-Score	As Expected	Hypothesis Supported
Students vs. Teachers	Teachers higher on K-Score	As Expected	Hypothesis Supported

The results of this investigation led to three major conclusions: first, the opinions of high school seniors are more similar to their teachers and to the "Grand Rapids Citizens" than are the opinions of other class levels. Results for each school do not always show a monotonic increase in similarity of responses to high school teachers and the "Grand Rapids Citizens" with an increase in grade levels, however, when grade levels for all schools are combined the results show a steady monotonic increase from freshmen to senior. Second, seniors were found to be more knowledgeable about mental health concepts than freshmen, sophomores, and juniors. In individual schools, knowledgeability does not increase at each grade level, although when schools are pooled, there is a steady increase in knowledgeability from freshmen, sophomore, junior to senior. Third, knowledge about mental health opinions of high school students is clearly related in the expected manner to certain social variables, but not to others. Sex, grade point

average, college plans, and experience with mental health problems were found to be related to knowledgeability, but surprisingly, parental education was not, and the relationship between knowledgeability and father's occupation was equivocal.

MENTAL HEALTH OPINIONS OF HIGH SCHOOL  
STUDENTS: AN EXPLORATION

By

Dorothy Lee Smith

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To My Mother

Mary Brinson Smith

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## CHAPTER I

### INTRODUCTION

Recent decades have seen a pronounced increase in research interest in many sociological aspects of mental health and mental disorder. However, there has not been nearly as much relative research effort directed toward analysis of popular views of mental disorder. The amount of evidence showing change over past decades is small compared to the general assumption that it is true. There is not much available information in terms of content of mental health attitudes of high school students and how they differ when compared to experts.

A considerable amount of information has been published concerning the attitudes and values of youth. Attitudes and values in general are not the concern of the present research. The primary focus of the present research is the development<sup>1</sup> of opinions, values, and attitudes in the mental health domain from a sociological perspective.

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<sup>1</sup>Development here does not refer to a longitudinal study of high school students, but refers to a study of high school students at different stages of an assumed process.

The present study is not focused on the psychological behavior of youth, but on the social phenomena of a body of opinions in society. The present study is not concerned with psychological functioning of individuals which is related to individual adjustment.

This research is concerned with the mental health attitudes and opinions of high school students. Previous research studies have been primarily concerned with the attitudes of the general public; however, very little data are available concerning the development of mental health attitudes and opinions of high school students.

### Problem

The present study is concerned with exploring the development of attitudes and opinions of high school students concerning psychologically disordered behavior.

Despite the very great amount of research in recent years on people of high school age by educators, psychologists, sociologists, and others, there appears to have been little research effort devoted to the question of how this significant aspect of a person's totality of attitudes develops.

The present study is designed to explore the development of mental health attitudes of high school students and to show how these attitudes differ from those held by older persons. Prior to high school it seems reasonable to assume that these attitudes and opinions were influenced by the

family, peer group, mass media, and the neighborhood in which the student resided. The high school years introduce the student to a new set of socializing agents. These years are important in helping students to develop a perspective of the larger world and their relationship to it. The influence of the teacher may be an important factor during the high school years in shaping the attitudes of students concerning various ideas, images, and stereotypes, including those having to do with mental health.

Previous mental health research studies show surprisingly little change over time in popular trends concerning attitudes about mental health concepts. Some studies show slight tendencies toward relationships between attitudes about mental health concepts and specific socio-cultural variables. Generally, sociologists assume distinct relationships between most attitudes and socio-cultural variables; this may not hold true regarding mental health concepts, or the relationships may be much weaker in this domain.

The high school years of students are considered a transitional period. Prior to high school, it seems reasonable to posit that the main lines of development of their opinions and attitudes are formed within the family, peer groups, neighborhood, and that the high school years are the opening-up years--years of expansion, growth, and preparation for the adult life. Therefore, research on how these processes take place is important. Actually, this "model" probably applies across the board to all areas of

psychological and sociological development of high school youth, but I am concerned only with the mental health domain.

Previous research by Nunnally (1961) and by Olmsted-Smith (1972) and by Olmsted-Durham (1972) indicates that adult mental health attitudes are not sharply different among people in various sectors of the societal structure. For example, mental health attitudes are apparently not strongly related to characteristics such as age, sex, education, and occupational level. If this is so, it is no doubt contrary to the assumptions of most sociologists concerning these relationships. In addition, if this is so, the structure and processes associated with mental health attitudes may be quite different from those in such areas as politics and economics.

Evidence from Nunnally also suggests that high school students' attitudes regarding mental health are quite distinctive from prevailing adult attitudes. There is very little available information about this in the research literature. It would be highly desirable to determine whether Nunnally's evidence is an anomaly, or whether high school students' attitudes are indeed as different as his data suggest. In either case, there does not appear to be much information available in psychological, sociological, or educational research concerning the ways in which high school students' mental health attitudes develop during this critical period.

### School Socialization

Socialization is a process by which children learn the ways of their society and the process by which various agencies or social institutions--the family, the school, mass media, the peer group, and others--teach the child and gradually mold him into a group member. The school operates in conjunction with other social institutions in carrying out its socializing functions.

One of the many functions of the school is to cultivate socially approved attitudes and modes of behavior for learning to be an accepted member of the adult society. The school provides the student with attitudes toward various things as well as knowledge about them. Barry Sugarman notes that as students learn about the structure of the physical world, they also acquire different attitudes about the "facts" they are learning. Similarly, as they learn about the structure of the social order and the existence of authority positions and status differences, they unavoidably develop attitudes of respect or disrespect for those who occupy these positions.

During the school years, Sugarman adds that attitudes are being developed toward teachers, toward authority, toward adults in general. Attitudes toward peers, which had been developing before entering school and which continued to develop to some extent independently of school, are also affected by the pupil's experience with fellow-pupils.

Attitudes towards the self are being molded in the student by early experiences, including those met in school. Attitudes concerning one's likeability, competence and basic worth will be of importance to his or her long-term development.<sup>2</sup>

I contend that mental health attitudes are not formed independently of general attitudes about the social world. Due to the universal nature of education, the schools inform and shape popular attitudes about mental health.

In a research study by Bentz, Edgerton, and Miller it was stressed that the school is represented by the teacher. The teacher plays an instrumental role in the socialization of children, influencing their cognitive and emotional development. Bentz, Edgerton, and Miller assert that the teachers are culture carriers. The teacher's attitudes and behavior concerning what is a behavior problem or mental illness are transmitted to the student which influences his beliefs and views of his social world.<sup>3</sup>

According to Wilson, Robeck, and Michael, attitudes are learned, although the school has avoided paying systematic attention to the attitudes it is continuously teaching. In the view of most parents, the function of the school is

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<sup>2</sup>Barry Sugarman, Schools and Moral Development (New York: Barnes and Noble, 1973).

<sup>3</sup>W. K. Bentz, J. W. Edgerton, and F. T. Miller, "Perceptions of Mental Illness Among Public School Teachers," Sociology of Education, 42 (1969).

to teach certain subject-matter content or certain skills. The teachers have accepted this role expectation assigned to them by the community. Although little or no time or thought was supposed to be given to teaching attitudes, the eventual emergence of young people with the "wrong" attitudes was and still is deplored. Teachers have been blamed for not having developed the "right" attitudes in their students, at the same time that any attention to the fostering of specific kinds of attitudes was being systematically attacked.<sup>4</sup>

Previous research in the area of school socialization as summarized in the presently proposed study has emphasized primarily the role of the teacher in the socialization of the student.

Havighurst, Neugarten, and Falk analyze the school class as a social system and relate its structure to the primary functions in the society as an agency of socialization. The authors were primarily concerned with two major questions: (1) how the school class functions to internalize in its pupils both the commitments and capacities for successful performance of their future adult roles; (2) how the school class functions to allocate these resources within the role structure of the adult society.

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<sup>4</sup> John A. Wilson, Mildred C. Robeck, and William B. Michael, Psychological Foundations of Learning and Teaching (New York: McGraw-Hill Book Co., 1969).



The school class is viewed as an agency of socialization. It is an agency through which individual personalities are trained to be motivationally and technically adequate to the performance of adult roles. The school is not the only socializing agency; the family, informal "peer groups," churches, voluntary organizations all play a part. However, the period extending from entry into first grade until completion of high school, the school class is considered the focal socializing agency.

The socializing function may be summed up as the development of individuals to the commitments and capacities which are essential prerequisites of their future role-performance. The authors note that commitments may be broken down into two components: (1) commitment to the implementation of the wider values of society; (2) commitment to the performance of a specific type of role within the structure of society. Capacities may be broken down into two components. The first being competence or the skill to perform the tasks involved in the individual's roles, and the second being "role-responsibility" or the capacity to live up to others' expectations of the interpersonal behavior appropriate to these roles.

The authors further assert that while on the one hand, the school class may be regarded as a primary agency by which these different components of commitments and capacities are generated; on the other hand, it is, from the point of view of society, an agency of "manpower" allocation.

Havighurst, Neugarten, and Falk conclude that the educational system has played an increasingly vital role in the processes of the American society. The school is considered by them to be a specialized agency which has increasingly become the principal channel of occupational selection as well as an agency of socialization.<sup>5</sup> This viewpoint has of course been challenged by other analysts of American society.

### Theoretical Orientation

Reactions to deviant behavior is learned in early childhood and reinforced in later life. Attitudes and opinions about mental disorder are learned through various means of socialization. Attitudes and opinions concerning various phenomena are probably somewhat latent in early childhood experiences and become more developed and pronounced during the high school age years. For this reason, the school was chosen because of its accessibility for gathering these kinds of attitudes.

Scheff,<sup>6</sup> in his discussion of the role of the mentally ill, proposes that "stereotyped imagery of mental disorder is learned in early childhood." He concludes that

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<sup>5</sup>Robert J. Havighurst, Bernice L. Neugarten, and Jacqueline M. Falk, Society and Education: A Book of Readings (Boston, Mass., 1971), pp. 65-143.

<sup>6</sup>Thomas J. Scheff, "The Role of the Mentally Ill and the Dynamics of Mental Disorder: A Research Framework," in Studies in the Sociology of Deviance by Stephan P. Spitzer and Norman K. Denzin (New York: McGraw-Hill Publishing Co., 1968), pp. 8-21.

children learn a great deal of imagery concerning deviance very early, and much of the imagery comes from their peer group rather than from adults. He goes on to say that the literal meaning of the concept "crazy," used today in a wide variety of contexts, is probably grasped by children during the first years of elementary school. Scheff adds, however, that these conclusions are only speculative and need further investigation. Scheff poses the question of what effect does early learning have on the shared conceptions of insanity held in the community? A considerable amount of the material that is learned in early childhood is discarded when more appropriate information replaces it.

Scheff's writing further emphasizes the notion that "the stereotypes of insanity are continually reinforced, inadvertently, in ordinary social interaction." Even after many adults have become acquainted with medical concepts of mental illness, the learned traditional stereotypes are not discarded, but continue to exist along with the medical conceptions. These stereotypes persist, says Scheff, because they receive continual support from the mass media and in ordinary social discourse. Newspapers and television emphasize mental disorder in a negative perspective and seldom give positive reports.

In newspapers, it is a common practice to mention that a rapist or a murderer was once a mental patient. Because of the highly biased reporting, the reader is free to make the unwarranted inference that murder and rape occur

more frequently among ex-mental patients than among the population at large.<sup>7</sup>

Support and reaffirmation of the stereotype of mental disorder occur not only in the mass media, asserts Scheff, but also is daily conversation through jokes and conventional phrases. Such phrases are "you are crazy," "it's driving me nuts." These phrases have become very useful parts of one's interaction. Through verbal usages the stereotypes of mental disorder are ingrained in the social structure.

Stereotyping of mental disorder occurs early in one's childhood experiences and becomes reinforced as one interacts more meaningfully with various social structures. However, along with incorrect or stereotypic notions of mental disorder the student also learns the "correct" or medical conceptions of mental disorder. Scheff notes that the "correct" conceptions of mental disorder become more dominant with social maturity.

Conceptions of mental illness are ingrained in the population because they are learned in early childhood and are continuously reinforced in the mass media, school, and daily interaction.

Scheff<sup>8</sup> asserts that popular stereotypes of mental disorders are primary determinants of symptomatology. Based

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<sup>7</sup>Ibid., p. 16.

<sup>8</sup>Thomas J. Scheff, Being Mentally Ill: A Sociological Theory (Chicago: Aldine Publishing Co., 1966), pp. 55-101.

on Scheff's theory before and after public labeling, the popular conceptions of mental illness, learned and culturally reinforced after childhood govern the expectations of the rule-breaker. And of those around him and force his behavior into conformity with popular conceptions. The ultimate products of this process are the stereotyped roles of insanity.

Scheff's theory proposes that a culture's conceptions of mental illness determines the process of defining someone as mentally ill.

Scheff's theory of the development of conceptions concerning mental disorders may be summarized as follows:

Due to diverse causes (psychological, biological, sociological), various people will occasionally break societal rules. The identity of the rule breaker, the rule broken, the social context, the rule breaker may be publicly labeled as being 'mentally ill.' During this process--before and after public labeling the popular conceptions of mental illness, which have been learned and culturally reinforced since childhood, govern the expectations of the rule breaker and of those around him and force his behavior into ever-increasing conformity with the popular conceptions. The ultimate products of this process are the stereotyped roles of insanity.<sup>9</sup>

Two aspects of the theoretical position of Scheff and others can be distinguished: (a) the "labeling" aspect--i.e., the process through which certain persons are "tagged" as being mentally ill or crazy; (b) the "societal reaction" aspect--i.e., the conventionalized ways that people respond

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<sup>9</sup>Ibid.

to those who are socially defined as mentally ill or disordered.

In this dissertation, our concern is primarily with the societal reaction aspect and in particular we are interested in learning more about the popular opinions and attitudes which underlie the societal reaction. Of even greater interest, the data on high school students analyzed herein is seen as an effort to begin to trace the procedures of socialization into the adult belief systems (organized attitudes and opinions) regarding mental health and mental disorder.

## CHAPTER II

### RELEVANT LITERATURE

Perhaps, the most extensive research in the area of the public's attitude and opinion about mental health concepts is that of Nunnally (1961). Nunnally was interested in knowledge and feelings of the general public about mental illness and treatment. A sample of 400 respondents was designed to be nationally representative with respect to sex, age, education, income, and religion. Public knowledge was determined by using the means of 180 opinion statements answered by the respondents on a seven-point scale ranging from agree-disagree.<sup>1</sup>

In addition to knowledge, Nunnally also assessed attitudes about mental illness by use of semantic differential scales including concepts referring to psychiatrists and mental patients.

Nunnally found that "the mentally ill are regarded with fear, distrust, and dislike by the general public."<sup>2</sup>

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<sup>1</sup>Jum C. Nunnally, Popular Conceptions of Mental Health (New York: Holt, Rinehart and Winston, 1961).

<sup>2</sup>Ibid., p. 46.

He reported that the stigma associated with mental illness was found to be general, both across social groups and across attitude indicators, with little relation to demographic variables such as age and education. "Old people and young people, highly educated people and people with little formal training regard the mentally ill as relatively dangerous, dirty, unpredictable, and worthless."<sup>3</sup> Nunnally concluded that these negative attitudes were not held because of existing information or misinformation about mental illness by the public, but instead, because of "lack" of information.

In an extensive study of social class and mental illness in New Haven, Hollingshed and Redlich<sup>4</sup> investigated attitudes toward psychiatry and treatment for mental illness expressed by families of patients and by a stratified sample of the general public. Higher social status was found to be associated with more knowledge about psychiatrists and psychiatric treatment, greater willingness to seek such help, and greater competence in arranging for it. Lower social status was found related to lack of information, resistance, and sometimes open antagonism to psychiatric prevention.

It was found that members of the lower social class seldom sought psychiatric help for themselves or relatives.

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<sup>3</sup>Ibid., p. 51.

<sup>4</sup>August B. Hollingshed and Frederick C. Redlich, Social Class and Mental Illness (New York: John Wiley and Sons, Inc., 1958).



Finally, it was found that the lower the class, the more likely that mental illness was seen as a feared somatic disease.

Crocetti, Lemkau,<sup>5</sup> and others conducted studies in the 1960s that were concerned with the public's attitude and attitude change. Their 1960 Baltimore sample was stratified for education, income, race, and age. The findings showed that responses to a questionnaire were interpreted as revealing "optimistic" attitudes concerning advanced knowledge about mental health concepts.

The Lemkau-Crocetti 1960 Baltimore study was replicated by Meyer<sup>6</sup> in another Maryland community of 6,000. Identical measures were used in addition to items about information and opinions held by the public. Meyer's results were not different from the Lemkau-Crocetti study and he concluded also that the public has developed greater tolerance toward mental illness than had been found by previous studies.

A study by Bentz and Edgerton<sup>7</sup> compared attitudes of 1,400 "general public" respondents with the attitudes of

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<sup>5</sup>G. Crocetti and P. Lemkau, "Public Opinion of Psychiatric Home Care in an Urban Area," American Journal of Public Health, 53 (1963), 409-17.

<sup>6</sup>J. Meyer, "Attitudes Toward Mental Illness in a Maryland Community," Public Health Reports, 79 (1964), 769-72.

<sup>7</sup>Kenneth Bentz and Wilbert Edgerton, "Consensus and Opinions Toward Mental Illness: Between Leaders and the General Public in a Rural Community," Archives of General Psychiatry, 22 (5) (1970), 468.

community leaders in the same geographical area, using a 157-item questionnaire. The two groups reflected similar attitudes about mental illness. The results of the study demonstrated that there was agreement between the two groups that mental patients can be helped and that "a lot can be done to prevent mental illness." It was concluded that the respondents had more favorable attitudes than had been demonstrated by earlier studies.

Although various studies (cited previously) have demonstrated enlightened attitudes and opinions about the mentally ill, others have demonstrated less optimism about attitude change and public tolerance of the mentally ill.

Sarbin and Mancuso<sup>8</sup> in their 1972 study found that when people encounter any form of mental illness, they respond with a certain degree of fear and aversion that have traditionally been the major attitude for the American society.

The Joint Commission of Mental Illness and Health reported a general rejection by society of the mentally ill. The report also cited "a major lack of recognition of mental illness as illness and a predominant tendency

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<sup>8</sup>Theodore R. Sarbin and James C. Mancuso, "Paradigms and Moral Judgments: Improper Conduct is Not Disease," Journal of Consulting and Clinical Psychology, 39 (1) (1972), 6-8.

toward rejection of both the mental patient and those who treat them."<sup>9</sup>

Studies by Phillips,<sup>10</sup> using social distance measures, demonstrate that deviant behavior labeled mental illness continues to be avoided and rejected by a majority of people. In his 1967 study, Phillips<sup>11</sup> contends that the improved ability of the public to assign the label of mental illness to deviant behavior was associated with rejection of the people so labeled and was not considered an improvement. Using three of the "Shirley Star" descriptions of disturbed behavior, Phillips concluded that the ability to correctly identify behavior as mental illness is associated with rejection.

Research studies show that various social characteristics influence the kinds of attitudes held by the general public. Whereas, various findings of these studies are consistent, others seem to be conflicting. Among the characteristics investigated are education, age, occupation, social class, and experience with mental illness. The general conclusion of these studies reveals that there is a

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<sup>9</sup>"Joint Commission of Mental Illness and Health," eds., Action for Mental Health (New York: Basic Books, Inc., 1961).

<sup>10</sup>D. L. Phillips, "Rejection: A Possible Consequence of Seeking Help for Mental Disorders," The American Sociological Review, 28 (1963), 963-72.

<sup>11</sup>D. L. Phillips, "Identification of Mental Illness: Its Consequences for Rejection," Community Mental Health Journal, 3 (1967), 262-66.

strong relationship between age and education concerning the degree of prejudice and rejection of the mentally ill.<sup>12,13</sup> Further, the studies concluded that the older the individual, the more unsympathetic, intolerant, rejecting, and distant are his attitudes about the mentally ill. Freeman observed that possibly other socializing agents apart from formal education have had differential effects on the young and old with respect to mental health attitudes.

A study which obtained data casting doubt on the foregoing relationships between mental health attitudes and social characteristics was conducted by Smith.<sup>14</sup> This study found that relationships between mental health attitudes and certain social characteristics were very weak and often not statistically significant.

Conflicting views in this area thus suggest the need for further research into the relationship between social variables and attitudes about mental health concepts.

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<sup>12</sup>Josephine A. Bates, "Attitudes Toward Mental Illness," Mental Hygiene, LII (1968), 250-53.

<sup>13</sup>H. E. Freeman, "Attitudes Toward Mental Illness Among Relatives of Former Patients," American Sociological Review, XXVI (1961), 56-66.

<sup>14</sup>Dorothy L. Smith, "College Students' Knowledgeability and Opinions About Mental Health in 1962 and 1971" (unpublished M.A. Thesis, Sociology Department, Michigan State University, 1972).

A concluding note on the status of public attitudes toward mental illness suggested by Halpert<sup>15</sup> is that the public seems to be better informed and disposed toward mental patients than it has been; however, a large percentage of the population continues to be repelled by mental illness.

The Star studies<sup>16</sup> suggest that recognition of the mentally ill is increasing; however, this recognition alone does not indicate more "enlightened" attitudes of mental health.

In viewing the future of mental health in the community, Felix<sup>17</sup> has devised a model encompassing several major areas of essential service to be included in a comprehensive community mental health program--these areas may be seen as follows:

--One area will be concerned with the diagnosis and treatment of mental and emotional disorders.

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<sup>15</sup>H. P. Halpert, "Public Acceptance of the Mentally Ill: An Explanation of Attitudes," reprint based on a paper presented at the 7th International Congress of Mental Health, London, August 12-17, 1968.

<sup>16</sup>Shirley A. Star, "The National Research Center Study," in Psychiatry, The Press, and The Public: Problems in Communication (Washington, D.C.: American Psychiatric Association, 1956). See also, Shirley A. Star, "The Public's Ideas About Mental Illness," a paper presented at the annual meeting of the National Association of Mental Health, Indianapolis, Indiana, November 1955.

<sup>17</sup>Robert Felix, Mental Illness: Progress and Prospects (New York: Columbia University Press, 1967), pp. 83-96.

- A second essential area of tomorrow's comprehensive mental health program will be the provision of consultant services to schools, courts, public, and private health and welfare agencies, and other gatekeepers of the community.
- A third essential component will be public education. This includes public information and education programs which utilize the mass media as well as educational activities conducted in smaller groups.
- A fourth component of a mental health program must be community research--research to find answers to those problems that are at the root of mental and emotional disorders, and to try out and evaluate the effectiveness of new or unique mental health programs designed to meet the needs of the community.
- A fifth essential component of a comprehensive community mental health program will involve efforts to prevent mental illnesses. Prevention of mental illnesses implies not only the reduction of those factors which tend to produce mental and emotional disturbances, but also the provision of a climate in which each citizen has optimum opportunity for sustained creativity and responsible participation in the life of the community, and for the development of his particular potentialities as a human being.

The development of several new concepts has helped to point up the importance of energetic and interlocking community activity in order to promote mental health in the broadest possible sense.

Definitions of what constitutes mental illness hinges in part on a culturally molded frame of reference. Tyhurst notes that once a set of behaviors has been categorized as illness, there remain the most important questions of comprehending the development of the ill state and taking steps to alleviate disordered patterns.<sup>18</sup>

Tyhurst asserts that mental disorder is a major problem of contemporary society and is likely to become even more critical in the future, regardless of the actual percentage of the population which becomes ill.

The central question of the relationship between social variables and mental disorder has been a noteworthy consideration in mental health research. Three social variables were important in research by Tyhurst: rural living, urban living, and the significance of socioeconomic variables.

A body of opinion on urbanization as a basic variable in the etiology of mental illness has been summed up in the following paragraph:

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<sup>18</sup> J. S. Tyhurst, "Paranoid Patterns," in Explorations in Social Psychiatry, A. H. Leighton, J. A. Clausen, and R. Williamson (New York: Basic Books, 1957), p. 9.

The higher urban than rural rates of first admissions to mental hospitals challenges the attention of sociologists concerned with charting the impact of urbanization on our social life . . . . Despite the fact that rural and urban 'worlds' are merging, and that rural society presents wide variations, it can still be said that rural life partakes more of the characteristics of the familistic Gemeinschaft, and urban life of the contractual Gesellschaft. This over-all comparison yields the following special hypotheses: the greater the precision and stability in social roles in rural society, less marked status-striving, more intimate and personal forms of authority, the greater security of primary groups ties, the specification of norms for all life situations, the relative homogeneity of the rural population which reduced the risk of value conflict, and the greater integration of religious groups, occupational groups, etc.--which helps a person in unifying his roles.<sup>19</sup>

However, the Tyhurst research does not support the idea that urban living is more conducive to mental illness than rural living. Urban hospitalization rates were not found to be consistently higher than rural rates in different parts of the United States. It was observed that the type of city and its relation to the countryside is more important to mental illness rates than the fact that it is a city.

Although the studies of socioeconomic status and mental illness are not strictly comparable (some employ occupation, some income, some neighborhood or style of house as their criterion, depending upon the data available), the general trend seems to be consistent enough to be meaningful. It is reported by Tyhurst that rates of all illness increase

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<sup>19</sup>Ibid., p. 311.



as one goes down the socioeconomic scale. Rates for schizophrenia, like rates for all mental illness, go up in situations associated with situational stress--lower socioeconomic status, living in disorganized urban areas--whereas rates for the manic depressive psychoses remain more constant and are relatively higher than rates for schizophrenia in the upper socioeconomic strata and to some extent in rural areas.

Tyhurst further notes that even where a correlation between higher rates for mental illness and a sociologically defined group can be established, it does not tell us much about etiological factors involved. For this reason, community oriented research is necessarily the most fruitful field for studying the relationship between social environment and mental illness. It allows for the use of both broad epidemiological techniques and intensive depth interviewing of selected cases and offers the possibility of evaluating findings against the background of a definable context.

The impact of mental illness extends beyond the people who are ill. Such individuals interact with others and affect them in varying degrees. The nature and importance of the role played by the person who becomes mentally disordered affects the extent to which the illness is disruptive to others.

Probably all societies have experienced mental disorder in some form. However, it has been viewed by different

cultures in different ways. The naturalistic conception of these disorders, implied in the terms we use and which permeates our thinking today, is a product of a long development.

In addition to the mental health professionals, popular attitudes and practices exist which play a major part in the total social response to mental illness.

Popular attitudes help to define who is a case in two ways: self-definition and social discription.<sup>20</sup> We know that many individuals feel that they are mentally disturbed though they are not so considered by their intimate associates; conversely, persons have been regarded as "crazy" and "queer," though they do not share this view themselves. What relationship do each of these processes of definition bear to psychiatric and legal conceptions? Are the same kinds of symptoms and behavior defined as mental illness in all parts of the population? Are distinctions made of types of illness which parallel the professional classifications? What causal and prognostic implications are imputed to these conceptions?

Important changes have occurred in the interest, knowledge, attitudes, and practices with respect to mental illness in the past two decades. The upsurge in interest

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<sup>20</sup>Ibid., p. 312.



is manifest in the popularity of psychological themes in the mass media, in the marketability of literature dispensing psychological advice on a wide variety of matters. It is reported that there is little knowledge about how this interest and knowledge is distributed through the population and the salience of the expressed interest.

To what extent has this increase in currency of psychiatric concepts been accompanied by a shift in attitudes toward mental illness? The strong stigma attached to mental illness appears to have persisted for a vast majority of people. What are the sources of this stigma and what effects the recent educational campaigns conducted by public agencies and voluntary lay mental health associations having on public attitudes.

Perhaps mental health professionals differ considerably in viewing mental illness primarily as a disease, as a disturbance in the functioning of the personality, or as a problem in living. Although these views overlap, emphasis may be put on one perspective or another. Those who view mental illness in disease terms are probably most likely to believe that constitutional factors are largely responsible for many disorders and that genetic and biological factors play an important if not prominent part in explaining the causes of mental illness. Those who view mental illnesses as primarily disturbances of the personality conceive of such problems of repertoires of behavior and patterns of

feeling which have become deeply rooted as a result of the child's social development and which persist through time. Finally, some mental health professionals maintain that what is called "mental illness" results in no specific sense from genetic or physical factors or from a deep-rooted psychological disorder. They argue rather that such difficulties are problems in living which develop because of confusion in communication, maintenance of particular social rules, and enforcement of certain moral standards. Such theorists maintain that persons are labeled mentally ill because they fail to conform to social standards either because of their own unique understandings and viewpoints or because of their failure to develop certain social skills which others define as necessary.

Some mental health professionals may view illness in terms of the failure of persons to adjust adequately to their social surroundings or to fit into a recognized social group. They frequently assume that such adjustment failures result from certain biological or psychological deficiencies in the person. The basic assumption that failure to conform implies disorder leads some mental health professionals to regard all deviants as sick, and they attempt to explain such behavior by seeking its psychological or biological roots. In applying a psychiatric viewpoint of deviance in general, we often fail to appreciate the extent to which non-conforming behavior is a consequence of learning



processes whereby persons within particular subgroups and social settings normally develop attitudes, values, and behavior patterns which are illegal or disapproved of within the larger society.

With so many conflicting views of mental illness, the conditions so labeled vary widely in character. For example, the lack of correspondence in the public's attitude toward physical and mental illness stems in part from the common tendency to equate all mental illness with acute psychoses. A large proportion of the population conceives of the mental patient as being "crazy," and do not ordinarily think of the depressed person or the highly anxious or the withdrawn person as suffering from a psychiatric condition.

The range of factors discussed in relation to the various responses to symptoms, fall into several categories according to Mechanic:<sup>21</sup>

- The visibility, recognizability, or perceptual salience of deviant signs and symptoms.
- The extent to which the person perceives the symptoms as serious (that is, the person's estimate of the present and future probabilities of danger).
- The extent to which symptoms disrupt work, and other social activities.
- The frequency of the appearance of deviant signs or symptoms, or their persistence.
- The tolerance threshold at those who are exposed to and evaluate the deviant signs and symptoms.

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<sup>21</sup>D. Mechanic, Medical Sociology: A Selective Review (New York: The Free Press, 1968), pp. 73-75.

- The information available to the knowledge of, and the cultural assumptions and understanding of the evaluator.
- The degree to which autistic psychological processes (i.e. perceptual processes that distort reality) are present.
- The presence of needs that conflict with the recognition of illness or the assumption of the sick role.
- The possibility that competing interpretations can be assigned to the symptoms once they are recognized.
- The availability of treatment resources, their physical proximity and the psychological and monetary costs of taking action--costs of time, money, and effort as well as stigmatization.

The extent to which mental illness is seen to exist depends on the perspectives taken and the criteria used to identify its presence. It is noted that if mental illness is viewed as the presence of a clearly established disabling condition, then the estimate of its occurrence is conservative. However, it is further noted that, if mental illness is also defined as the presence of psychosomatic conditions, anxiety, or any of a wide variety of problems in living, then we can characterize a large proportion of the population as having some form of mental illness.

Mechanic has grouped together factors affecting the recognition and the definition of both psychiatric and non-psychiatric disorders since we know that mental patients are often brought into care through different pathways from those followed by people who suffer from general medical conditions.

Many psychiatric conditions are defined not by the person himself but by others in the community who note the



person's bizarre behavior or failure to meet expected standards. Such labeling of a particular person as mentally ill depends on various contingencies. In addition to the influences of different personal and social factors, the character of the symptoms themselves exert a considerable effect on whether a person is defined as mentally ill.

Although the public's conception of mental illness has been changing to some extent,<sup>22</sup> there seems to be reluctance to define a relative or friend as mentally ill and a strong tendency to normalize and to deny symptoms that become apparent.

Scheff<sup>23</sup> notes that popular conceptions of mental illness are often over-simplified to the point where it is difficult to communicate the importance of careful theoretical formulations. The stereotype of mental illness as being virtually equivalent to the grossest and wildest insanity is still a significant component of public opinion even though the sophistication of the public, at least in verbal expression, has probably been increasing.

Nunnally<sup>24</sup> notes that the mass media plays an important role in educating the public about mental health

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<sup>22</sup> Ibid., p. 74.

<sup>23</sup> Thomas J. Scheff, Mental Illness and Social Processes (New York: Harper and Row, 1967), p. 3.

<sup>24</sup> Jum Nunnally, "Public Attitudes Toward Mental Health Professionals," American Psychologist, Vol. 13, no. 10 (1958), 48.

concepts. He adds that the mass media of communication are commonly thought to exert a powerful influence on what the general public feels and believes. Nunnally studied mental health phenomena in the mass media and the impact of the media on public opinion.

Nunnally<sup>25</sup> notes that a certain amount of information can be gathered from television and the daily newspapers concerning mental health. As a result, Nunnally has formulated two important propositions:

Proposition I: Information concerning mental illness appears relatively infrequently in mass media presentations.

It is noted that this proposition contradicts the assertion of the prevalence of mental health presentations in the mass media.

Proposition II: The media of mass communication generally present a distorted picture of mental health problems.

Nunnally<sup>26</sup> further notes that although some mass-media presentations, especially that specifically designed to convey information about mental health, provide a valid picture of mental illness, the number of such programs is very small in comparison to those which incidentally portray mental illness in a misleading light. Perhaps, an individual is more likely to see some aspect of neurotic

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<sup>25</sup>Ibid., p. 57.

<sup>26</sup>Ibid., p. 60.



behavior portrayed on television in an evening drama program than in a public-information program. It is noted that, in general, the causes, symptoms, methods of treatment, prognosis, and social effects of mental illness portrayed by the media are far removed from what the experts advocate.

Soddy and Ahrenfeldt<sup>27</sup> cite that popular attitudes toward psychiatry, mental disorder, and deviant behavior in general have not been adequately studied and analyzed.

Soddy and Ahrenfeldt suggest that in the course of social evolution and as a result of generally available education, popular attitudes and prejudices in this field have been appreciably modified among relatively large sections of the population.

The view has been expressed that in the past twelve years, there has been a greater acceptance of ordinary people of the mentally ill and mental health services. These trends suggest a much greater readiness to accept mental illness as an illness and not as something to be ashamed of. Up to now public concern for health, including mental health, has been mainly with disease, its treatment and prevention.

The Cummings<sup>28</sup> have noted the awareness of ignorance and fear of mental illness. They stress that ignorance and

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<sup>27</sup> Kenneth Soddy and Robert H. Ahrenfeldt, Mental Health in a Changing World (London: Tavistock Publications, 1965), p. 59.

<sup>28</sup> E. Cumming and J. Cumming, Closed Ranks (Cambridge, Mass.: Harvard Press, 1957), p. XI.

fear are not merely the result of the lack of information about mental illness, but are derived from and maintained by personal and community needs. In some cases the intensity of the feelings and functions underlying public attitudes toward mental illness is often overlooked by researchers.

Workers in the mental health movement, for several decades, have engaged in a moral crusade to induce the general public to adopt the proposition that "mental illness is the same as any other illness." Mental health professionals have worked diligently to convince the public to look at certain behaviors as manifestations of "illness," with the expectation that the sympathetic, nonrejecting valuations usually declared on physical illness would then be automatically declared on conduct deviations.

A review of studies by Sarbin and Mancuso<sup>29</sup> concluded that the public's attitude toward mental illness and mental health demonstrate that the moral enterprise of promoting the "mental illness" metaphor has failed (Cumming & Cumming, 1957; Nunnally, 1961; Philips, 1963). Sarbin and Mancuso note that the general public has not been persuaded that illness is an appropriate metaphor for deviant behavior. In spite of extensive public relations and propaganda programs, the man in the streets is not ready to use the label

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<sup>29</sup>Theodore Sarbin and James Mancuso, "Failure of a Moral Enterprise: Attitudes of the Public Toward Mental Illness," Journal of Consulting and Clinical Psychology, 35 (2) (1970), 159.



"mentally ill" to categorize people whose behavior would lead a professional diagnosis to apply a psychiatric label.

Sarbin and Mancuso note that the authors of books and articles on the public's attitudes toward mental illness are professional mental health workers--psychiatrists, psychologists, and social workers. These professionals are considered authorities who declare that the public is "misinformed," and the the public holds "incorrect attitudes," and that the public has not acquired a "scientific orientation." In some cases "public psychotherapy" is recommended by public health informers in the form of better public education about mental illness. There is the further consideration of what should the public be taught about deviant behavior. A further question is, could a sustained, powerful propaganda effort succeed in validating the mental illness metaphor, so that the label "mental illness" would produce the same neutral (nonstigmatizing) valuational response as are called forth by the labels pneumonia, cardiac failure, indigestion, etc.?

A number of studies of the public toward mental illness summarize evidence to support the validity of three major propositions: (1) the ordinary citizen is willing to tolerate and to accomodate extensive behavior deviations; (2) the public is hesitant about using the mental illness label for behavior deviations and usual solutions to life's problems which psychiatrically oriented





diagnosers would unhesitatingly label mental illness; (3) if the semantic tag, mental illness, is attached to a particular behavior, the public will tend to reject and to advocate isolation of the person whose behaviors are thus labeled (Sarbin and Mancuso).

Investigations have been initiated on the attitudes of the public toward mental illness and health. These studies have been conducted with the expressed purpose, implicitly or explicitly, of assessing the success of the continuing effort to have the public develop constructs which place deviant behavior within the mental illness paradigm.

An analysis of existing studies concerning the public's attitude toward mental illness seems to fall under three different approaches. The first approach is concerned with the technique of inquiring about mental illness. A second approach is concerned with asking the general public about deviant behaviors (considered by professionals to be manifestations of mental illness). A third and final approach is concerned with exploring the public view of mental health and illness through inquiring about how people construe their happiness--assumed to effect their own mental health status.

Nunnally's<sup>30</sup> 1961 study of the general public's conception of mental illness and health provide a pattern


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<sup>30</sup>Nunnally, Popular Conceptions . . . , 1961.

which has been used by different investigators. It is this pattern that will be utilized in the present study.

Nunnally asked his respondents to indicate the extent of their agreement with a variety of statements which purportedly described the nature of mental illness. His questionnaire included items such as the following: Women have no more emotional problems than men do; mental illness can usually be helped by a vacation or change in scene; the insane laugh more than normal people do; most suicides occur because of rejection in love; physical exhaustion does not lead to a nervous breakdown.

Nunnally subjected his data to a factor analysis. Ten factors emerged that represent a set of generalized attitudes toward mental illness. They are described as follows:

- The mentally ill are characterized by identifiable actions and appearances.
  - Will-power is the basis of one's personal adjustment.
  - Women are more prone to mental ill health than are men.
  - If one can avoid morbid thoughts he can avoid mental illness.
  - If one can obtain support and guidance from stronger persons he can avoid mental illness.
  - One who is mentally ill is in a hopeless condition.
  - Mental disorders are caused by immediate environmental pressures.
  - Emotional difficulties are not a matter of great concern.
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--Old people are more susceptible to mental illness.

--Mental illness is attributable to organic factors.<sup>31</sup>

The average person, in contrast to professional mental health professionals, respond more in the direction of agreeing with these ten general statements, though it was found that the average person's responses to mental health items were not drastically different from the average expert's responses. Nunnally further found that persons of higher education tend to show more agreement with the mental health experts, this being the case when higher educated persons are more youthful.

Bentz and Edgerton<sup>32</sup> feel that people are developing more positive attitudes toward mental illness, the mentally ill, mental health, and allied psychiatric professions, according to the findings in their recent study in rural South Carolina. Other recent attitude surveys also suggest that the public's ideas and perceptions of mental illness have been changing positively over the past few decades.

Bentz and Edgerton feel that the community leadership is playing a major role in the changing of the public's attitude toward mental illness and the mentally ill. They feel that leaders, by virtue of their positions, exert a

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<sup>31</sup>Ibid., p. 17.

<sup>32</sup>Bentz and Edgerton, p. 468.

tremendous influence on social norms, and should be considered as playing an important part in the process of attitude formation and change. The general public seems to follow social standards established and articulated by the community's leaders. It is felt that the leaders, through their innovations and examples, do influence the attitudes of the general public toward mental illness.

Bentz and Edgerton found that community leaders and the general public were very similar in their attitudes about mental illness. A majority of both groups agreed that it is the most serious health problem in the United States, that at least 10 percent of the people need treatment for some form of mental or emotional illness, that mental illness takes many forms with varying degrees of severity, and that all persons afflicted with mental illness do not exhibit the same behavioral manifestations. The authors also found that was optimism in both groups regarding treatment outcome: 82 percent of the public and 91 percent of the leaders believed something effective could be done for the mentally ill person.

With reference to attitudes regarding the etiology of mental illness, Bentz and Edgerton reported that a lack of moral strength and character was thought to be one of the main causes of mental illness by only 17 percent of the leader group, as compared with 51 percent of the general public.

Further, it was found that belief in the will to "avoid bad thoughts" as a deterrent to becoming mentally ill was subscribed to by only 7 percent of the leader group as compared with 37 percent of the general public.

With reference to attitudes toward mental hospitals, Bentz and Edgerton report that the leaders and the general public showed optimistic attitudes toward the treatment function of mental hospitals. It was reported that 92 percent of the leaders and 86 percent of the public rejected the statement that "little can be done for patients in a mental hospital except to see that they are comfortable and well fed." In addition, 85 percent of the leaders and 73 percent of the public disagree with the notion that "few people who enter mental hospitals ever leave."

The teacher-student attitudes are similar, in some respects, to the Bentz and Edgerton study. Teachers may be viewed as leaders in the sense that they are considered culture carriers. By virtue of their position teachers influence the formation of attitudes and opinions of their students.

The Bentz and Edgerton study reveals that the hopelessness toward prevention and treatment, and the stigma attached to associated institutions and personnel, seem to have changed drastically with the accelerated educational programs of recent years. The study also showed that a considerable proportion of the general public ascribed the

etiology of mental illness to deficits in moral strength or heredity.

Within the past decade a variety of studies have found the general public to be understanding and sympathetic toward mental illness and the mentally ill, although conclusions made by early investigators seem to run counter to the above assertion. Earlier studies by Shirley Star, Elaine and John Cumming, John Clausen, and Jum Nunnally, Jr. found that the general public viewed mental illness as the stereotype of deviant behavior, as being different from physical illness, isolates the mentally ill by denying personal contact with them, wants the mentally ill to be institutionalized punitively or custodially.<sup>33</sup>

In many cases subjects do not admit knowing people who are mentally ill. Spiro, Siassi, and Crocetti found that 63 percent of a population of subjects admitted knowing someone who had been hospitalized for mental illness.<sup>34</sup> In the same study, one percent of the population identified themselves as the hospitalized patient; one percent were a member of the immediate family, 12 percent, a relative, 14 percent, a close friend, and 25 percent, an acquaintance.

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<sup>33</sup>Herzl Spiro, Iradj Siassi, and Guido Crocetti, "Who's Kidding Whom," Mental Hygiene, 56 (2) (1972), 37.

<sup>34</sup>Ibid., p. 37.

Weinstein and Brill,<sup>35</sup> evaluated patients' and normals' attitudes toward the causes of mental illness. The authors devised various categories in which responses with reference to etiological factors may be placed. Economic problems referred to poverty and material deprivation, and various occupational problems. Social problems involved a number of different items concerned with patient's environment circumstances and behavioral problems--loneliness, anti-social behavior, and social stigmas. The category, social problems, was used for a wide variety of difficulties patients were having, being of personal or psychological nature. Some of the problems dealt with personal inadequacies and character flaws while others dealt with problems with other people.

The Weinstein and Brill study also showed that many of the patient samples were categorized under emotional symptoms because they listed subjective feelings (fear, worries) and psychiatric symptoms such as depression and anxiety as causes of their mental illness. Family problems consisted of responses concerning family relationships and difficulties. Somatic disorders dealt with such items as epilepsy, mental illness in family, overwork and other physical problems. Traumatic events consisted of shock situations, such as divorce or separation, death of a loved one, etc. Religious

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<sup>35</sup>Raymond Weinstein and Norman Brill, "Conceptions of Mental Illness by Patients and Normals," Mental Hygiene, 55 (1) (1971), 101-108.

problems comprised answers such as too much religious training, religious conflict in the family, etc. These categories and others consist of some of the possible etiological factors in mental illness.

Data seem to show that patients do not conceptualize mental illness in the same manner as normals. In general studies show that normals tend to view hereditary and organic factors, environmental factors and personality or emotional factors as causes of mental disorders, whereas mental patients mainly stressed environmental problems, personality or emotional disorders, and interpersonal and behavioral difficulties.

Some studies show that the public is more inclined than patients to regard mental illness as a quality "deeply ingrained" in the person, a consequence of some inborn predisposition or other organic abnormality, and less likely to relate illness to psychological stress.<sup>36</sup>

The most important findings of the Weinstein and Brill study may be summarized as follows:

--Comparison of a patient sample with samples of normal persons regarding attitudes toward the etiology of mental disorders revealed a consistent pattern of differences. This consistency lead the authors to conclude that patients and normals largely conceptualize mental illness in different terms.

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<sup>36</sup>Ibid., p. 106.



- Despite the overall differences in perception, both patients and normals assigned major importance to environmental problems and personality and emotional disorders as causes of mental illness.
- The most striking differences between patients and normal persons regarding the mentally ill lay in the degree to which hereditary and organic factors were believed to be responsible for mental disorder.
- Patients and normals also differed in the importance placed on interpersonal and behavioral difficulties. Patients visualized these problems as prime causes of their mental illness while normal persons did not assign too much weight to them.

Hospitalized mental patients tend to view their illness as something which merely "happened" to them due to their environment and personal experiences or the result of "nervousness"--regarding it as a cause instead of a symptom. Weinstein and Brill note that patients may differ in their conceptualization of etiology from the general public for a variety of reasons. One important reason may be the fact that they have been institutionalized. Patients may begin with popular conceptions of the causes of mental disorder, but their institutional experiences may lead to new

perspectives. Goffman's<sup>37</sup> idea of a "moral career" of the mental patient, whereby the hospitalization process leads to a transformation of identity, is congruent with this interpretation.

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<sup>37</sup>E. Goffman, Asylums: Essays on the Social Situation of Mental Patients and Other Inmates (Garden City, New York: Double Day Anchor, 1961), pp. 125-69.

## CHAPTER III

### METHODOLOGY AND HYPOTHESES

#### Contents of the Chapter

This section is concerned with the methodological procedures used in the study. First, this section presents a description of the samples used in the study; second, it gives a description of the instruments used for data collection; third, it presents an explanation of the dependent and independent variables; fourth, research hypotheses are presented; this section concludes with a summary.

#### Description of Samples

The description of samples presented here gives the general characteristics of schools and communities relative to the data presented in Part I of the analysis.

The characteristics of high school samples represent school districts (Kindergarten through 12th grade) rather than the school itself. Data pertaining to each school were not available (see Appendix E for additional school and community characteristics).

The present study utilizes five Michigan samples of high school students ( $n = 989$ ) and one "adult" sample ( $n = 71$ ).

In the initial planning for the study, it was believed that an important variable to investigate is the distinction between rural and urban schools. However, as the study progressed it was discovered that it was difficult to gain access to urban high schools.

The mental health topic is a very sensitive topic, and even more so in urban areas than in the more rural communities. In the urban high schools administrative anxiety about "mental health research" was met, even though assurances were given that we were not interested in making any assessments of anyone's psychological health.

An urban school was secured for this study, but it is quite distinct in certain ways. The Grand Rapids Christian High School is a Parochial Christian Reform School.

Two of the schools (Fowler and Ovid-Elsie) sampled for the purpose of this study are located in the open country and have a high percentage of rural and small town students.

Two other schools sampled (St. Johns and Williamston) are located in small towns; in each case about half of the students come from the towns and half from surrounding rural areas.

Four of the schools (Fowler, St. Johns, Williamston, and Ovid-Elsie) are located within 25 miles of the Lansing

urbanized area consisting of several hundred thousand people, and all four are within the 1970 Lansing Standard Metropolitan Statistical Area (SMSA).

In both St. Johns and Williamston a considerable number of students' parents commute to work in Lansing. Williamston is located at the junction point of the expanding urbanized metropolises of Lansing and Detroit.

Thus, while we did not acquire data from any central city schools from large urban areas, which would have been desirable, the foregoing information indicates that all of the schools from which we have data are subject to considerable urban-industrial influence.

### Samples

#### Fowler High School (n = 215)

Fowler High School is located in a small Michigan farm community. Over 90 percent of the students come in buses. The sample consisted of grades 9-12, comprising 47 percent males and 53 percent females. With reference to parental characteristics, 50 percent of the students' mothers received a high school education and the remainder are distributed below or above the high school level. The sample consisted of a high percentage of offspring coming from homes where the father is employed as "middle blue collar" workers and farms. Eighty-two percent of the Fowler sample resided on the farm or in the open country (83%) with 98 percent in communities less than 20,000.

The Fowler public school district occupies the 93rd percentile of the total 530 school districts in Michigan according to size. There are 871 students in the district and it ranks number 440 in terms of the number of pupils. The average teacher salary is \$12,606 and ranks number 222 when compared to the 530 districts.

The Village of Fowler has a population of 1,020 (refer to Appendix E for additional school and community characteristics).

Ovid-Elsie High School (n = 180)

This sample consisted of 180 students from grades 9-12. The sample consisted of 45 percent males and 55 percent females. Twenty seven percent of the students' fathers did not complete high school, whereas, 41 percent did complete high school. The remainder, 32 percent, went beyond high school. Fifty nine percent of the students' mothers completed high school, whereas, 25 percent did not complete high school. The remaining 16 percent received formal training beyond high school. A majority of the students come from "middle blue collar" or farm families (61%). Seventy two percent of the Ovid-Elsie students have resided on the farm or an open country and 97 percent lived in communities with a population less than 20,000 for most of their lives.

The Ovid-Elsie Area School district is in the 53 percentile of the 530 school districts according to size.

There are 2,448 students in the Ovid-Elsie school district ranking number 222. The average teacher salary is \$12,202 ranking number 278.

The Village of Ovid has a population of 1,650 and the Village of Elsie has a population of 988 (refer to Appendix E for additional school and community characteristics).

St. Johns High School (n = 205)

The St. Johns High School consisted of students in grades 9-12. The sample consisted of 46 percent males and 54 percent females. Thirty five percent of the student's fathers were high school graduates, whereas, 33 percent did not complete high school. The education of 32 percent exceeded high school. Fifty seven percent of the students' mothers graduated from high school, whereas, 19 percent did not complete high school. The remaining 24 percent of mothers went beyond high school. Forty percent of St. Johns students are from "middle blue collar" families and a much smaller percentage from farm families (8%) when compared to Fowler and Ovid-Elsie. Fifty percent of the respondents' fathers are employed in lower white, upper blue, and upper white collar occupations. Sixty two percent of the St. Johns students grew up on a farm or open country and 36 percent grew up in non-suburban towns or cities. Ninety seven percent lived most of their lives in communities with a population less than 20,000.

St. Johns Public School District is in the 20th percentile among the 530 Michigan districts in terms of size. There are 4,510 pupils in the district which ranks number 108. The average teacher salary is \$13,181, ranking number 169.

The town of St. Johns has a population of 6,672 (refer to Appendix E for additional school and community characteristics).

Williamston High School (n = 227)

The Williamston High School students consisted of students in grades 9-12. There were 52 percent males and 48 percent females. Twenty four percent of the students' fathers completed high school. A majority of the fathers had an education beyond high school, 57 percent. Forty two percent of the students' mothers received a high school education, whereas, 16 percent did not complete high school. Forty two percent received an education beyond high school. Forty six percent of the students came from families where the father was employed in "upper white collar" occupations. Forty five percent of the students lived on a farm or open country for most of their lives, whereas, 44 percent lived in nonsuburban towns or cities. Ninety percent of the students have resided in communities with a population less than 20,000 for most of their lives.



Williamston is in the 66th percentile of the 530 school districts in Michigan according to size. There are 1,897 pupils in the Williamston district ranking number 294. The average teacher salary is \$12,002 with a rank of 312 among all 530 school districts.

The town of Williamston has a population of 2,600 (refer to Appendix E for additional school and community characteristics).

Grand Rapids Christian High School  
(n = 162)

The Grand Rapids sample consisted of 162 high school students in grades 10-12. Forty seven percent of the sample consisted of males and 53 percent females. Fifteen percent of the students' fathers were less than high school graduates, whereas, 29 percent were high school graduates. Fifty six percent of the fathers were educated beyond high school. Considering the education of the mother, 8 percent were less than high school graduates, whereas, 45 percent were high school graduates. Forty seven percent received formal training beyond high school. A high percentage of the Grand Rapids students were from families whose fathers were employed in "upper white collar" professions (53%). Seventy percent of the sample resided in nonsuburban towns or cities and 83 percent lived in community size of 100,000-499,000.

The City of Grand Rapids has a population of 197,649 (see Appendix E for additional characteristics).

Grand Rapids Citizens (n = 71)

The "Grand Rapids Citizens" sample consisted of 71 military reservists of an Army hospital unit from the Grand Rapids area. The respondents were not confined to the City of Grand Rapids but resided throughout the entire county. The sample includes a wide variety of civilian occupations. The wide variety of civilian occupations suggests that this sample is probably more diverse than most military units (see Appendix F for social characteristics and distribution of occupations). These respondents are viewed as an "adult" sample that is believed to be somewhat more informed in the mental health area than citizens in general. They are comparable to the hospital staff because of their experience with both physical and psychological problems of health. For convenience, the sample is referred to as "Grand Rapids Citizens."

Instrumentation

Two instruments for data collection were used:

(a) a "35-item" mental health opinion questionnaire (Appendix A), and (b) a brief personal information sheet (Appendix B).

The opinion item questionnaire consisted of 35 mental health related statements with responses ranging

from "strongly agree" to "strongly disagree" on a seven-point scale. This instrument was developed by Nunnally<sup>1</sup> and associates and used in my M.A. thesis research. Nunnally performed a factor analysis on a 60-item version of his opinion instrument, resulting in the emergence of 10 factors which he identified as follows:

- I. Look and act different
- II. Will power
- III. Sex distinction
- IV. Avoidance of morbid thoughts
- V. Guidance and support
- VI. Hopelessness
- VII. External causes vs. personality
- VIII. Nonseriousness
- IX. Age function
- X. Organic causes

### Procedures

The instruments were administered to a sample of 989 high school students in Michigan. Information about the social characteristics of the students was obtained by use of a questionnaire. For the most part, mean responses to the 35 mental health items were used for analytical purposes. The instruments were administered in the classroom after acquiring the permission and cooperation of the

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<sup>1</sup>Nunnally, 1961.

principal. Students were not systemically sampled, but efforts were made to acquire data from required courses which the principal felt would represent a cross-section of all students enrolled in the school. Responses from approximately 50 students were obtained in each class in each school.

We administered the questionnaires to students ourselves, and offered to answer questions during the session in case there were difficulties in understanding the instruments.

#### Independent and Dependent Variables

The major dependent variables are (1) a measure of similarity to responses of the "general public," (2) a measure of similarity to responses of high school teachers, and (3) a "knowledgeability" score reflecting similarity of responses to those of professionals.

The independent variables are: school year (grades 9-12), sex, college plans, father's education, mother's education, father's occupation, reported experience with friends institutionalized or treated, reported experience with family members institutionalized or treated, reported experience with visiting a mental illness unit, and high school grade point average (GPA).

### Measure of Knowledgeability

The knowledgeability<sup>2</sup> score was developed by using 20 of the 35 mental health items used in the present study. The 20 items showing the greatest amount of consensus among professionals were chosen. Consensus by professionals on a given item indicates the correct response category. The closeness of a student's response to the "correct" response is taken as an indication of the student's "knowledgeability" about the content of each item. Responses range along a scale from 1-7:

	Disagree			Neutral		Agree	
Response Category	1	2	3	4	5	6	7

#### Scoring:

"Disagree" Item:	5	5	4	3	2	1	0
"Agree" Item:	0	1	2	3	4	5	5

The maximum score possible for an individual is 100; the minimum score 0. Consensus with experts is defined as the operational measure of knowledgeability (see Appendix C for items used to determine knowledgeability; see Appendix D for distribution of knowledgeability scores for high school students).

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<sup>2</sup>"Knowledgeability" here is slightly different from "knowledgeability" used in my M.A. thesis, 1972. Knowledgeability refers to the extent of knowledge about mental health concepts and does not refer to one's ability.

### Statement of Hypotheses

The major purpose of the study was to investigate the patterns of development of mental health opinions of high school students and to determine how the opinions are related to those of older persons in the population, namely high school teachers and the "general public."

The relationship between knowledgeability and several social variables was tested in a previous research study,<sup>3</sup> although only weak relationships were found with the exception of age (see Table 1). The 1972 study consisted of a sample of college students attending Michigan State University and the 1976 samples consisted of high school students in Michigan.

Table 1 shows related variables for the 1972 research (Smith, M.A. thesis). Some of the same variables used in the present study with high school students were tested in the 1972 study with college students. Identical variables include: sex, year in school, community size, community type, and experience with mental health problems.

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<sup>3</sup>Dorothy L. Smith, "College Students' Knowledgeability and Opinions About Mental Health in 1962 and 1971" (unpublished M.A. Thesis, Department of Sociology, Michigan State University, 1972).

TABLE 1.--Summary of the Relationship Between Social Variables and Knowledgeability  
for the 1972 Research.\*

Variables						
Knowledgeability						
Score and Year	Hypotheses	Trend	Sig. Level	Conclusion		
1. Age 28-38 1962 39-42 43-46 1971 47-50	Older-Higher  Older-Higher	As expected  As expected	p < .02  p < .01	Hypothesis supported Hypothesis supported.		
2. Sex 1962 1971	No relationship No relationship	None Weak indicated indication	. . . .  p < .10	Data not contrary to hypothesis Data not contrary to hypothesis		
3. Year in 1962 school 1971	Grads-Higher Grads-Higher	As expected None indicated	p < .05  . . . .	Hypothesis supported Trend: not significant		
4. Major 1962 1971	Education- Higher Education- Higher	None indicated None indicated	. . . .  p < .20	Data contrary to hypothesis Data contrary to hypothesis		
5. Marital 1962 1971	No relationship No relationship	None indicated None indicated	. . . .  . . . .	Data contrary to to hypothesis Data not contrary to hypothesis		
6. Community 1962 Type 1971	No relationship No relationship	None indicated None indicated	. . . .  . . . .	Data not contrary to hypothesis Data not contrary to hypothesis		

TABLE 1.--Continued.

Variables		Hypotheses	Trend	Sig. Level	Conclusion
Knowledgeability Score and Year					
7. Community Size	1962	No relationship	None indicated	. . . .	Data not contrary to hypothesis
	1971	No relationship	Weak indication	$p < .10$	Data not contrary to hypothesis
8. Suburb?	1962	No relationship	None indicated	$p < .20$	Data not contrary to hypothesis
	1971	No relationship	Weak indication	$p < .20$	Data not contrary to hypothesis
9. Friends Mentally Ill?	1962	Yes-Higher	As expected	$p < .10$	Hypothesis supported
	1971	Yes-Higher	As expected	$p < .05$	Hypothesis supported
10. Family Members Mentally Ill?	1962	Yes-Higher	As expected	$p < .20$	Trend supported
	1971	Yes-Higher	None indicated	. . . .	Trend: not significant

\*Results from M.A. thesis, Dorothy Smith, 1972.



The hypotheses below were formulated in an effort to demonstrate the above relationships:

Hypothesis 1: As grade levels increase (9-12) the mental health opinions of high school students will become increasingly similar to those of their teachers.

1A: The opinions of high school seniors will be more similar to teacher opinions than the opinions of other class levels.

The responses of teachers and students (grade levels) were tested for each of 35 mental health opinion items. The t-test for significance determined this relationship. The mean responses for each grade level for students (9-12) were compared to all teachers within a given school. This process was identical for each of the five high schools (Fowler, Ovid-Elsie, St. Johns, Williamston, Grand Rapids).

This relationship was tested in two interrelated ways: (1)  $d_{Fr-T} > d_{Sr-T}$  for each of 35 items; (2) number of  $d_{Fr-T}$  reaching significance  $>$  the number of  $d_{Sr-T}$  reaching significance ( $p = .05, .01$ ). [ $d_{Fr-T}$  = difference between freshmen and teachers;  $d_{Sr-T}$  = difference between seniors and teachers.]

Hypothesis 2: As grade levels increase (9-12) the mental health opinions of high school students will become increasingly similar to those of the "general public."

2A: The opinions of seniors will be more similar to the opinions of the "Grand Rapids Citizens" than the opinions of other class levels.

Hypotheses 1-2A will be tested by using the mean responses to the 35 mental health opinion statements.

Mean response for each of the four grade levels for each of the five schools will be compared to the mean responses of a sample chosen to be representative of the Grand Rapids general public.

Hypothesis 3: As grade levels increase (9-12) there will be an increase in mental health knowledge of high school students.

3A: Seniors will have a higher knowledgeability score than other class levels.

Knowledgeability will be measured by using 20 mental health opinion items with a high degree of consensus among professionals. High knowledgeability scores indicate similarity to the response of professionals defined as the "correctness" of a response. Low knowledgeability indicates the least desirable response to an item.

If it is correct to assume that the opinions of seniors demonstrate more social maturity, it is safe to hypothesize that social maturity is positively related to knowledgeability. Social maturity denotes a higher degree of socialization into the adult world. It is expected that seniors will be more socialized into the adult world than freshmen. The maturity assumption applies to hypotheses 1-6.

Hypothesis 4: Males and females will not differ on the knowledgeability score.

The t-statistic will be used to test responses to 20 mental health opinion items for each of the five schools. Unlike many other attitudes, mental health attitudes are not "sexually specific" but are "general-cultural." Previous mental health research shows little difference between the male/female variable (Smith, M.A. thesis).

Hypothesis 5: Grade point average will be positively related to knowledgeability.

Hypothesis 5 will be tested by comparing levels of GPA with the knowledgeability index (t-statistic).

A high GPA should represent more awareness of mental health concepts as well as a more enlightened perspective on worldly perspective in general. If this is so, then learning about mental health attitudes and opinions is parallel to learning about all such attitudes.

Hypothesis 6: Students who indicate definite plans for attending college will score higher on knowledgeability.

High school students who respond "probably yes" or "definitely yes" on the "college plans" question are speculated to score higher on the knowledgeability index.

Hypothesis 6 is synonymous with Hypothesis 5. Students who indicate definite plans for college may also have a high GPA. If this is so, then definite plans for attending college is also associated with more sophisticated opinions of mental health concepts and a higher level of social maturity.

Hypothesis 7: There will be a positive relationship between knowledgeability and mother's education.

Hypothesis 8: There will be a positive relationship between knowledgeability and father's education.

Hypotheses 7 and 8 will be tested by comparing the knowledgeability index to the levels of parental education (t-test).

It is expected that students whose parents are college graduates and above will become aware of mental health concepts earlier than students whose parents are high school graduates or less.

Hypothesis 9: Students whose fathers are employed in upper white collar professions will score higher on knowledgeability than students whose fathers are employed in upper blue collar professions and below.

Hypothesis 10: Respondents who have experienced the mental disorder (institutionalization or treatment) of a friend will score higher on knowledgeability.

Hypothesis 11: Respondents who have experienced the mental disorder (institutionalization or treatment) of a family member will score higher on knowledgeability. •

Hypothesis 12: Respondents who have visited a mental disorder unit will score higher on knowledgeability.

Hypotheses 10, 11 and 12 investigate the relationship between knowledgeability and experience with mental disorder. Experience with the mentally disturbed refers to friends, family members of the respondents and visitation to a mental illness unit. It is generally speculated that persons with

past experience with the mentally ill will be more knowledgeable and have more "enlightened" attitudes about mental illness and the mentally ill.

Students who have experienced mental illness with a friend or family member with respect to institutionalization or noninstitutionalization will be compared to students with no reported experience.

In the Smith study (1972) it was found that respondents who reported having prior experience with friends mentally ill were more knowledgeable about mental illness than respondents reporting no experience with friends being mentally ill. On the other hand, respondents reporting experience with family members mentally ill were not found to be any more knowledgeable than respondents reporting no prior knowledge of the mentally ill.

It is hoped that the present study will demonstrate more consistent findings concerning attitudes about mental health and experience with the mentally ill.

Hypothesis 13: The knowledgeability score for teachers will be higher than the knowledgeability score for students.

### Summary

The above hypotheses are designed to investigate the mental health attitudes among high school students as well as to determine how closely related attitudes are to older people in the population. Research literature shows

a great amount of data concerning attitudes about mental health; however, very little research is concerned with the development of mental health attitudes of high school students and how these attitudes compare to those of the general public. In the Nunnally study (1961) it was suggested that the mental health attitudes of high school students are quite different from those of the general public. The present study will proceed with the belief that the attitudes of high school students concerning mental health are not drastically different from those held by the "general public" or from those of older persons in the population.

It is hypothesized in this study that with the increase of grade levels and grade point average there will also be an increase in the general mental health knowledge of the students. The writer assumes that the high school years introduce the student to specific socializing agents which shape the attitudes of students across the whole range of their areas of knowledge as well as in the specific area of mental health attitudes.

Various studies have sought to delineate the relationship between attitudes about mental health and specific social characteristics (Nunnally, 1961; Hollingshed and Redlich, 1958; Crocetti, Lemkau et al.; 1961; Meyer, 1964; Bates, 1968; Freeman, 1961; Smith, 1972). These studies have dealt primarily with social characteristics of respondents themselves whereas the present study focuses primarily on the characteristics of students and parental social

characteristics. Some of the social characteristics investigated by these studies include education, occupation, age, sex, social class, rural-urban differences, among others.

The findings from these studies present conflicting conclusions between social characteristics and attitudes about mental health concepts. Conflicting views in this area suggest the need for further research into the relationship between social characteristics and attitudes toward mental health concepts.

## CHAPTER IV

### ANALYSIS

#### Contents of the Chapter

This section contains analysis and findings of this investigation. This section is divided into three parts: Part I gives a descriptive analysis of the distribution of the social characteristics which are the major independent variables of the hypotheses; Part II provides data showing the similarity of student responses to their teachers and the general public; Part III provides statistical data and tests designed to determine the relationship between knowledgeability and social characteristics. The analysis section is concluded with a summary of research findings.

#### Part I

#### Descriptive Analysis

Table 2 shows the sex distribution for all high school students for each school. The sex variables do not vary from 50 percent very much within schools as well as among schools.



TABLE 2.--Sex of Students in Each High School, by Number and Percentage.

	Male	Female	Total	NA*
<b>Fowler</b>				
N	98	111	209	6
%	46.9	53.1	100.0	2.8
<b>Ovid-Elsie</b>				
N	77	94	171	9
%	45.0	55.0	100.0	5.0
<b>St. Johns</b>				
N	95	110	205	0
%	46.3	53.7	100.0	--
<b>Williamston</b>				
N	115	106	221	6
%	52.0	48.0	100.0	2.6
<b>Grand Rapids</b>				
N	76	85	161	1
%	47.2	52.8	100.0	0.6
<b>Total</b>				
N	461	506	967	22
%	47.7	52.3	100.0	2.2

\*NA means that No Response was given to the question.

Table 3 shows the distribution of high school students based on their plans to attend college. It is hypothesized that students whose plans are to attend college after high school will be more knowledgeable about mental health concepts. It is assumed that the desire to achieve a higher education is associated with a higher level of awareness.

As indicated, Fowler students reported 53 percent having plans for attending college and 47 percent reporting

TABLE 3.--Students' Plans for Attending College in Each High School, by Number and Percentage.

Planning on College						
	Definitely Yes	Probably Yes	Probably No	Definitely No	Total	NA
Fowler						
N	27	87	76	24	214	1
%	12.6	40.7	35.5	11.2	100.0	.5
Ovid-Elsie						
N	38	56	55	26	175	5
%	21.7	32.0	31.4	14.9	100.0	2.8
St. Johns						
N	67	82	44	12	205	0
%	32.7	40.0	21.5	5.9	100.01	--
Williamston						
N	98	71	39	12	220	7
%	44.5	32.3	17.7	5.5	100.0	3.1
Grand Rapids						
N	76	57	17	11	161	1
%	47.2	35.4	10.6	6.8	100.0	.6
Total						
N	306	353	231	85	975	14
%	31.4	36.2	23.7	8.7	100.0	1.4

no present plans for attending college. Ovid students reported 54 percent attending college and 46 percent not attending college. St. Johns students reported 73 percent attending college and 27 percent not attending college. Williamston students reported 77 percent attending college and 23 percent not attending college and finally, Grand Rapids students reported 83 percent attending college and 17 percent not attending college. The highest percentage reporting plans for attending college was Grand Rapids (83%).

The schools are arrayed along a continuum from least to most urban (Fowler-Grand Rapids). If it is accurate to view the five schools in this manner, as indicated, "plans to attend college" increases with increased urbanism (13%, 22%, 33%, 45% and 47%, respectively for Fowler, Ovid-Elsie, St. Johns, Williamston and Grand Rapids).

Further, if "plans to attend college" increases along an urbanism continuum, then, increased urbanism may be projected as being associated with increased knowledge-ability.

Table 4 shows the distribution of father's education by school. Percentages show a higher percentage of the more rural schools with less than a high school education--Fowler, 51 percent, Ovid-Elsie, 37 percent, and St. Johns, 33 percent. Williamston and Grand Rapids show a considerably lower percentage not completing high school, 19 percent and 16 percent respectively, and a higher combined percentage with some college, completing college, and professional or

TABLE 4.--Reported Education of Fathers of Students in Each High School, by Number and Percentage.

Schools	Education							Total	NA
	8th Grade or less	9th-11th Grade	High School Grad.	Vocational School	Some College	College Grad.	Prof. or Grad. School		
Fowler N %	80 37.4	28 13.1	79 36.9	2 .9	8 3.7	14 6.5	3 1.4	214 99.9	1 .5
Ovid-Elsie N %	35 20.1	29 16.7	71 40.8	3 1.7	14 8.0	18 10.3	4 2.3	174 99.9	6 3.3
St. Johns N %	30 15.1	36 18.1	69 34.7	15 7.5	11 5.5	28 14.1	10 5.0	199 100.0	6 2.9
Williamston N %	11 5.0	30 13.7	54 24.7	7 3.2	34 15.5	64 29.2	19 8.7	219 100.0	8 3.5
Grand Rapids N %	10 6.2	15 9.4	46 28.8	1 .6	20 12.5	34 21.3	34 21.3	160 100.1	2 1.3
Total N %	166 17.2	138 14.3	319 33.0	28 2.9	87 9.0	158 16.4	70 7.2	966 100.0	23 2.4



graduate school. Percentages in these categories are 53 percent for Williamston and 55 percent for Grand Rapids as compared with the more rural schools comprising 12 percent for Fowler, 21 percent for Ovid-Elsie, and 25 percent for St. Johns.

Although father's education for the more rural schools is lower in the higher education categories, there is a significant percentage in the completed high school category: Fowler 37 percent, Ovid-Elsie 41 percent, and St. Johns 35 percent. Williamston and Grand Rapids have 25 percent and 29 percent respectively.

Williamston and Grand Rapids also have higher percentages in the higher levels of father's occupation (see Table 7). The community characteristics of Williamston and Grand Rapids are somewhat different from those of Fowler, Ovid-Elsie and St. Johns. Differences such as parental education, father's occupation, and degree of urbanism or urban influence.

Table 5 shows the distribution of mother's education by school. The overall distribution for this variable is basically the same as for father's education. However, percentages show that for the mother education variable, considerably more mothers have completed high school for all schools than fathers. Fowler 57 percent, Ovid-Elsie 59 percent, St. Johns 57 percent, Williamston 42 percent, and Grand Rapids 45 percent. When compared with father's education, Table 5 shows that fewer mothers are in the less

TABLE 5.--Reported Education of Mothers of Students in Each High School, by Number and Percentage.

Schools	Education							Total	NA
	8th Grade or less	9th-11th Grade	High School Grad.	Vocational School	Some College	College Grad.	Prof. or Grad. School		
Fowler									
N	39	28	122	7	14	3	2	215	0
%	18.1	13.0	56.7	3.3	6.5	1.4	.9	99.9	--
Ovid-Elsie									
N	10	34	103	2	10	14	3	175	5
%	5.7	19.4	58.9	1.1	5.7	8.0	1.1	99.9	2.8
St. Johns									
N	12	26	115	8	16	23	3	203	2
%	5.9	12.8	56.7	3.9	7.9	11.3	1.5	100.0	1.0
Williamston									
N	5	30	92	10	33	40	10	220	7
%	2.3	13.6	41.8	4.5	15.0	18.2	4.5	99.9	
Grand Rapids									
N	5	8	73	3	25	30	17	161	1
%	3.1	5.0	45.3	1.9	15.5	18.6	10.6	100.0	.6
Total									
N	71	126	505	30	98	110	34	974	15
%	7.3	12.9	51.8	3.1	10.1	11.3	3.5	100.0	1.5

than high school categories for all schools. This observation is also true for the combined categories of some college, college graduate, and professional or graduate school.

Table 6 shows a summary of Tables 4 and 5. The distribution shows that more fathers than mothers have less than a high school education for all schools: 51 percent and 31 percent (Fowler), 37 percent and 25 percent (Ovid-Elsie), 33 percent and 19 percent (St. Johns), 19 percent and 16 percent (Williamston), and 16 percent and 8 percent (Grand Rapids). As generally observed, more fathers than mothers have more than a high school education: 11 percent and 9 percent (Fowler), 21 percent and 15 percent (Ovid-Elsie), 25 percent and 21 percent (St. Johns), 53 percent and 38 percent (Williamston), and 55 percent and 45 percent (Grand Rapids).

Table 7 shows a distribution of father's occupation by school. "Upper white collar" refers to positions such as: executive, professional, business owner, merchant, manager, etc.; "sales" or "engineer" if college graduate. "Upper blue collar" refers to skilled trades: electrician, plumber, tool maker, carpenter, foreman, etc. "engineer" if not college graduate. "Lower white collar" refers to clerical, office, secretarial, service, police; "sales" if not college graduate. "Middle blue collar" refers to factory, shop, mechanic, operator, construction and driver. Farm refers to owner-operator and does not include farm



**TABLE 6.--Reported Parental Education in Each High School,  
by Percentage.**

Schools	Parental Level of Education			Total
	Less than High School	High School Graduate and Vocational	Some College and above	
<b>Fowler</b>				
Father %	51.0	38.0	11.0	100.0
Mother %	31.0	60.0	9.0	100.0
<b>Ovid-Elsie</b>				
Father %	37.0	42.0	21.0	100.0
Mother %	25.0	60.0	15.0	100.0
<b>St. Johns</b>				
Father %	33.0	42.0	25.0	100.0
Mother %	19.0	60.0	21.0	100.0
<b>Williamston</b>				
Father %	19.0	28.0	53.0	100.0
Mother %	16.0	46.0	38.0	100.0
<b>Grand Rapids</b>				
Father %	16.0	29.0	55.0	100.0
Mother %	8.0	47.0	45.0	100.0



hands. "Lower blue collar" refers to unskilled, manual custodian, farm hand, and maintenance.

Table 7 shows that a majority of father occupations in any single category are concentrated in the "middle blue collar" category for the more rural areas. Father occupations for Williamston and Grand Rapids are concentrated in the "Upper white collar" category and decrease consistently from "Upper white collar" to "Lower blue collar."

Table 8 shows the distribution of grade point average by school. The highest percentage of students in any single category reported a GPA of B-, B. The majority of students reported a GPA between C-B. The percentage of students who report higher grade point averages varies considerably among schools. However, I have no idea of the implications associated with such variation.

Table 9 shows a distribution of community type. Community type refers to the type of community the respondents have lived for most of their lives. The percentages decrease for "farm or open country" along the rural-urban continuum. Fowler 83 percent, Ovid-Elsie 72 percent, St. Johns 62 percent, Williamston 45 percent, and Grand Rapids 9.3 percent. The percentages are almost evenly distributed for Williamston on the variables "farm or open country" and "nonsuburban town or city"--45 percent and 44 percent respectively. Along the rural-urban continuum, Grand Rapids is considered the most urban with 9 percent of the

TABLE 8.--Distribution of Grade Point Average of Students for Each High School,  
by Number and Percentage.

Schools	GPA					Total	NA
	3.7-over (A,A-)	3.2-3.6 (B+)	2.7-3.1 (B,B-)	2.2-2.6 (C+-C)	2.1-less (C-,D)		
Fowler N %	30 14.4	45 21.5	82 39.2	48 23.0	4 1.9	209 100.0	6 2.8
Ovid-Elsie N %	10 6.1	20 12.3	66 40.5	56 34.4	11 6.7	163 100.0	17 9.4
St. Johns N %	12 6.0	37 18.4	85 42.3	57 28.4	10 5.0	201 100.1	4 2.0
Williamston N %	31 14.5	55 25.7	81 37.9	41 19.2	6 2.8	214 100.1	13 5.7
Grand Rapids N %	7 4.5	30 19.5	76 49.4	34 22.1	7 4.5	154 100.0	8 4.9
Total N %	90 9.6	187 19.9	390 41.4	236 25.1	38 4.0	941 100.0	48 5.10

TABLE 9.--Community Type of Students While "Growing Up"  
for Each High School, by Number and Percentage.

Schools	Community Type			Total	NA
	Farm or Open Country	Suburban Town or City	Non- Suburban Town or City		
Fowler					
N	177	3	34	214	1
%	82.7	1.4	15.9	100.0	.5
Ovid-Elsie					
N	124	12	37	173	7
%	71.7	6.9	21.4	100.0	3.9
St. Johns					
N	125	6	72	203	2
%	61.6	3.0	35.5	100.1	1.0
Williamston					
N	98	25	96	219	8
%	44.7	11.4	43.8	99.9	3.5
Grand Rapids					
N	15	33	113	161	1
%	9.3	20.5	70.2	100.0	.6
Total					
N	539	79	352	970	19
%	55.6	8.1	36.3	100.0	1.9

students reporting a community type "farm or open country" and 70 percent reporting "nonsuburban town or city."

Table 10 gives a distribution of the size of community the respondents have resided for most of their lives. As indicated the vast majority of all respondents across schools have lived in communities with a population of less than 20,000. The majority of the Grand Rapids high

TABLE 10.--Community Size of Students While "Growing Up" for Each High School,  
by Number and Percentage.

Schools	Size						Total	NA
	Less than 20,000	20,000- 99,000	100,000- 499,000	500,000 1 million	Over 1 million			
Fowler N %	208 97.7	4 1.9	1 .5	0 --	0 --	213 100.1	2 .9	
Ovid-Elsie N %	166 96.5	4 2.3	2 1.2	0 --	0 --	172 100.0	8 4.4	
St. Johns N %	196 96.6	4 2.0	2 1.0	0 --	1 .5	203 100.1	2 1.0	
Williamston N %	195 89.9	6 2.8	10 4.6	1 .5	5 2.3	217 100.1	10 4.4	
Grand Rapids N %	21 13.6	2 1.3	128 83.1	3 1.9	0 --	154 99.9	8 4.9	
Total N %	786 82.0	20 2.1	143 14.9	4 .4	6 .6	959 100.0	30 3.1	

school students indicate a population of 100,000-499,000 for community size.

Table 11 shows the number of "yes" responses to each of the separate mental health experience questions. Nine questions were used to measure mental health experience. A variety of questions were used because some individuals may have different experiences with mental health problems, and a wider range of questions increases the chance of acquiring a broader range of experiences.

The following nine questions were used:

Have any of your friends or members of your family ever been admitted to an institution for mental illness?

Friends: Yes \_\_\_\_\_ No \_\_\_\_\_  
Family: Yes \_\_\_\_\_ No \_\_\_\_\_

Have any of your friends or members of your family ever been professionally treated for mental illness or mental disorder?

Friends: Yes \_\_\_\_\_ No \_\_\_\_\_  
Family: Yes \_\_\_\_\_ No \_\_\_\_\_

Have any of your friends or members of your family ever been generally viewed by their acquaintances as mentally ill (whether or not they received professional care)?

Friends: Yes \_\_\_\_\_ No \_\_\_\_\_  
Family: Yes \_\_\_\_\_ No \_\_\_\_\_

Have you ever visited: (not as a client)

A mental hospital? Yes \_\_\_\_\_ No \_\_\_\_\_

The psychiatric ward of a general hospital?

Yes \_\_\_\_\_ No \_\_\_\_\_

A community mental health center or clinic?

Yes \_\_\_\_\_ No \_\_\_\_\_

TABLE 11.--Reported Experience With Mental Health Problems for Each High School, by Number and Percentage.

Schools	Number and Percentage Reporting Each Kind of Experience									
	Friends in Institution	Family in Institution	Friends Treated	Family Treated	Friends Ill	Family Ill	Visited Mental Hospital	Visited Psychiatric Ward	Visited Community MH Center	
Fowler										
N	14	24	18	27	22	19	17	14	21	
%	6.5	11.2	8.4	12.6	10.2	8.8	7.9	6.5	9.8	
Ovid-Elsie										
N	26	21	33	31	32	30	17	18	31	
%	14.4	11.7	18.3	17.2	17.8	16.7	9.4	10.0	17.2	
St. Johns										
N	26	20	36	34	37	28	14	21	34	
%	12.7	9.8	17.6	16.6	18.0	17.7	6.8	10.2	16.6	
Williamston										
N	27	26	34	45	27	43	46	39	59	
%	11.9	11.5	15.0	19.8	11.9	18.9	20.3	17.2	26.0	
Grand Rapids										
N	46	26	51	37	34	26	48	17	45	
%	28.4	16.0	31.5	22.8	21.0	16.0	29.6	10.5	27.8	
Total										
N	139	117	172	174	152	146	142	109	190	



Some mentally ill people receive professional treatment without being hospitalized. Some people who are regarded as mentally ill or psychologically disordered by friends and family, may or may not receive professional care. This is why several questions were asked which may seem to be overlapping.

Table 11 shows that Fowler High School students have the least amount of experience with the institutionalization of friends or family members (18%). Ovid-Elsie students reported 26 percent, St. Johns students reported 23 percent, Williamston students reported 23 percent and Grand Rapids students reported 44 percent. Fowler and Grand Rapids represent the two extremes. Fowler students have the least amount of experience and the Grand Rapids students have the greatest amount of experience with the institutionalization of friends or family members.

The amount of mental health experience shown for the treatment of friends or family indicates 26 percent for Ovid-Elsie, 34 percent for St. Johns, and 35 percent for Williamston. Again Fowler and Grand Rapids represent the extremes with percentages 21 and 54 respectively.

When asked the question of whether any friends or family members have ever been viewed as mentally ill by acquaintances, the number of "yes" responses were distributed as: 19 percent (Fowler), 35 percent (Ovid-Elsie), 36 percent (St. Johns), 31 percent (Williamston), and 37 percent (Grand Rapids). Consistent with the above analysis, Fowler

TABLE 12.--Reported Experience With Friends' Mental Disorder  
for Each High School, by Number and Percentage.

Schools	Experience				Total	NA
	Number of "Yes" Responses					
	0	1	2	3		
Fowler						
N	186	15	6	8	215	--
%	86.5	7.0	2.8	3.7	100.0	--
Ovid-Elsie						
N	131	24	9	16	180	--
%	72.8	13.3	5.0	8.9	100.0	--
St. Johns						
N	150	26	15	14	205	--
%	73.2	12.7	7.3	6.8	100.0	--
Williamston						
N	180	15	21	10	226	1
%	79.6	6.6	9.3	4.4	99.9	.4
Grand Rapids						
N	102	19	16	25	162	--
%	63.0	11.7	9.9	15.4	100.0	--
Total						
N	749	99	67	73	988	1
%	75.8	10.0	6.8	7.4	100.0	.1

students report the least experience and Grand Rapids students the most experience.

Students who answered "yes" when asked if they had ever visited a mental health unit (mental hospital, psychiatric ward of a general hospital, or a community mental health clinic), the responses in percentages were 24 percent (Fowler), 37 percent (Ovid-Elsie), 34 percent (St. Johns), 64 percent (Williamston), and 68 percent (Grand Rapids).

Table 12 shows the index of experience with mental disorder with friends. The questions read as follows:

- (1) Have any of your friends ever been admitted to an institution for mental illness?
- (2) Have any of your friends ever been professionally treated for mental illness or mental disorder (without being hospitalized)?
- (3) Have any of your friends ever been generally viewed by their acquaintances as mentally ill (whether or not they received professional care)?

It is hypothesized that high school students who have experienced mental illness with a friend will be more knowledgeable about mental health concepts. Table 12 shows a majority of students reported no experience with friends being mentally ill. No experience with friends being mentally ill includes Fowler 87 percent, Ovid-Elsie 73

percent, St. Johns 73 percent, Williamston 80 percent, and Grand Rapids 63 percent. Responses indicating experience with one or all three indexes include 14 percent Fowler, 27 percent Ovid-Elsie, 27 percent St. Johns, 20 percent Williamston, and 37 percent Grand Rapids. Fowler high school students reported least experience with friends being mentally ill (14 percent), whereas Grand Rapids students report the most experience for the "friends mentally ill" variable.

Table 13 shows the combined family experience. More specifically, how often one has experienced mental disorder in the family in terms of (1) admission to a mental institution, (2) professionally treated for a mental disorder without being hospitalized, and (3) being viewed by their acquaintances as mentally ill whether they received professional care. Results show that of the students sampled from Fowler high school, 84 percent reported no experience with the family variable. Students from Ovid-Elsie, St. Johns, Williamston, and Grand Rapids reported 74 percent, 78 percent, 72 percent, and 69 percent respectively on the "no experience with family" variable.

I expect students with some experience with mental disorder of a family member will be more knowledgeable about mental health concepts than students with no experience. Assuming that the rural-urban continuum is a correct way to view the five schools, I would also expect an increase in

TABLE 13.--Reported Experience with Family's Mental Disorder for Each High School, by Number and Percentage.

Schools	Experience				Total	NA
	Number of "Yes" Responses					
	0	1	2	3		
Fowler						
N	181	10	12	12	215	--
%	84.2	4.7	5.6	5.7	100.0	--
Ovid-Elsie						
N	133	22	15	10	180	--
%	73.9	12.2	8.3	5.6	100.0	--
St. Johns						
N	160	18	17	10	205	--
%	78.0	8.8	8.3	4.9	100.0	--
Williamston						
N	163	29	16	18	226	1
%	72.1	12.8	7.1	8.0	100.0	.4
Grand Rapids						
N	112	23	15	12	162	--
%	69.1	14.2	9.3	7.4	100.0	--
Total						
N	749	102	75	62	988	1
%	75.8	10.3	7.6	6.3	100.0	.1

knowledgeability from least to most urban. Table 13 indicates that more experience is somewhat associated with more urbanism; 16 percent (Fowler), 26 percent (Ovid-Elsie), 22 percent (St. Johns), 28 percent (Williamston), and 31 percent (Grand Rapids).

The visitation variable investigates the amount of experience a respondent has with (a) visiting a mental hospital, (2) visiting the psychiatric ward of a general hospital, and (3) visiting a community mental health center or clinic.

Table 14 shows an increase in combined visitation along the rural-urban continuum with Fowler students having the least amount of visitation experience (17%), and Grand Rapids the greatest amount (41%). Twenty one percent of the Ovid-Elsie students reported experience with visiting one or all three of the psychiatric units. St. Johns students reported 23 percent and Williamston students reported 36 percent combined for this variable.

Tables 11-14 demonstrate that the proportion of students showing no experience with mental health problems does not vary remarkably from school to school. This pattern may be inversely related to urbanism.

Table 15 shows the combined reported experience with mental disorder. The following questions were asked:

1. Have any of your friends or members of your family ever been admitted to an institution for mental illness?
2. Have any of your friends or family members ever been professionally treated for mental illness or mental disorder (without being hospitalized?

TABLE 14.--Reported Visitation Experience with Mental Disorder for Each High School, by Number and Percentage.

Have you Visited a Mental Institution?						
	Number of "Yes" Responses					
Schools	0	1	2	3	Total	NA
<hr/>						
Fowler						
N	186	13	8	8	215	--
%	86.5	6.0	3.7	3.7	99.9	--
Ovid-Elsie						
N	142	18	12	8	180	--
%	78.9	10.0	6.7	4.4	100.0	--
St. Johns						
N	157	33	9	6	205	--
%	76.6	16.1	4.4	2.9	100.0	--
Williamston						
N	144	39	28	15	226	1
%	63.7	17.3	12.4	6.6	100.0	.4
Grand Rapids						
N	96	33	27	6	162	--
%	59.3	20.4	16.7	3.7	100.1	--
Total						
N	725	136	84	43	988	1
%	73.4	13.8	8.5	4.3	100.0	.1

TABLE 15.--Combined Experience with Mental Health Problems for Each High School, by Number and Percentage.

Schools	Combined Experience										Total
	0	1	2	3	4	5	6	7	8	9	
Fowler											
N	154	17	17	16	2	4	5	0	0	0	215
%	71.6	8.0	8.0	7.4	.9	1.9	2.3	.0	.0	.0	100.1
Ovid-Elsie											
%	89	27	25	22	7	3	3	1	3	0	180
	49.4	15.0	13.9	12.2	3.9	1.7	1.7	.6	1.7	.0	100.1
St. Johns											
N	107	29	25	25	10	5	1	2	0	1	205
%	52.2	14.1	12.2	12.2	4.9	2.4	.5	1.0	.0	.5	100.0
Williamston											
N	101	34	25	37	15	7	4	3	1	0	227
%	44.5	15.0	11.0	16.3	6.6	3.1	1.8	1.3	.4	.0	100.0
Grand Rapids											
N	53	23	28	23	15	11	6	2	1	0	162
%	32.7	14.2	17.3	14.2	9.3	6.8	3.7	1.2	.6	.0	100.0
Total											
N	504	130	120	123	49	30	19	8	5	1	989
%	51.0	13.2	12.1	12.4	5.0	3.0	1.9	.8	.5	.1	100.0



3. Have any of your friends or members of your family ever been generally viewed by their acquaintances as mentally ill (whether or not they received professional care)?
4. Have you ever visited (a) a mental hospital, (b) a psychiatric ward of a general hospital, (c) a community mental health center or clinic?

For the combined experience index, the students were asked a total of nine questions (above). The combined index is important because it accentuates the differences among schools. Results of Table 15 show that Fowler students indicate least experience with mental health problems, whereas, Grand Rapids students demonstrate the most experience. As indicated, approximately 7 out of 10 Fowler students reported no experience; by contrast 7 out of 10 Grand Rapids students reported some experience.

Table 16 shows a distribution of the number of mothers employed. The percentages for each school increase along the rural-urban continuum for Fowler (32%), Ovid-Elsie 47 percent, and St. Johns 64 percent. However, this pattern changes for Williamston (60%) and Grand Rapids (48%). The schools differ considerably on the employment of mother variable.

The analysis of social characteristics shows some complex ways in which the characteristics of the students,

TABLE 16.--Reported Employment of Mothers of Students in  
Each High School, by Number and Percentage.

Schools	Employed?		Total	NA
	Yes	No		
Fowler				
N	69	146	215	0
%	32.1	67.9	100.0	.0
Ovid-Elsie				
N	82	92	174	6
%	47.1	52.9	100.0	3.3
St. Johns				
N	129	73	202	3
%	63.9	36.1	100.1	1.5
Williamston				
N	131	88	219	8
%	59.8	40.2	100.0	3.5
Grand Rapids				
N	78	83	161	1
%	48.4	51.6	100.0	.6
Total				
N	489	482	971	18
%	50.4	49.6	100.0	1.9



their school, and communities differ. One would probably think that the schools are very similar with reference to student characteristics, however, the schools are quite diverse in social characteristics, perhaps much more so than one would initially expect. Differences in school characteristics reflect the complexity of how social characteristics might affect mental health opinions. A simple sociological model may not be appropriate.

## Part II

The following hypotheses were tested by comparing the mean responses to 35 mental health opinions in an effort to determine the relationship between the responses of students and teachers, and students and the "Grand Rapids Citizens."

Hypothesis 1: As grade levels increase (9-12) the mental health opinions of high school students will become increasingly similar to those of their teachers.

1A: The opinions of high school seniors will be more similar to the opinions of their teachers than the opinions of other class levels.

Hypothesis 2: As grade levels increase (9-12) the mental health opinions of high school students will become increasingly similar to those of the "general public."

2A: The opinions of high school seniors will be more similar to the opinions of the "Grand Rapids Citizens" than the opinions of other class levels.

Part II is divided into Part II-A and Part II-B. Part II-A shows the relationship between students and teachers, and addresses hypothesis 1 and 1A; Part II-B demonstrates the relationship between students and the "Grand Rapids Citizens," and focuses on hypothesis 2 and 2A.

Table 17 shows the mental health opinion statements used throughout the research. The statements are grouped according to Townsend's factors.<sup>1</sup> Townsend performed a factor analysis using responses to these statements by 728 Seattle, Washington high school students. Townsend's factors were quite similar to Nunnally's factors. The items are grouped for convenience in assessing the content of the item.

Since we are looking at mean responses of each grade on each of 35 opinion statements (Tables 18-23) in each school, the probability values associated with t-tests are not taken literally but are presented for informational purposes. We are not looking at the probability value for any single one of the statements but are rather looking at the trends for the entire set of 35 items, and asking whether those patterns (particularly seniors compared to other grades) depart from randomness.

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<sup>1</sup>J. Marshall Townsend, "Cultural Conceptions, Mental Disorders, and Social Roles: A Comparison of Germany and America," American Sociological Review, 40:739-752 (1975).

Part II-A: Relationship Between  
Students and Teachers

TABLE 17.--Mental Health Opinion Statements.

A. Environmental Factors	
12.	People cannot maintain good mental health without the support of strong persons in their environment.
15.	Mental illness can usually be helped by a vacation or change in scene.
4.	Helping the mentally ill person with his financial and social problems often improves his condition.
B. Physical Causes	
20.	Mental disorder is usually brought on by physical causes.
2.	Nervous breakdowns seldom have a physical origin.
23.	Almost any disease that attacks the nervous system is likely to bring on insanity.
C. Negative Stereotypes	
16.	The insane laugh more than normal people.
26.	Most of the people in mental hospitals speak in words that can be understood.
7.	You can tell a person who is mentally ill from his appearance.
38.	The eyes of the insane are glassy.
*28.	Most people can recognize the type of person who is likely to have a nervous breakdown.

TABLE 17.--Continued.

D. Will Power	
10.	People who keep themselves occupied with pleasant thoughts seldom become mentally ill.
13.	Will power alone will not cure mental disorders.
25.	Mental health is largely a matter of try to control the emotions.
24.	If a person concentrates on happy memories he will not be bothered by unpleasant things in the present.
8.	People who become mentally ill have little will power.
35.	A person cannot rid himself of unpleasant memories by trying hard to forget them.
E. Damage, Incurability, Seriousness	
11.	Few people who enter mental hospitals ever leave.
18.	Mental disorder is not a hopeless condition.
19.	Mental health is one of the most important national problems.
27.	There is not much that can be done for a person who develops a mental disorder.
1.	Mental disorder is one of the most damaging illnesses that a person can have.
3.	The seriousness of the mental health problem in this country has been exaggerated.
5.	Mental patients usually make good adjustments to society when they are released.
*30.	Many of the people who go to mental hospitals are able to return to work in society again.

TABLE 17.--Continued.

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F. Miscellaneous

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29. Most suicides occur because of rejection in love.
- \*34. People who go from doctor to doctor with many complaints know that there is nothing really wrong with them.
- 

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G. Age and Childhood Experiences

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9. Most mental disturbances in adults can be traced to emotional experiences in childhood.
- \*31. Disappointments do not affect children as much as they do adults.
- \*32. Most of the insanity cases are found in people over fifty years of age.
- 

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H. Role of Psychiatrist

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22. Psychiatrists try to teach the mental patient to hold in their strong emotions.
21. The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind.
17. Psychiatrists try to show the mental patient where his ideas are incorrect.
6. The good psychiatrist acts like a father to his patients.
- 

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I. Sex Differences

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14. Women have no more emotional problems than men do.
- 

\*Statements that are not included in Townsend's factor analysis but were placed in the groups according to item content closest to Townsend's factors.



TABLE 18.--Comparison of Mean Responses to 35 Mental Health Opinion Statements for Students and Teachers (Fowler High School, n = 215).

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
12	4.70	4.75	5.05	4.58	3.43	.75	.01	.05	Fr
15	3.85	4.02	3.77	4.00	3.21	.11	.18	.86	Jr
4	5.04	4.84	4.64	4.19	5.50	.01	.26	.02	Fr
20	3.55	3.74	3.44	3.04	2.86	.12	.11	.70	Sr
2	3.62	3.60	3.44	3.92	3.71	.41	.86	.74	F
23	3.17	3.61	3.19	2.42	2.50	.01	.11	.87	Sr
16	3.13	3.51	3.42	3.00	1.86	.70	.01	.03	Sr
26	4.21	4.28	4.72	4.21	4.57	.99	.50	.53	Jr
7	3.13	2.95	2.42	2.19	1.14	.01	.0003	.02	Sr
33	3.49	3.40	3.32	2.77	1.79	.02	.01	.05	Sr
28	3.72	3.84	3.58	2.90	2.43	.01	.01	.34	Sr
10	3.72	4.05	3.35	3.10	3.36	.08	.50	.64	Jr
13	4.91	4.21	4.93	5.02	5.57	.73	.15	.34	Sr
25	4.24	4.21	4.40	4.27	3.07	.94	.02	.04	So

TABLE 18.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
24	3.25	3.93	3.02	2.73	2.50	.12	.14	.61	Sr
8	3.76	4.05	3.74	3.08	2.14	.06	.003	.06	Sr
35	4.57	4.16	4.74	4.56	5.00	.99	.38	.47	Jr
11	2.76	2.98	2.93	3.25	1.79	.39	.01	.02	Fr
18	5.66	5.77	5.88	5.98	6.57	.30	.03	.17	Sr
19	4.87	4.35	5.02	5.17	6.14	.39	.01	.07	Sr
27	2.60	2.63	2.60	1.90	1.21	.01	.001	.03	Sr
1	4.91	4.90	4.63	4.17	4.07	.04	.12	.87	Sr
3	3.15	3.56	3.35	2.75	2.00	.24	.02	.15	Sr
5	3.98	3.81	3.74	3.33	4.21	.04	.59	.08	Fr
30	4.66	4.42	4.74	4.27	6.07	.22	.01	.01	Jr
29	4.62	4.61	4.77	4.42	3.00	.58	.002	.02	Sr
34	3.51	3.39	3.75	2.58	2.07	.003	.01	.30	Sr
9	5.23	5.26	5.51	5.50	4.64	.39	.21	.10	Fr



TABLE 18.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers*
						Fr-Sr	Fr-T	Sr-T	
31	3.04	3.21	2.84	2.75	2.29	.43	.17	.40	Sr
32	3.28	3.12	2.79	2.44	2.71	.003	.17	.50	Jr
22	3.76	3.75	3.83	2.96	2.57	.03	.02	.49	Sr
21	3.83	3.67	4.00	3.15	2.36	.05	.001	.15	Sr
17	4.34	4.47	4.39	3.96	4.29	.23	.90	.50	Fr
6	4.76	4.53	4.67	4.04	2.43	.03	.01	.001	Sr
14	4.43	4.33	3.91	4.46	3.93	.95	.37	.41	Jr

\*Not all of the mean responses pertaining to Tables 18-23 are significantly different by t-test when comparing Freshmen/Senior, Freshmen/Teacher, and Senior/Teacher.

TABLE 18-A.--Number of Student Mean Responses Closest to  
Teacher Mean Responses, by Class Level  
(Fowler High School, n = 215).

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Freshmen	Sophomore	Class Level		Total
		Junior	Senior	
7	1	7	20	35

---

Number of Statements with Means  
Significantly Different, by t-test:

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$p \leq .05$

Fr-Sr	13
Fr-T	18
Sr-T	11

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TABLE 19.--Comparison of Mean Responses to 35 Mental Health Opinion Statements for Students and Teachers (Ovid-Elsie High School, n = 177).

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
12	3.97	4.73	4.95	4.30	4.52	.45	.23	.66	So
15	3.84	3.57	3.80	3.30	3.22	.16	.18	.83	Sr
4	5.26	5.05	4.80	4.81	4.83	.23	.28	.98	Sr
20	4.11	3.22	3.61	3.70	3.13	.27	.03	.17	So
2	3.87	3.54	3.19	2.74	3.00	.003	.05	.53	Jr
23	3.74	3.27	3.54	2.93	2.17	.02	.0004	.05	Sr
16	3.66	3.62	3.49	2.67	2.57	.02	.02	.80	Sr
26	4.26	4.24	4.36	4.16	4.74	.80	.33	.25	Jr
7	3.84	2.43	3.00	2.72	1.78	.01	.001	.04	So
33	3.90	3.57	3.59	3.21	2.57	.05	.001	.14	Sr
28	3.66	3.54	3.90	3.37	2.44	.50	.01	.05	Sr
10	3.90	3.32	3.46	2.86	2.43	.01	.001	.27	Sr
13	4.32	4.68	4.90	4.95	5.61	.14	.01	.19	Sr
25	4.16	3.65	4.15	3.91	2.83	.47	.001	.01	So

TABLE 19.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
24	3.66	2.97	2.85	2.40	1.91	.002	.001	.20	Sr
8	4.16	3.22	4.32	3.51	2.52	.13	.001	.02	So
35	4.87	5.38	4.86	4.72	4.65	.74	.65	.89	Sr
11	2.68	2.60	3.05	2.37	2.13	.40	.16	.58	Sr
18	5.18	6.24	5.09	5.77	6.04	.17	.06	.50	So
19	4.90	5.03	5.17	4.88	6.17	.98	.002	.002	Jr
27	2.79	2.22	2.20	2.23	1.78	.12	.01	.24	Jr
1	4.66	4.60	4.24	4.84	5.09	.63	.35	.57	Sr
3	3.50	2.73	3.17	2.58	2.30	.02	.003	.54	Sr
5	3.79	3.87	3.70	3.91	3.87	.72	.83	.92	So
30	3.95	4.24	4.51	4.51	5.30	.14	.001	.05	*
29	4.61	5.38	5.03	5.02	3.83	.32	.13	.01	F
34	4.47	3.05	3.66	3.44	2.70	.01	.0003	.10	So
9	5.16	5.19	5.61	5.65	4.30	.11	.06	.001	F

TABLE 19.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
31	3.03	3.11	2.63	2.44	2.00	.12	.02	.26	Sr
32	3.21	2.81	3.24	2.37	2.13	.01	.01	.47	Sr
22	3.34	3.00	2.88	2.77	2.78	.21	.30	.97	Sr
21	4.16	3.70	4.02	3.33	2.83	.05	.004	.29	Sr
17	4.37	4.43	3.97	4.30	3.30	.84	.01	.03	Jr
6	4.61	4.81	4.20	3.70	2.96	.02	.0004	.08	Sr
14	3.47	3.84	3.73	3.91	4.70	.35	.02	.15	Sr

\*Junior and Senior classes showed identical means for closeness to teachers.



TABLE 19-A.--Number of Mean Responses Closest to Teacher  
Mean Responses, by Class Level (Ovid-Elsie,  
High School, n = 177).

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Class Level				
Freshmen	Sophomore	Junior	Senior	Total
2	8	5	19	34*

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Number of Statements with Means  
Significantly Different, by t-test

---

$p \leq .05$

Fr-Sr	12
Fr-T	23
Sr-T	10

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\*See Item 30.

TABLE 20.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and Teachers (St. Johns High School, n = 205).

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
12	4.31	5.03	4.79	4.55	4.06	.43	.43	.13	Fr
15	3.65	3.69	3.79	3.78	3.50	.64	.59	.33	Fr
4	4.39	4.79	5.15	5.03	4.84	.02	.13	.49	So
20	3.63	3.45	3.81	3.62	3.37	.97	.25	.33	So
2	3.44	3.48	3.52	3.53	3.40	.79	.90	.71	Fr
23	3.26	3.31	3.65	3.03	2.27	.37	.001	.004	Sr
16	3.63	3.41	3.12	3.35	2.81	.33	.003	.06	Jr
26	4.26	4.48	3.96	4.38	4.52	.69	.39	.69	So
7	2.91	2.03	2.77	2.39	1.92	.06	.001	.09	So
33	3.70	3.03	3.54	3.16	2.77	.03	.001	.16	So
28	3.85	3.03	3.15	2.84	2.52	.001	.001	.24	Sr
10	3.35	3.38	3.69	3.49	3.02	.68	.23	.14	Fr
13	4.57	5.07	4.40	5.03	4.93	.13	.25	.76	Sr
25	4.15	4.28	4.06	3.68	3.50	.06	.02	.50	Sr

TABLE 20.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
24	2.85	2.76	3.58	2.57	2.55	.26	.25	.94	Sr
8	3.37	3.72	3.85	3.65	2.60	.36	.01	.001	Fr
35	4.52	4.86	4.23	4.58	4.43	.84	.79	.65	Fr
11	3.31	2.76	2.98	3.11	2.39	.48	.001	.01	So
18	5.13	5.83	5.67	5.80	6.13	.02	.001	.16	So
19	4.37	5.69	4.77	5.26	5.39	.002	.001	.64	Sr
27	2.93	2.31	2.52	2.12	1.87	.002	.001	.28	Sr
1	4.43	4.79	5.31	5.05	4.35	.03	.83	.03	Fr
3	2.96	2.45	2.98	2.96	2.74	.99	.45	.43	Sr
5	3.41	3.55	3.75	3.99	4.00	.03	.02	.96	Sr
30	4.31	4.72	4.44	4.84	4.92	.05	.01	.76	Sr
29	4.33	4.79	4.83	4.70	3.32	.22	.001	.001	Fr
34	3.59	3.03	3.44	3.30	2.43	.30	.001	.003	So
9	4.80	5.03	5.25	5.49	4.61	.01	.55	.004	Fr

TABLE 20.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
31	3.04	3.14	3.12	2.92	2.82	.70	.51	.77	Sr
32	3.33	2.97	3.29	2.95	2.52	.10	.001	.09	Sr
22	3.70	3.14	3.40	2.86	2.71	.004	.001	.60	Sr
21	4.06	3.72	3.83	3.65	2.77	.16	.001	.004	Sr
17	4.07	4.07	4.12	3.99	3.47	.75	.04	.09	Sr
6	4.31	4.10	4.08	3.97	2.95	.26	.001	.001	Sr
14	4.09	4.17	4.27	3.76	3.95	.28	.65	.55	Fr

TABLE 20-A.--Number of Student Mean Responses Closest to  
Teacher Mean Responses, by Class Level  
(St. Johns High School, n = 205).

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Class Level				
Freshmen	Sophomore	Junior	Senior	Total
11	8	1	15	35

Number of Statements with Means  
Significantly Different, by t-test

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$p \leq .05$

Fr-Sr	11
Fr-T	20
Sr-T	9

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TABLE 21.--Comparisons of Mean Responses to 35 Mental Health Opinion Items for Students and Teachers (Williamston High School, n = 225).

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
12	5.20	4.25	4.52	4.18	3.96	.003	.62	.01	Sr
15	4.53	3.75	3.38	3.68	3.26	.01	.32	.01	Jr
4	4.56	4.91	4.80	4.73	5.22	.57	.14	.21	So
20	3.71	3.41	3.37	3.73	3.39	.94	.26	.42	Jr
2	3.60	3.69	2.93	3.18	3.00	.22	.20	.66	Jr
23	3.78	3.15	2.22	2.83	2.44	.005	.01	.31	Jr
16	3.69	2.74	2.88	3.25	2.56	.17	.01	.19	So
26	3.91	4.74	4.60	4.50	5.56	.11	.02	.001	So
7	3.33	2.71	2.28	2.17	1.87	.001	.002	.42	Sr
33	3.51	2.98	2.63	3.27	2.17	.42	.002	.003	Jr
28	3.38	3.37	3.05	3.40	1.96	.94	.001	.001	Jr
10	3.76	3.25	3.23	3.25	2.74	.07	.01	.16	Jr
13	4.89	4.80	4.87	4.53	5.39	.34	.24	.07	Fr
25	4.62	4.09	3.37	3.92	2.30	.004	.001	.001	Jr

TABLE 21.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
24	3.47	2.94	2.57	2.43	2.52	.001	.03	.80	Jr
8	3.82	3.61	3.07	3.08	2.74	.04	.02	.42	Jr
35	4.36	4.66	4.55	5.17	4.65	.01	.52	.23	So
11	3.34	2.68	2.78	2.63	2.43	.01	.01	.60	Sr
18	5.31	5.35	5.83	5.88	6.30	.07	.01	.21	Sr
19	4.60	4.60	4.77	4.95	5.91	.28	.001	.01	Sr
27	3.22	2.45	1.85	2.05	1.65	.001	.001	.17	Jr
1	5.02	4.41	4.42	4.75	3.96	.41	.02	.07	So
3	3.51	3.28	2.93	3.00	1.90	.08	.001	.001	Jr
5	3.64	3.75	3.65	3.45	4.04	.49	.29	.05	So
30	4.02	4.74	4.65	4.82	5.61	.02	.001	.04	Sr
29	4.78	4.49	4.67	4.58	2.74	.58	.001	.001	So
34	4.27	3.60	3.08	3.67	2.65	.08	.001	.01	Jr
9	5.29	5.37	5.28	5.35	4.35	.84	.04	.01	Jr

TABLE 21.--Continued.

Item No.	Fr	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
						Fr-Sr	Fr-T	Sr-T	
31	3.38	2.97	3.02	3.03	2.30	.37	.03	.10	So
32	2.82	3.11	2.57	3.27	2.00	.17	.04	.002	Jr
22	4.02	3.43	2.87	3.23	2.17	.03	.001	.01	Jr
21	4.00	3.81	2.93	3.18	2.26	.01	.001	.01	Jr
17	4.36	4.17	3.93	4.03	2.83	.21	.001	.002	Jr
6	4.76	3.95	3.47	4.12	3.13	.07	.001	.02	Jr
14	4.13	4.63	4.22	3.75	4.13	.32	.99	.44	Fr



TABLE 21-A.--Number of Mean Responses Closest to Teacher  
Mean Responses, by Class Level (Williamston  
High School, n = 225).

---

Class Level				
Freshmen	Sophomore	Junior	Senior	Total
2	8	19	6	35

---

Number of Statements with Means  
Significantly Different, by t-test

---

$p \leq .05$

Fr-Sr	13
Fr-T	26
Sr-T	18

---

TABLE 22.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and Teachers (Grand Rapids Christian High School, n = 160).

No.	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
					So-Sr	So-T	Sr-T	
12	5.02	4.83	4.74	4.38	.38	.05	.33	Sr
15	3.91	3.70	3.19	3.08	.04	.02	.73	Sr
4	4.52	5.10	4.66	4.79	.71	.44	.68	Sr
20	2.93	3.70	3.57	3.59	.13	.19	.96	Sr
2	2.93	2.97	3.34	2.44	.18	.10	.003	So
23	2.98	2.85	3.00	1.96	.93	.001	.001	Jr
16	2.98	3.10	3.13	2.44	.64	.12	.04	So
26	2.25	4.52	4.64	4.69	.24	.31	.90	Sr
7	2.45	2.78	2.43	1.95	.93	.14	.13	Sr
33	3.14	2.93	3.04	2.31	.76	.01	.01	Jr
28	3.66	3.61	3.13	2.36	.10	.001	.01	Sr
10	3.59	2.88	2.83	3.08	.01	.17	.46	Jr
13	4.77	5.06	5.30	5.74	.06	.003	.13	Sr
25	3.48	3.78	3.36	2.56	.69	.01	.01	Sr

TABLE 22.--Continued.

Item No.	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
					So-Sr	So-T	Sr-T	
24	2.95	2.72	2.49	2.46	.37	.38	.92	Sr
8	3.54	3.32	3.21	2.51	.32	.01	.06	Sr
35	4.77	4.71	4.45	5.28	.85	.36	.04	So
11	2.52	2.91	2.72	1.72	.49	.01	.001	So
18	5.82	5.78	6.04	6.49	.40	.005	.05	Sr
19	4.82	4.78	5.45	5.38	.04	.09	.83	Sr
27	2.32	2.30	1.89	1.67	.11	.02	.30	Sr
1	4.70	4.90	4.17	4.28	.13	.28	.78	Sr
3	3.02	2.81	2.60	2.82	.16	.52	.49	Jr
5	3.41	3.64	4.04	4.31	.04	.01	.39	Sr
30	4.82	4.59	4.66	5.46	.57	.07	.03	So
29	5.23	4.74	5.06	3.77	.58	.001	.001	Jr
34	3.41	3.45	2.78	2.31	.89	.69	.003	Sr
9	5.04	5.09	5.34	4.41	.33	.06	.01	So

TABLE 22.--Continued.

Item No.	So	Jr	Sr	T	p value t-test			Class Closest to Teachers
					So-Sr	So-T	Sr-T	
31	3.14	2.78	2.72	2.49	.24	.08	.50	Sr
32	2.89	2.91	3.04	2.41	.57	.10	.02	So
22	3.29	3.33	2.68	1.74	.09	.001	.002	Sr
21	3.39	3.72	3.13	2.36	.05	.001	.01	Sr
17	4.00	4.29	3.60	3.13	.20	.01	.15	Sr
6	4.29	3.65	4.11	2.64	.60	.001	.001	Jr
14	4.32	4.03	4.51	3.85	.62	.25	.10	Jr

TABLE 22-A.--Number of Mean Responses Closest to Teacher  
Mean Responses, by Class Level (Grand Rapids  
Christian High School, n = 160).

---

Class Level			
Sophomore	Junior	Senior	Total
7	7	21	35

Number of Statements with Means  
Significantly Different, by t-test

---

$p \leq .05$

So-Sr	5
So-T	17
Sr-T	17

---

TABLE 23.--Summary: Number of Mental Health Opinion Statement Means Closest to Teacher Means, by School and Class Level.

School	Freshmen	Sophomore	Junior	Senior	Total
Fowler	7	1	7	19	34
Ovid-Elsie	2	8	5	20	35
St. Johns	11	8	1	15	35
Williamston	2	8	19	6	35
Grand Rapids	--*	7	7	21	35
Total	22	32	39	81	275
Class $\bar{X}$	5.5	6.4	7.8	16.2	

\*Grand Rapids Christian is a 3-year high school (grades 10-12).

Table 23 shows a summary of results from Tables 18-22. Table 23 shows that a greater number of mean responses of seniors to the 35 opinion statements are closer to teacher mean responses than the means of other grades for all five schools except one. Results show that the mean responses of juniors for Williamston are more similar to teacher responses than the mean responses of other grades. However, an average for each class across schools explicitly reveals that there is a steady increase from the freshmen to the senior class: Freshmen, 5.5; Sophomore, 6.4; Junior 7.8; Senior, 16.2. The data demonstrate that 22 freshmen mean responses were more similar to their teachers, 32 sophomore mean responses, 39 junior mean responses and 81 senior mean responses.

Hypothesis 1A is supported by the data (Tables 18-23). Data do not support hypothesis 1, however, when school classes for each school are pooled the expected trend is supported.

Table 24 gives a summary of the number of statements with means significantly different by t-test. Table 24 also shows means tested for freshmen-teachers and senior-teachers. In each case there are fewer significantly different statements for senior/teachers than for freshmen/teachers except for Grand Rapids, where the significantly different statement means are equal. However, the total number of significantly different means clearly demonstrates that responses of seniors are more similar to teacher responses than those of freshmen.

In addition to presentations 18-23, Table 24 shows a second somewhat different way of testing hypotheses 1 and 1A; both support hypothesis 1A.

TABLE 24.--Summary: Number of Statements with Means Significantly Different with  $p \leq .05$ , by t-test.

Schools	Freshmen/Teachers	Senior/Teachers
Fowler	18	11
Ovid-Elsie	23	10
St. Johns	20	9
Williamston	26	18
Grand Rapids	17	17
Total	104	65

Part II-B: Relationship Between Students  
and "Grand Rapids Citizens"

Hypothesis 2: As grade levels increase the mental health opinions of high school students will become increasingly similar to those of the "Grand Rapids Citizens."

2A: The opinions of high school seniors will be more similar to those of the "Grand Rapids Citizens" than the opinions of other class levels.

TABLE 25.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and the "Grand Rapids Citizens" (Fowler High School, n = 215).

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
12	4.00	Sr
15	3.73	Jr
4	5.37	Fr
20	3.32	Jr
2	3.31	Jr
23	2.32	Sr
16	2.65	Sr
26	4.35	So
7	2.48	Jr.
33	2.41	Sr
28	2.91	Sr
10	3.62	Fr
13	5.13	Sr
25	3.30	So
24	2.68	Sr



TABLE 25.--Continued.

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
8	3.10	Sr
35	4.69	Jr
11	2.08	Fr
18	6.15	Sr
19	5.31	Sr
27	1.73	Sr
1	4.66	Jr
3	2.28	Sr
5	3.80	So
30	5.14	Jr
29	3.62	Sr
34	2.82	Sr
9	4.52	Fr
31	2.89	Jr
32	2.35	Sr
22	2.75	Sr
21	3.07	Sr
17	4.06	Sr
6	3.20	Sr
14	4.11	So

TABLE 26.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and the "Grand Rapids Citizens" (Ovid-Elsie High School, n = 177).

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
12	4.00	Fr
15	3.73	Jr
4	5.37	Fr
20	3.32	So
2	3.31	Jr
23	2.32	Sr
16	2.65	Sr
26	4.35	Jr
7	2.48	So
33	2.41	Sr
28	2.91	Sr
10	3.62	Jr
13	5.13	Sr
25	3.30	So
24	2.68	Jr
8	3.10	So
35	4.69	Sr
11	2.08	Sr
18	6.15	So
19	5.31	Jr
27	1.73	Jr
1	4.66	Fr

TABLE 26.--Continued.

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
3	2.28	Sr
5	3.80	Fr
30	5.14	Sr
29	3.62	Fr
34	2.82	So
9	4.52	Fr
31	2.89	Fr
32	2.35	Sr
22	2.75	Sr
21	3.07	Sr
17	4.06	Jr
6	3.20	Sr
14	4.11	Sr

TABLE 27.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and the "Grand Rapids Citizens" (St. Johns High School, n = 205).

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
12	4.00	Fr
15	3.73	So
4	5.37	Jr
20	3.32	So
2	3.31	Fr
23	2.32	Sr
16	2.65	Jr
26	4.35	Fr
7	2.48	Sr
33	2.41	Jr
28	2.91	Sr
10	3.62	Jr
13	5.13	So
25	3.30	Sr
24	2.68	So
8	3.10	Fr
35	4.69	Sr
11	2.08	So
18	6.15	So
19	5.31	So
27	1.73	Sr
1	4.66	So
3	2.28	So

TABLE 27.--Continued.

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
5	3.80	Jr
30	5.14	Sr
29	3.62	Fr
34	2.82	So
9	4.52	Fr
31	2.89	Sr
32	2.35	Sr
22	2.75	Sr
21	3.07	Sr
17	4.06	So
6	3.20	Sr
14	4.11	Fr

TABLE 28.--Comparison of Mean Responses for 35 Mental Health Opinion Items for Students and the "Grand Rapids Citizens" (Williamston High School, n = 225).

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
12	4.55	Jr
15	3.73	So
4	5.37	So
20	3.32	So
2	3.31	Sr
23	2.32	Jr
16	2.65	So
26	4.35	Sr
7	2.48	Jr
33	2.41	Jr
28	2.91	Jr
10	3.62	Fr
13	5.13	Fr
25	3.30	Jr
24	2.68	Jr
8	3.10	Sr
35	4.69	Sr
11	2.08	Sr
18	6.15	Sr
19	5.31	Sr
27	1.73	Jr
1	4.66	Sr

TABLE 28.--Continued.

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
3	2.28	Jr
5	3.80	So
30	5.14	Sr
29	3.62	So
34	2.82	Jr
9	4.52	Jr
31	2.89	So
32	2.35	Jr
22	2.75	Jr
21	3.07	Sr
17	4.06	Sr
6	3.20	Jr
14	4.11	Sr

TABLE 29.--Comparison of Mean Responses to 35 Mental Health Opinion Items for Students and the "Grand Rapids Citizens" (Grand Rapids Christian High School, n = 160).

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
12	4.55	Sr
15	3.73	Jr
4	5.37	Jr
20	3.32	So
2	3.31	Sr
23	2.32	Jr
16	2.65	Jr
26	4.35	Jr
7	2.48	So
33	2.41	Jr
28	2.91	Sr
10	3.62	So
13	5.13	Jr
25	3.30	Sr
24	2.68	Sr
8	3.10	Sr
35	4.69	Jr
11	2.08	So
18	6.15	Sr
19	5.31	Sr
27	1.73	Sr
1	4.66	So



TABLE 29.--Continued.

Item No.	"Grand Rapids Citizens"	Class Closest to "Grand Rapids Citizens"
3	2.28	Sr
5	3.80	Jr
30	5.14	So
29	3.62	Jr
34	2.82	Sr
9	4.52	So
31	2.89	Jr
32	2.35	So
22	2.75	Sr
21	3.07	Sr
17	4.06	So
6	3.20	Jr
14	4.11	Jr

Since the correlations of means on the opinion statements between the "Grand Rapids Citizens" and each of the sets of teachers ranged from .93 to .97, t-tests between student means and the "Grand Rapids Citizens" means were not conducted because they would be largely redundant.

Table 30 shows the number of mean responses of opinion statements closest to the mean responses of the "Grand Rapids Citizens." Data show that hypothesis 2A is supported, thus, confirming the notion that the mean responses of seniors are more similar to the "general public" than other class levels. Results reveal that a total of 71 mean responses of seniors were closest to those of the "general public," whereas, 20 of the freshmen mean responses were closest. Sophomores and juniors were between the two extremes with 37 and 47, respectively.

The class average demonstrates an increasing similarity of student mean responses to those of the "Grand Rapids Citizens." The class means across schools for each grade are: 5.0, 7.4, 8.4, and 14.2 for freshmen, sophomores, juniors and seniors respectively. As indicated, there is a steady increase from the freshmen to senior level.

Hypothesis 2A is supported by results from presentations 25-29. Hypothesis 2 is not supported, however, when school classes for each class are pooled the expected trend is supported.

TABLE 30.--Number of Mental Health Statement Means Closest to the Mean Responses of the "Grand Rapids Citizens," by Class Level and School.

School	Freshmen	Sophomore	Junior	Senior	Total
Fowler	4	4	7	20	35
Ovid-Elsie	7	6	8	14	35
St. Johns	7	11	5	12	35
Williamston	2	7	14	12	35
Grand Rapids	--	9	13	13	35
Total	20	37	47	71	175
Class $\bar{X}$	5.0	7.4	8.4	14.2	

### Part III

#### Relationship Between Knowledgeability and Social Variables

Hypothesis 3: As grade levels increase (9-12) there will be an increase in mental health knowledge of high school students.

3A: Seniors will have a higher knowledgeability score than other class levels.

Data relevant to hypotheses 3 and 3A are presented in Tables 31 and 32. Table 31 shows the relationship between knowledgeability and year in school. Table 32 presents probability values for t-tests of differences between means for each class in each school.

TABLE 31.--Relationship Between Knowledgeability and Year in School.

Schools	Freshmen	Sophomore	Junior	Senior	School $\bar{X}$	Unweighted $\bar{X}$
Fowler						
$\bar{X}$	67.40	64.37	67.85	73.02	67.92	68.16
N	53	57	55	46	211	
Ovid-Elsie						
$\bar{X}$	62.37	69.05	64.97	71.02	66.74	66.85
N	38	37	58	43	176	
St. Johns						
$\bar{X}$	66.93	71.48	66.87	70.90	68.98	69.04
N	54	29	48	73	204	
Williamston						
$\bar{X}$	62.02	70.32	73.70	72.05	70.01	69.52
N	45	65	60	58	228	
Grand Rapids						
$\bar{X}$	--	70.19	71.42	75.36	72.27	72.32
N	--	42	69	47	158	
Class						
$\bar{X}$	64.98	68.76	69.14	72.32		
N	190	230	290	267		
n = 977						

TABLE 31.--Probability Value, t-tests of Differences Between Means for Each Class in Each School.

School	Freshmen- Sophomore	Freshmen- Junior	Freshmen- Senior	Sophomore- Junior	Sophomore- Senior	Junior- Senior
Fowler p <	*.05	.40	.005	.03	.001	.01
Ovid-Elsie p <	.004	.12	.001	*.04	.23	.01
St. Johns p <	.01	*.49	.02	*.01	*.41	.03
Williamston p <	.001	.001	.001	.02	.16	*.15
Grand Rapids p <	--	--	--	.28	.01	.02

\*Direction of difference not as hypothesized.

Results show that hypothesis 3A is supported by the data from three schools, however, when seniors are compared to freshmen, the hypothesis is supported by all five schools. The class mean further supports the hypothesis that seniors are higher on knowledgeability than other class levels. Data do not support the notion of a regular increase in knowledgeability score with grade levels (9-12). However, data support the hypothesis that seniors are higher in knowledgeability in each case than freshmen. For Fowler, freshmen have a knowledgeability mean of 67 and seniors have a mean of 73; Ovid-Elsie freshmen have a score of 62 and seniors have a score of 71; St. Johns freshmen have a score of 67, whereas, seniors are 71; Williamston freshmen are 62 and seniors are 72.

Hypothesis 3A is supported by the data. Although hypothesis 3 is not clearly supported in 21 out of 27 pairs of comparisons, the direction was as expected. The hypothesis is not altogether supported nor altogether repudiated. This is an area which suggests further investigation.

Hypothesis 4: Males and females will not differ on the knowledgeability score.

Data relevant to hypothesis 4 are presented in Table 33 which shows the relationship between knowledgeability and sex.

TABLE 33.--The Relationship Between Knowledgeability and Sex.

School	Male	Female	Probability
Fowler			
$\bar{X}$	65.69	69.87	p < .004
N	95	109	
Ovid-Elsie			
$\bar{X}$	64.39	68.97	p < .01
N	77	92	
St. Johns			
$\bar{X}$	65.58	71.95	p < .001
N	95	109	
Williamston			
$\bar{X}$	68.31	71.84	p < .004
N	115	107	
Grand Rapids			
$\bar{X}$	70.68	73.79	p < .05
N	73	84	
Total			
$\bar{X}$	66.93	71.28	69.10
N	455	501	956

Table 33 shows that females are higher on knowledgeability for each school. Females show an average of 71 and males show an average of 67.

Hypothesis 4 is not supported by the data.

Hypothesis 5: Grade Point Average will be positively related to knowledgeability.

Data relevant to hypothesis 5 are presented in Table 34. The above data support hypothesis 5 for all schools except for Grand Rapids, where the results are significantly contrary. As indicated, students with GPA

of B+ and above have higher knowledgeability scores than students with GPA of B and below.

Hypothesis 5 is supported.

TABLE 34.--Relationship Between Knowledgeability and Grade Point Average (GPA).

School	B+ and Above	B and Below	Probability
Fowler			
$\bar{X}$	71.41	66.02	p < .001
N	76	131	
Ovid-Elsie			
$\bar{X}$	70.07	66.31	p < .05
N	30	131	
St. Johns			
$\bar{X}$	74.75	69.35	p < .001
N	48	152	
Williamston			
$\bar{X}$	74.09	69.31	p < .001
N	86	129	
Grand Rapids			
$\bar{X}$	71.51	77.28	*p < .004
N	35	115	
Total			
$\bar{X}$	72.37	69.65	71.01
N	275	658	933

\*Direction of difference not as hypothesized.



Hypothesis 6: Students who indicate definite plans for attending college will score higher on knowledgeability.

Data relevant to hypothesis 6 are presented in Table 35. Results show that students indicating plans for attending college are higher on the knowledgeability score than students who reported having no plans for attending college.

Hypothesis 6 is supported by the data. Results support the claim that college bound students are more knowledgeable about mental health concepts than non-college bound students. The relationship holds between knowledgeability and college plans, although notions of college plans vary considerably from school to school.

Hypothesis 7: There will be a positive relationship between knowledgeability and father's education.

Hypothesis 8: There will be a positive relationship between knowledgeability and mother's education.

Data pertaining to hypotheses 7 and 8 are presented in Tables 36-39. Results show that knowledgeability is not related to parental education. Socio-structural variables do not have very much influence on the mental health knowledge of the offspring as revealed by these data.

Hypotheses 7 and 8 are not supported by these data.

TABLE 35.--Relationship Between Knowledgeability and College Plans.

College Plans						
	Definitely Yes	Definitely No	p-value	Def. Yes/ Prob. Yes	Def. No/ Prob. No	p-value
Fowler						
$\bar{X}$	75.31	66.93	p < .004	69.27	66.38	p < .023
N	26	25		113	98	
Ovid-Elsie						
$\bar{X}$	72.34	60.62	p < .001	69.72	63.35	p < .001
N	38	26		94	79	
St. Johns						
$\bar{X}$	71.93	66.67	p < .01	70.05	66.09	p < .01
N	68	12		149	55	
Williamston						
$\bar{X}$	74.23	67.08	p < .01	70.99	66.70	p < .004
N	98	12		170	51	
Grand Rapids						
$\bar{X}$	73.83	66.70	p < .02	73.47	66.93	p < .001
N	75	10		130	27	

TABLE 36.--Relationship Between Knowledgeability and Education of Father.

School	Level of Education		
	Not H.S. Grad.	H.S. Grad	Beyond H.S.
Fowler			
$\bar{X}$	69.12	66.57	67.08
N	107	130	18
Ovid-Elsie			
$\bar{X}$	66.31	66.23	68.61
N	62	104	26
St. Johns			
$\bar{X}$	67.11	70.26	69.71
N	65	123	42
Williamston			
$\bar{X}$	69.14	67.92	71.17
N	42	102	83
Grand Rapids			
$\bar{X}$	69.04	73.91	72.48
N	24	74	71

TABLE 37.--Probability Value, t-tests of Differences Between Means for Each Class in Each School.

School	Father--Level of Education		
	A-B	A-C	B-C
Fowler			
p <	*.05	*.20	.41
Ovid-Elsie			
p <	*.48	.18	.15
St. Johns			
p <	.03	.10	*.38
Williamston			
p <	*.27	.13	.02
Grand Rapids			
p <	.04	.08	*.22

\*Direction of difference not as hypothesized.

TABLE 38.--Relationship Between Knowledgeability and Education of Mother.

School	Level of Education		
	Not H.S. Grad.	H.S. Grad.	Beyond H.S.
Fowler			
$\bar{X}$	68.89	67.25	69.39
N	63	130	18
Ovid-Elsie			
$\bar{X}$	65.17	67.87	65.38
N	43	104	26
St. Johns			
$\bar{X}$	67.78	68.37	71.55
N	37	123	42
Williamston			
$\bar{X}$	68.11	70.56	70.40
N	36	102	83
Grand Rapids			
$\bar{X}$	72.00	71.57	73.21
N	12	74	71

TABLE 39.--Probability Value, t-tests of Differences Between Means for Each Class in Each School.

School	Mother--Level of Education		
	A-B	A-C	B-C
Fowler			
p <	*.15	.43	.21
Ovid-Elsie			
p <	.10	.47	*.17
St. Johns			
p <	.33	.06	.05
Williamston			
p <	.10	.12	*.46
Grand Rapids			
p <	*.45	.35	.06

\*Direction of difference not as hypothesized.

Hypothesis 9: Students whose fathers are employed in upper white collar professions will score higher on knowledgeability than students whose fathers are employed in upper blue collar professions and below.

Findings relative to hypothesis 9 are presented in Tables 40 and 41. Table 40 shows a tendency for students whose parents are employed in "upper white collar" professions to have a higher K-score than students whose parents are employed in occupations categorized as "lower white collar" and below. The relationship between other occupational levels and knowledgeability show only weak relationships. Results suggest that ordering of occupational categories in relation to knowledgeability are more applicable to other communities than to the Grand Rapids community.

Hypothesis 9 is not supported by the data. However, there is a trend for students of fathers employed in white collar occupations to have a higher knowledgeability score.

Hypothesis 10: Respondents who have experienced the mental disorder (institutionalization or treatment) of a friend will score higher on knowledgeability.

Hypothesis 11: Respondents who have experienced the mental disorder (institutionalization or treatment) of a family member will score higher on knowledgeability.

Hypothesis 12: Respondents who have visited a mental disorder unit will score higher on knowledgeability.

TABLE 40.--Relationship Between Knowledgeability and Occupation of Father.

School	Occupation			
	Upper White Collar	Upper Blue Collar	LWC/MBC	Farmer/LBC
Fowler $\bar{X}$ N n = 203	69.68 19	67.20 25	67.25 99	67.55 60
Ovid-Elsie $\bar{X}$ N n = 165	69.68 22	64.25 20	67.63 90	64.76 33
St. Johns $\bar{X}$ N n = 188	69.76 37	69.90 29	69.24 105	68.18 11
Williamston $\bar{X}$ N n = 209	71.19 96	66.81 37	69.42 65	70.91 11
Grand Rapids $\bar{X}$ N n = 152	71.90 80	77.39 28	69.74 38	74.33 6
Total $\bar{X}$ N n = 917	70.96 254	69.29 139	68.46 397	67.52 127

TABLE 41.--Probability Value, t-tests of Differences Between Means for Each Class in Each School.

School	Father's Occupation					
	UWC-UBC	UWC-LWC/MBC	UWC-F/LBC	LBC-LWC/MBC	UBC-F/LBC	LWC/MBC-F/LBC
Fowler p <	.22	.17	.25	*.49	*.45	*.43
Ovid-Elsie p <	.05	.22	.10	*.10	*.44	.12
St. Johns p <	*.48	.40	.31	.38	.30	.34
Williamston p <	.01	.14	.46	*.10	*.12	*.32
Grand Rapids p <	*.01	.15	*.29	.001	.20	.16

\*Direction of difference not as hypothesized.

Results pertaining to hypotheses 10, 11, and 12 are presented in Table 42. Table 42 shows a trend for respondents with mental health experience to be more knowledgeable about mental health concepts.

The knowledgeability score for the friends index is higher for all schools except St. Johns. The relationship between knowledgeability and the family index is clear for all five schools, however, the relationship is not very strong. The combined index (friends, family, visitation) also reveals a relationship between experience and knowledgeability, again, the relationship is not very strong.

Hypotheses 10, 11, and 12 are supported by the results.

Hypothesis 13: The knowledgeability score for high school teachers will be higher than the knowledgeability score for high school students.

Results presented in Table 43 are relevant to hypothesis 13. Table 43 shows that teachers have a higher knowledgeability score for all schools.

Hypothesis 13 is supported.



TABLE 42.--Relationship Between Knowledgeability and Mental Health Experience.

Mental Health Experience									
School	Friends			Family			Combined (Family, Friends, Visits)		
	No	Yes	p-value	No	Yes	p-value	No	Yes	p-value
Fowler									
$\bar{X}$	67.53	70.63	p < .08	67.60	69.59	p < .15	67.15	69.88	p < .04
N	184	27		177	34		151	60	
Ovid-Elsie									
$\bar{X}$	66.37	67.75	p < .24	65.42	70.48	p < .01	65.91	67.56	p < .17
N	128	48		130	46		87	89	
St. Johns									
$\bar{X}$	69.15	68.55	p < .35	68.49	70.77	p < .10	67.93	70.14	p < .06
N	149	55		160	44		107	97	
Williamston									
$\bar{X}$	69.69	71.26	p < .18	69.38	71.64	p < .07	68.69	71.09	p < .04
N	181	47		164	64		102	126	
Grand Rapids									
$\bar{X}$	71.18	74.14	p < .04	71.27	74.54	p < .03	69.48	73.63	p < .01
N	100	58		110	48		52	106	

TABLE 43.--Relationship Between Students and Teachers on Knowledgeability.

School	Students	Teachers	Probability
Fowler $\bar{X}$ N	67.92	86.29	$p < .001$
Ovid-Elsie $\bar{X}$ N	66.74	80.71	$p < .001$
St. Johns $\bar{X}$ N	68.98	77.73	$p < .001$
Williamston $\bar{X}$ N	70.01	83.30	$p < .001$
Grand Rapids $\bar{X}$	72.27	81.95	$p < .001$

TABLE 44.--Summary of Results; Relationship Between Knowledgeability Score and Social Variables.

Variables	Hypotheses	Trend	Conclusion
Grade level and similarity of responses to teachers	As grade levels increase mental health opinions of students will become increasingly similar to those of their teachers	As Expected	Hypothesis not supported in its entirety
Grade level and similarity of responses to teachers	Senior responses will be more similar to those of their teachers than other class levels	As Expected	Hypothesis Supported
Grade level and similarity of responses to the "General Public"	As grade levels increase mental health opinions of students will become increasingly similar to those of the "General Public"	As Expected	Hypothesis not supported in its entirety
Grade level and similarity of responses to the "General Public"	Senior responses will more similar to those of the "General Public" than other class levels	As Expected	Hypothesis Supported
Grade Level	As grade levels increase there will be an increase on K-score	As Expected	Hypothesis not supported in its entirety

TABLE 44.--Continued.

Variables	Hypotheses	Trend	Conclusion
Grade Level	Seniors higher on K-score	As Expected	Hypothesis Supported
Sex	No relationship	Females Higher	Data contrary to hypothesis
Grade Point Average	Higher the GPA, higher the K-score	As Expected	Hypothesis Supported
College Plans	College bound will be higher on K-score	As Expected	Hypothesis Supported
Parental Education: Father	Higher education, higher the K-score	None indicated	Data contrary to hypothesis
Mother	Higher education, higher the K-score	None indicated	Data contrary to hypothesis
Father's Occupation	Upper white collar, higher on K-score	As Expected	Hypothesis not supported in its entirety
Mental Health Experience: Friends?	Experience--higher on K-score	As Expected	Hypothesis Supported

TABLE 44.--Continued.

Variables	Hypotheses	Trend	Conclusion
Family?	Experience--higher on K-score	As Expected	Hypothesis Supported
Combined: Friends, Family, Visits	Experience higher on K-score	As Expected	Hypothesis Supported
Students vs. Teachers	Teachers higher on K-score	As Expected	Hypothesis Supported

Recent Results from a Related Study

During the analysis stage of this investigation, an article was published by J. Marshall Townsend which utilized the same mental health opinion statements as those used in the present research. On our request, Professor Townsend sent data showing the mean responses to 30 of the 35 mental health statements used in this study (Appendix G). Correlations between means for the Townsend sample (Seattle, Washington High School Students,  $n = 728$ ) and the present study was .96, which suggests that our data have relevance beyond the Michigan area. Mean responses indicate that belief patterns are widespread and, perhaps, opinions about mental disorder are about the same throughout the country.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

The present study is concerned with an exploration of mental health opinions among high school students. A review of the literature suggests that very little research has been done toward answering the question of how mental health opinions develop. Research literature suggests that the school years are very critical in the shaping of opinions and attitudes. A wide range of attitudes and opinions are developed during this period. The writer contends that mental health opinions are formed along with all such attitudes and opinions concerning social phenomena.

The sample for the investigation consisted of 989 high school students from five high schools in Michigan. Fowler High School, Ovid-Elsie High School, St. Johns High School, Williamston High School, and Grand Rapids Christian High School.

The primary focus of the study was to determine how knowledgeable high school students are about mental health and if "knowledgeability" is related to certain sociological variables.





The primary dependent variables are: (1) a measure of similarity to the "general public," (2) a measure of similarity to high school teachers, and (3) a "knowledgeability" score reflecting similarity of responses to professionals. The major independent variables are: year in school (grades 9-12), sex, college plans, parental education, father's occupation, experience with mental illness (friends, family, visits to mental disorder units), and grade point average (GPA).

The above dependent and independent variables were used to determine the relationship for the following hypotheses:

Hypothesis 1: As grade levels increase the mental health opinions of high school students will become increasingly similar to those of their teachers.

1A: The mental health opinions of high school seniors will be more similar to the opinions of their teachers than the opinions of other class levels.

Data support hypothesis 1A but not hypothesis 1. Results from each school do not show a steady increase in the similarity of mental health notions to their teachers with an increase in grade levels. However, when grade levels are pooled, as grade levels increase (freshmen to senior) there is also an increase in similarity of student mean responses to teacher mean responses.

During the process of assessing the evidence regarding hypothesis 1, it became apparent that this is a

"tough" or hard-to-confirm hypothesis, since it specifies the precise order of similarity to teachers of each class in each school. Hypotheses 2 and 3 are also "tough," and failure to confirm these hypotheses does not mean that there is no relationship between class level and the respective dependent variable.

Hypothesis 2: As grade levels increase the mental health opinions of high school students will become increasingly similar to those of the "Grand Rapids Citizens."

2A: The opinions of seniors will be more similar to the opinions of the "Grand Rapids Citizens" than the opinions of other class levels.

Hypothesis 2A is supported. Results do not support hypothesis 2. Results for individual schools do not show a steady increase in the similarity of mental health opinions to those of the "Grand Rapids Citizens" with an increase in grade levels. However, when grade levels for all schools are pooled, there is an increase in similarity of student mean responses to "adult" mean responses as grade levels increase.

Hypothesis 3: As grade levels increase (9-12) there will be an increase in mental health knowledge of high school students.

3A: Seniors will have a higher knowledge-ability score than other class levels.

Data support hypothesis 3A but not hypothesis 3. Results from individual schools do not show an increase

in mental health knowledge as grade levels increase. When grade levels for all schools are combined results show a steady increase in knowledgeability from freshmen to senior class.

Hypothesis 4: Males and females will not differ on knowledgeability.

Hypothesis 4 was rejected. Results revealed that females were higher on knowledgeability.

Hypothesis 5: Grade point average will be positively related to knowledgeability.

Hypothesis 5 was supported by the data.

Hypothesis 6: Students who indicate definite plans for attending college will score higher on knowledgeability.

Results confirmed hypothesis 6.

Hypothesis 7: There will be a positive relationship between knowledgeability and father's education.

Hypothesis 8: There will be a positive relationship between knowledgeability and mother's education.

Results indicated that parental education is not related to the K-score. Hypotheses 7 and 8 are rejected.

Hypothesis 9: Students whose fathers are employed in upper white collar professions will score higher on knowledgeability than students whose fathers are employed in upper blue collar professions and below.

Hypothesis 9 was not viewed as being supported by the data, although in three of five cases, the upper white collar fathers had the highest K-score means. In the other two cases the upper blue collar fathers had the highest means.

Hypothesis 10: Respondents who have experienced the mental disorder (institutionalization or treatment) of a friend will score higher on knowledgeability.

Hypothesis 11: Respondents who have experienced the mental disorder (institutionalization or treatment) of a family member will score higher on knowledgeability.

Hypothesis 12: Respondents who have visited a mental disorder unit will score higher on knowledgeability.

Results support hypothesis 10, 11, and 12. Respondents with mental health experience score higher on knowledgeability.

Hypothesis 13: High school teachers will score higher on knowledgeability than high school students.

Data support hypothesis 13.

Hypotheses 1 and 2 were tested by comparing the mean responses to 35 mental health opinion items for students and teachers (hypotheses 1 and 1A) and students and the "Grand Rapids Citizens" (hypotheses 2 and 2A). This comparison was made for each grade level and for all five schools.

Hypotheses 3-13 were tested by devising a K-score for each respondent and comparing the score to specific social variables.

Results show a clear relationship between knowledgeability and specific social variables. However, relationships were not strong.

#### Limitations, Contributions, Recommendations

The results of this study may be divided in two primary parts. The first part (hypotheses 1 and 2) is concerned with the closeness of student responses by grade, to those of their teachers and to the "Grand Rapids Citizens." This analysis utilizes all 35 mental health opinion statements and is distinct from "knowledgeability." This comparison is important to this study because it presents one way of determining to some extent, the "social maturity" of the high school students. "Social maturity" here refers to the extent of socialization into the adult world. I contend that mental health opinions are a part of our cultural belief system and as individuals mature they incorporate the cultural notions of their environment which are transmitted by various means. The school is only one transmission unit that the student encounters, however, its influence should not be understated. The school is considered an ideal setting for this study, because it is during the high school years in which students' opinions

are developing, not only mental health opinions, but opinions and attitudes concerning politics, economics, authority and about worldly phenomena in general.

My position is that mental health opinions and attitudes are not formed independently of other such attitudes about social phenomena. This should be a matter of considerable theoretical interest to the sociologist and sociological social psychologist: in the development of attitudes in young people who are soon to take on adult roles, are the mechanisms and processes essentially the same in different content areas? That is, do these processes, as part of socialization, take place in about the same way with respect to such content areas as political, economic, religious, mental health, etc.? If mental health notions develop in the same manner as, say, political and economic attitudes, sociologically, one might expect a relationship between social-structural variables and knowledgeability. However, the present study does not support the expected relationship between social-structural variables and knowledgeability (specifically, father's education and mother's education were not related to knowledgeability, and results for parental occupation were "muddy" rather than clear-cut).

Findings consistent with hypotheses 1A and 2A support the notion of "social maturity." In all schools the opinions of seniors were closer to the high school teachers and to the "Grand Rapids Citizens" than the opinions

of other class levels. This finding suggests that high school seniors possess a higher level of sophistication in the mental health opinion area than freshmen, sophomores, or juniors. Interaction with the cultural belief system is greater with seniors than with other classes and socialization into the adult world is more prevalent with seniors than with other class levels.

It should be emphasized that when individual schools are viewed, there is not always increasing similarity to "adult" (teachers and "Grand Rapids Citizens") responses at each succeeding grade level--i.e., freshmen are not always least similar in each school, with sophomores somewhat more similar, juniors still more, and seniors most similar. However, when responses for classes of the same level are combined for all schools, as levels increase there is also an increase in similarity of mean responses to "adult" responses from freshmen to senior (Table 23).

The opinions of high school students were compared to those of their teachers and the "Grand Rapids Citizens" because the two samples represent older persons in the population. The teacher samples are important for the purpose of comparison because the school is concretely represented by the teachers. I am willing to assume that the teacher plays a vital part in the socialization of students by influencing their overall development, and that the teacher's opinions and attitudes concerning what

is a psychological problem is transmitted to the students influencing their world view. The "Grand Rapids Citizens" sample was used because it was an available adult sample, considered to approximate a "general public" sample.

Future research efforts may be directed toward acquiring general public samples from each school community. In addition to comparing students to teachers and the general public, future research may sample the opinions of the students' parents. How similar or different are student and parental opinions? These comparisons could be helpful in determining who the significant adults are for high school students.

The second stage of the analysis was concerned with knowledgeability and social variables. One way of beginning to understand the processes that result in knowledgeability differences among students is to see whether, and how, these differences are related to other ways in which students differ. That is, certain social variables can be viewed as independent variables having an effect on knowledgeability as a dependent variable.

The independent variables consisted of grade level, sex, GPA, plans for attending college, father's education, mother's education, father's occupation, mental health experience (friends, family, and visiting of a mental illness unit), and teachers vs. students.



It was hypothesized that as grade levels increase there would also be an increase in mental health knowledge of high school students; seniors will be higher on knowledgeability than other grade levels. This hypothesis was formulated in an effort to determine a kind of developmental process. If the high school years are important for overall development, how crucial is this period? Results did not indicate that knowledge about mental health increased with each grade level for each school; however, when grade levels for all schools were pooled, results were clear and undeniable, and showed a steady increase from freshmen to senior. A clear developmental process for each school was not reflected, although in each school seniors were higher on knowledgeability than freshmen and in three out of five schools seniors were higher than all other classes.

Knowledgeability can be viewed as an indication of how well young people are socialized into the community belief system. It is also concerned with how soon one is socialized into the belief system. Therefore, results consistent with grade level suggest that seniors are more socialized into the belief system than other classes. When students and teachers are compared on knowledgeability, teacher means are higher in each school.

Future research efforts may be directed usefully toward studying mental health opinions at lower school class levels. Each school class performs an important role

in the socialization process. Since the earlier school years are considered impressionable for young people in shaping opinions, the intermediate grade levels in comparison to the high school levels may yield significant contributions.

Knowledgeability was further tested with the variables sex, grade point average, and plans for attending college. Along with class level, these variables when tested, appear to reflect social maturity. Results showed that females are higher than males on knowledgeability for each school. This is an interesting finding since no relationship was expected. The notion that during this period of young people's development, females mature sooner than males may be a determining factor. Future research efforts should address the question of why females are more knowledgeable during the high school years than males. What factors contribute to this increased knowledgeability? Would other measures of knowledgeability show the same relationship?

Students with a high GPA were expected to be higher on knowledgeability. This hypothesis was supported for each school except one. Results support the contrary hypothesis for the Grand Rapids Christian students. The distinctiveness of this result for the Grand Rapids school is an interesting anomaly, and it seems worthwhile to speculate as to why it might have occurred. This school is

different from the others in three major ways: it is parochial (Christian Reformed) rather than public, it is in a fairly large city (SMSA population of over one-half million), and it serves a middle-class and upper-middle-class clientele. My guess is that the third variable is most likely to be related to the fact that in this school those with lower reported GPA's had clearly higher mean knowledgeability scores (the reverse of results in each of the other schools--see Table 34). The complexity of trying to explain this difference can be seen if we note also that this school had the lowest percentage of sampled students with high reported GPA's (Table 8), and the highest percentage of students planning to attend college (83%; Table 3), and that this school does not include a ninth grade (which means, among other things, that the mean knowledgeability for this school is somewhat higher than the others--Table 31). If GPA, college plans, and knowledgeability are seen as parts of an "achievement-anticipation-sophistication" complex, the way in which this complex functions may be quite different in this school, with its distinctive structural attributes.

Students who indicated definite or somewhat definite plans for attending college in each case were higher on knowledgeability. Students reporting college plans were expected to be more socially mature and generally more aware.

The variables grade level, sex, GPA, and college plans can all be viewed as reflecting, in different ways, "social maturity." In addition to grade level and knowledgeability, future research efforts may well address the possible relationship between the subject matter of courses taught and knowledgeability. Students who are enrolled in social science courses may be more knowledgeable and more mature than other students. It may also be important to look at health courses, if available.

It was expected that socio-economic variables (father's education, mother's education, and father's occupation) would influence mental health opinions; however, results showed that these variables were not related to mental health opinions, as measured. It was expected that students of parents with more formal education would become aware of worldly phenomena earlier and would have a broader view of the world in general.

On the other hand, students whose parents have less education might be expected to be more restricted in their world view. Results showed that parental education does not affect mental health knowledgeability as measured by this instrument. Results also demonstrate that father's occupation is not related to knowledgeability; however, there is a tendency for students with upper white collar fathers to be higher on knowledgeability. Other occupational categories are not related to knowledgeability. The absence of a

relationship with parental education and father's occupation is an area that warrants further research.

The final hypotheses in part 2 dealt with mental health experience of friends, family, and visiting mental health units. It was expected that students with more mental health experience would score higher on knowledgeability. Results demonstrate that this hypothesis is supported. Students with more experience had higher knowledgeability; however, relationships were not very strong.

This area is open for future research, since the experience measure used in this research represents only three ways of acquiring this kind of experience. Future research could investigate additional means of acquiring experience. What are some other factors that may be interpreted as experience with mental disorder?

In addition to the above stated areas for future research, investigations may look at the students' self-conceptions in relation to knowledgeability. During the high school years attitudes toward the self can be posited to acquire increasingly adult-like form. Attitudes concerning one's basic worth are important for future development. I would speculate that students with more positive self-conceptions will score higher on knowledgeability.

Social adjustment is another variable that I would suggest for future research. Along with the study of what factors contribute to social adjustment, relating social

adjustment to knowledgeability may be of significance. The marital status of the parents and the number of siblings in a family may be considered, as an indication of the family context which undoubtedly affects these attitudes and opinions. These data do not include an adequate urban sample. Such a sample would provide an indication of the degree to which typical urban characteristics are associated with mental health knowledge. The Grand Rapids sample of this study does include certain urban characteristics. The urbanism variable does not strongly discriminate in terms of mental health opinions in this study and, combining this with the results of my M.A. thesis, I would hypothesize that future analysis of urban characteristics with respect to mental health knowledgeability will not produce important differences.

The instrument for measuring knowledgeability may have some drawbacks. The weaknesses of relationships may be due to the inadequacy of the instrument. Results with this instrument do not discriminate between father's occupation and parental education. This is not to say that the knowledgeability index is entirely invalid. For example, it shows relationships between certain variables (grade level, sex, GPA, college plans, and mental health experience), and knowledge about mental health. Further, in all cases teachers are more knowledgeable than students.

The results of this investigation led to three major conclusions: First, the opinions of high school seniors are more similar to high school teachers and to the "Grand Rapids Citizens" than the opinions of other class levels. Results for individual schools do not show an invariant increase in similarity of responses to high school teachers and the "Grand Rapids Citizens" with an increase in grade levels. However, when grade levels for all schools are combined the results show a steady increase from freshmen to senior. Second, seniors were found to be more knowledgeable about mental health concepts than other grade levels. In individual schools knowledgeability does not increase at each grade level, although when schools are pooled, there is a steady increase in knowledgeability from freshmen to senior. The increase in similarity and the increase in knowledgeability are related, but not identical. It would be possible for one but not the other to have been demonstrated. Since the opinion responses of the teachers and the "citizen" sample are highly correlated (higher than expected), it is not possible to distinguish whether these two kinds of increase on the part of the students can be interpreted as reflecting the unique socializing influence of the teachers as teachers, or whether the teachers simply represent typical adults of the community, with typical community attitudes and opinions. Third, knowledge about mental health opinions of high school students is clearly

related to certain social variables, but not to others. Sex, grade point average, college plans, and experience with mental health problems were found to be related to knowledgeability, but surprisingly, parental education was not, and the relationship between knowledgeability and father's occupation was equivocal.

Research in the mental health area concerning high school students is sketchy. Although much more research is needed in the area of content and development of mental health opinions of young people, the present study has made a contribution in that direction.



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## **APPENDICES**



**APPENDIX A**

**MENTAL HEALTH OPINION ITEMS**

## MENTAL HEALTH OPINION ITEMS

On the following pages are some statements about health problems. We want to know how much you agree or disagree with each statement. To the right of each statement is a rating scale:

Disagree				Agree		
<hr/>						
1	2	3	4	5	6	7

The use of the rating scale can be illustrated with this statement:

"Cigarette smoking causes lung cancer."

If you agree completely, you would check box 7;

If you agree slightly, you would check box 5;

If you are neutral or undecided, you would check box 4;

If you disagree, you would check box 3, 2, or 1,  
according to how strongly you disagree.

Please make one check mark for each statement.

Don't spend too much time on each one--if it is difficult to make up your mind, make the best response you can and go on to the next one.

	Disagree					Agree	
	1	2	3	4	5	6	7
1. Mental disorder is one of the most damaging illnesses that a person can have.	—	—	—	—	—	—	—
2. Nervous breakdowns seldom have a physical origin.	—	—	—	—	—	—	—
3. The seriousness of the mental health problem in this country has been exaggerated.	—	—	—	—	—	—	—
4. Helping the mentally ill person with his financial and social problems often improves his condition.	—	—	—	—	—	—	—
5. Mental patients usually make a good adjustment to society when they are released.	—	—	—	—	—	—	—
6. The good psychiatrists acts like a father to his patients.	—	—	—	—	—	—	—
7. You can tell a person who is mentally ill from his appearance.	—	—	—	—	—	—	—
8. People who become mentally ill have little will power.	—	—	—	—	—	—	—
9. Most mental disturbances in adults can be traced to emotional experiences in childhood.	—	—	—	—	—	—	—
10. People who keep themselves occupied with pleasant thoughts seldom become mentally ill.	—	—	—	—	—	—	—
11. Few people who enter mental hospitals ever leave.	—	—	—	—	—	—	—
12. People cannot maintain good mental health without the support of strong persons in their environment.	—	—	—	—	—	—	—
13. Will power alone will not cure mental disorders.	—	—	—	—	—	—	—

	Disagree					Agree	
	1	2	3	4	5	6	7
14. Women have no more emotional problems than men do.	—	—	—	—	—	—	—
15. Mental illness can usually be helped by a vacation or change of scene.	—	—	—	—	—	—	—
16. The insane laugh more than normal people.	—	—	—	—	—	—	—
17. Psychiatrists try to show the mental patient where his ideas are incorrect.	—	—	—	—	—	—	—
18. Mental disorder is not a hopeless condition.	—	—	—	—	—	—	—
19. Mental health is one of the most important national problems.	—	—	—	—	—	—	—
20. Mental disorder is usually brought on by physical causes.	—	—	—	—	—	—	—
21. The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind.	—	—	—	—	—	—	—
22. Psychiatrists try to teach mental patients to hold in their strong emotions.	—	—	—	—	—	—	—
23. Almost any disease that attacks the nervous system is likely to bring on insanity.	—	—	—	—	—	—	—
24. If a person concentrates on happy memories he will not be bothered by unpleasant things in the present.	—	—	—	—	—	—	—
25. Mental health is largely a matter of trying hard to control the emotions.	—	—	—	—	—	—	—
26. Most of the people in mental hospitals speak in words that can be understood.	—	—	—	—	—	—	—

	Disagree				Agree		
	1	2	3	4	5	6	7
27. There is not much that can be done for a person who develops a mental disorder.	—	—	—	—	—	—	—
28. Most people can recognize the type of person who is likely to have a nervous breakdown.	—	—	—	—	—	—	—
29. Most suicides occur because of rejection in love.	—	—	—	—	—	—	—
30. Many of the people who go to mental hospitals are able to return to work in society again.	—	—	—	—	—	—	—
31. Disappointments do not affect children as much as they do adults.	—	—	—	—	—	—	—
32. Most of the insanity cases are found in people over fifty years of age.	—	—	—	—	—	—	—
33. The eyes of the insane are glassy.	—	—	—	—	—	—	—
34. People who go from doctor to doctor with many complaints know that there is nothing really wrong with them.	—	—	—	—	—	—	—
35. A person cannot rid himself of unpleasant memories by trying hard to forget them.	—	—	—	—	—	—	—

## **APPENDIX B**

### **DEMOGRAPHIC DATA FOR HIGH SCHOOL STUDENTS**

DEMOGRAPHIC DATA FOR HIGH SCHOOL STUDENTS

Information Sheet

High School Students

1. Age \_\_\_\_\_ 2. Sex: Male \_\_\_\_\_ Female \_\_\_\_\_
3. Grade: 9th \_\_\_\_\_ 10th \_\_\_\_\_ 11th \_\_\_\_\_ 12th \_\_\_\_\_
4. Do you plan to go to college after completing high school?
- \_\_\_\_\_ Definitely yes  
\_\_\_\_\_ Probably yes  
\_\_\_\_\_ Probably no  
\_\_\_\_\_ Definitely no
5. What was the last year of school completed by your father?
- \_\_\_\_\_ 8th grade or less  
\_\_\_\_\_ 9th - 11th grade  
\_\_\_\_\_ High school graduate  
\_\_\_\_\_ Vocational school  
\_\_\_\_\_ Some college  
\_\_\_\_\_ College graduate  
\_\_\_\_\_ Professional or graduate school
6. What was the last year of school completed by your mother?
- \_\_\_\_\_ 8th grade or less  
\_\_\_\_\_ 9th - 11th grade  
\_\_\_\_\_ High school graduate  
\_\_\_\_\_ Vocational school  
\_\_\_\_\_ Some college  
\_\_\_\_\_ College graduate  
\_\_\_\_\_ Professional or graduate school
7. What is your father's occupation? \_\_\_\_\_
8. Does your mother now work outside the home?
- \_\_\_\_\_ Yes If "yes," for how many years? \_\_\_\_\_  
\_\_\_\_\_ No If "yes," what is her job? \_\_\_\_\_

9. In what size community have you lived for most of your life? (Check one, please)
- a. On a farm \_\_\_\_\_
  - b. Open country, not a farm \_\_\_\_\_
  - c. Town or city, approximate population of: \_\_\_\_\_;  
 --if town or city, is it a suburb? Yes \_\_\_\_\_ NO \_\_\_\_\_
10. What is your grade point average (GPA)? \_\_\_\_\_

**We** would like to find out about your first-hand experience with problems of mental illness or mental disorder.

**Some** mentally ill people receive professional treatment without being hospitalized. Some people who are regarded as mentally ill or psychologically disordered by friends and family, may or may not receive professional care. This is why we are asking several questions which may seem to be overlapping.

11. Have any of your friends or members of your family ever been admitted to an institution for mental illness?
- Friends: Yes \_\_\_\_\_ No \_\_\_\_\_
- Family: Yes \_\_\_\_\_ No \_\_\_\_\_
12. Have any of your friends or members of your family ever been professionally treated for mental illness or mental disorder?
- Friends: Yes \_\_\_\_\_ No \_\_\_\_\_
- Family: Yes \_\_\_\_\_ No \_\_\_\_\_
13. Have any of your friends or members of your family ever been generally viewed by their acquaintances as mentally ill (whether or not they received professional care)?
- Friends: Yes \_\_\_\_\_ No \_\_\_\_\_
- Family: Yes \_\_\_\_\_ No \_\_\_\_\_
14. Have you ever visited: (not as a client)
- A mental hospital? Yes \_\_\_\_\_ No \_\_\_\_\_
- The psychiatric ward of a general hospital? Yes \_\_\_\_\_ No \_\_\_\_\_
- A community mental health center or clinic? Yes \_\_\_\_\_ No \_\_\_\_\_



## **APPENDIX C**

**TWENTY MENTAL HEALTH OPINION ITEMS USED TO  
DETERMINE THE KNOWLEDGEABILITY SCORE**

TWENTY MENTAL HEALTH OPINION ITEMS USED TO  
DETERMINE THE KNOWLEDGEABILITY SCORE

The seriousness of the mental health problem in this country has been exaggerated.

The good psychiatrist acts like a father to his patients.

You can tell a person who is mentally ill from his appearance.

People who become mentally ill have little will power.

People who keep themselves occupied with pleasant thoughts seldom become mentally ill.

People cannot maintain good mental health without the support of strong persons in their environment.

Will power alone will not cure mental disorders.

The insane laugh more than normal people.

Mental disorder is not a hopeless condition.

Mental health is one of the most important national problems.

Mental disorder is usually brought on by physical causes.

The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind.

Almost any disease that attacks the nervous system is likely to bring on insanity.

Mental health is largely a matter of trying hard to control the emotions.

Most of the people in mental hospitals speak in words that can be understood.

There is not much that can be done for a person who develops a mental disorder.

Most people can recognize the type of person who is likely to have a nervous breakdown.

Many of the people who go to mental hospitals are able to return to work in society again.

The eyes of the insane are glassy.

A person cannot rid himself of unpleasant memories by trying hard to forget them.

**APPENDIX D**

**DISTRIBUTION OF K-SCORES FOR HIGH SCHOOL STUDENTS**

# DISTRIBUTION OF K-SCORES FOR HIGH SCHOOL STUDENTS

## D-1.--Distribution of Knowledgeability Scores (Fowler High School Students).

K-Score	Freshmen	Sophomore	Junior	Senior	Total	Teachers
30-34						
35-39						
40-44	0	1	0	0	1	
45-49	3	1	1	1	6	
50-54	2	9	3	2	16	
55-59	5	6	6	4	21	
60-64	9	11	12	4	36	
65-69	13	12	14	4	43	
70-74	11	7	4	7	29	1
75-79	4	8	6	12	30	2
80-84	4	1	6	4	15	3
85-89	1	1	2	5	9	2
90-94	1	0	1	3	5	4
95-99	0	0	0	0	0	2
Total	53	57	55	46	211	14

**D-2.--Distribution of Knowledgeability Scores (Ovid-Elsie High School Students).**

---

<b>Score</b>	<b>Freshmen</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>	<b>Teachers</b>
<hr/>						
30-34	0	0	1	0	1	
35-39	0	0	0	0	0	
40-44	2	0	2	1	5	
45-49	0	1	2	2	5	
50-54	5	2	4	3	14	
55-59	9	6	7	4	26	
60-64	8	4	12	2	26	1
65-69	7	5	10	1	23	2
70-74	3	4	10	13	30	4
75-79	2	8	4	8	22	1
80-84	1	5	3	4	13	5
85-89	0	1	2	2	5	2
90-94	1	1	1	2	5	5
95-99	0	0	0	1	1	1
<hr/>						
<b>Total</b>	<b>38</b>	<b>37</b>	<b>58</b>	<b>43</b>	<b>176</b>	<b>21</b>

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**D-3.--Distribution of Knowledgeability Scores (St. Johns  
High School Students.**

<b>K- Score</b>	<b>Freshmen</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>	<b>Teachers</b>
<b>30-34</b>	0	0	0	0	0	1
<b>35-39</b>	0	0	0	1	1	0
<b>40-44</b>	0	0	0	0	0	0
<b>45-49</b>	1	0	2	2	5	0
<b>50-54</b>	2	0	2	3	7	1
<b>55-59</b>	6	3	6	7	22	1
<b>60-64</b>	13	3	9	13	38	3
<b>65-69</b>	10	6	12	6	34	4
<b>70-74</b>	13	5	6	12	36	10
<b>75-79</b>	5	7	6	12	30	11
<b>80-84</b>	3	5	3	5	16	11
<b>85-89</b>	1	0	2	4	7	11
<b>90-94</b>	0	0	0	7	7	5
<b>95-99</b>	0	0	0	1	1	2
<b>Total</b>	<b>54</b>	<b>29</b>	<b>48</b>	<b>73</b>	<b>204</b>	<b>60</b>

**D-4.--Distribution of Knowledgeability Scores (Williamston High School Students).**

<b>K- Score</b>	<b>Freshmen</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>	<b>Teachers</b>
<b>30-34</b>						
<b>35-39</b>						
<b>40-44</b>	3	0	0	0	3	0
<b>45-49</b>	4	1	0	0	5	0
<b>50-54</b>	0	2	0	1	3	0
<b>55-59</b>	10	8	2	4	24	0
<b>60-64</b>	11	11	8	7	37	1
<b>65-69</b>	8	10	11	12	41	0
<b>70-74</b>	3	9	8	10	30	1
<b>75-79</b>	4	7	14	13	38	5
<b>80-84</b>	2	11	12	6	31	5
<b>85-89</b>	0	4	4	1	9	5
<b>90-94</b>	0	2	1	4	7	4
<b>95-99</b>	0	0	0	0	0	2
<b>Total</b>	45	65	60	58	228	23



**D-5.--Distribution of Knowledgeability Scores (Grand Rapids Christian High School Students).**

<b>K- Score</b>	<b>Freshmen</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>	<b>Teachers</b>
<b>30-34</b>						
<b>35-39</b>						
<b>40-44</b>						
<b>45-49</b>	-	0	2	1	3	0
<b>50-54</b>	-	1	2	0	3	0
<b>55-59</b>	-	7	3	0	10	1
<b>60-64</b>	-	7	13	2	22	1
<b>65-69</b>	-	6	12	10	28	5
<b>70-74</b>	-	7	7	10	24	4
<b>75-79</b>	-	6	8	11	25	2
<b>80-84</b>	-	4	15	4	23	7
<b>85-89</b>	-	1	4	5	10	7
<b>90-94</b>	-	3	3	4	10	7
<b>95-99</b>	-	0	0	0	0	3
<b>Total</b>	-	42	69	47	158	37

**D-6.--Combined Knowledgeability Scores for Each Class for  
All Schools (n = 977).**

<b>K- Score</b>	<b>Freshmen</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>	<b>Teachers</b>
<b>30-34</b>			1		1	1
<b>35-39</b>				1	1	0
<b>40-44</b>	5	1	2	1	9	0
<b>45-49</b>	8	3	7	6	24	0
<b>50-54</b>	9	14	11	9	43	1
<b>55-59</b>	30	30	24	19	103	2
<b>60-64</b>	41	36	54	28	159	6
<b>65-69</b>	38	39	59	33	169	11
<b>70-74</b>	30	32	35	52	149	20
<b>75-79</b>	15	36	38	56	145	21
<b>80-84</b>	10	26	39	23	98	31
<b>85-89</b>	2	7	14	17	40	27
<b>90-94</b>	2	6	6	20	34	25
<b>95-100</b>	0	0	0	2	2	10
<b>Total</b>	190	230	290	267	977	155

**APPENDIX E**

**CITY, SCHOOL, COUNTY, AND DISTRICT CHARACTERISTICS  
FROM WHICH SAMPLES WERE CHOSEN**

E-1.--Social Characteristics of Cities from Which Samples Were Chosen.

	Population	% Change		% Non-White	% Under 18 yr	% 18-64 years	% 65 and over	Fertility Ratio	% Male-18 & over	Persons per Household
		50-60	60-70							
Michigan	8,875,083		13.4	11.7	36.6	54.9	8.5	375	47.9	3.27
St. Johns	6,672	13.6	18.5	0.3	38.7	50.6	10.7	424	46.4	3.26
Williamston	2,600	7.9	17.4	0.2	37.9	50.8	11.3	398	45.8	3.12
Grand Rapids	197,649	0.5	11.5	12.0	33.9	54.0	12.2	367	45.0	3.00
Ovid	1,650	6.7	9.6	0.2	37.1	51.1	11.8	--	(46.1)	3.23
Elsie	988	2.4	5.9							
Fowler	1,020	26.5	19.4	0.6	41.4	47.5	11.1	--	(46.9)	3.56
<u>Counties</u>										
28* Clinton	48,492	21.7	27.7	0.4	41.6	51.4	6.9	458	48.9	3.55
6* Ingham	261,039	22.2	23.5	6.4	32.6	60.6	6.8	331	48.3	3.10
5* Kent	411,044	26.0	13.2	6.1	37.3	53.4	9.3	377	46.5	3.25

\*1970 Rank of 83 counties.

## E-1.--Continued.

	25 & Older		Females 16 & Over		% Emp. Persons, % in	Families		
	Foreign Born	Median School yrs Completed	% H.S. Grad. or More	% in Labor Force	Unem- ployed	Manuf. industries	Median Income	Below Poverty Level or more
Grand Rapids	5.0	12.1	52.8	44.1	5.8	30.9	10,728	6.6 23.2
St. Johns	1.1	12.2	57.4	46.1	3.7	31.5	11,357	4.9 24.1
Williamston	2.2	12.4	65.3	45.0	7.0	16.1	11,257	9.9 21.3

Counties	% Rural Non-farm	% Rural Farm	% Foreign Born	Persons 14-17 yrs, % in school	25 & over Median School yrs.	Residence in 1965		% workers who worked in Co. of Residence
						in 1965 Same House		
Clinton	57.9	20.8	1.2	97.5	12.1	58.9		32.7
Ingham	11.4	3.0	3.1	93.0	12.4	42.3		85.6
Kent	14.0	2.8	4.0	96.3	12.2	55.9		92.2
The State	21.7	4.4	4.8	94.2	12.1			

Source: General Social and Economic Characteristics, 1970 Census Population. United States Department of Commerce Publication. Bureau of the Census. April, 1972.

Population Changes of Counties and Incorporated Places in Michigan. Agricultural Experiment Station, Department of Sociology, Michigan State University, East Lansing, Michigan. Rural Sociology Studies, No. 4, May, 1971.

E-2.--General Fund Expenditure Per Pupil by Function.

School District	Total Institution Expenditure		Instruction Salaries		Average Teacher Salary		Pupils	
	Per Pupil	Rank	Pupil	Rank	Amount	Rank	Number	Rank
<u>Clinton County:</u>								
Fowler Public Schools	668.61	398	627.75	375	12,606	222	871	440
Ovid-Elsie Area Schools	737.83	249	693.17	228	12,202	278	2,448	222
St. Johns Public Schools	759.00	221	673.63	273	13,181	169	4,510	108
<u>Ingham County:</u>								
Williamston Community Schools	737.55	250	695.68	224	12,002	312	1,897	294

Source: Michigan Department of Education. Ranking of Public High School Districts by Selected Financial Data. Bulletin 1012, 1974-75.

E-3.--Selected Data for Michigan's 530 K-12 School Districts, Grouped by Membership for 1974-75.

Membership Group	Number of District	State Equalized Valuation Per State Aid Member	Active Membership	Per Pupil Operating Expenditures	Average Teacher's Salary
50,000 & Over	1	22,126	260,905	1,271.40	15,903.60
20,000-49,999	10	24,041	293,645	1,289.03	15,038.39
10,000-19,999	21	30,303	289,808	1,342.13	15,553.55
5,000- 9,999	62	24,914	432,580	1,208.40	14,274.46
4,500- 4,999 (St. Johns)	14	24,537	66,658	1,182.42	14,120.08
4,000- 4,499	25	21,149	105,865	1,150.64	13,410.57
3,500- 3,999	21	24,095	77,721	1,089.00	13,340.16
3,000- 3,499	31	25,150	100,902	1,115.66	12,994.26
2,500- 2,999	31	22,862	84,495	1,026.21	12,332.86
2,000- 2,499 (Ovid-Elsie)	67	20,528	151,426	1,053.33	12,665.32
1,500- 1,999 (Williamston)	67	21,493	116,732	1,025.89	12,065.58
1,000- 1,499	66	19,923	83,319	1,004.93	11,737.17
500- 999 (Fowler)	77	25,347	59,842	1,039.98	11,357.93
Below 500	37	31,689	11,969	1,115.40	11,222.39
Total for State	530	24,228	2,135.867	1,191.57	14,068.41

Source: Michigan Department of Education.

E-4.--General Fund Revenues Per Pupil By Source (530 Districts).

District	<u>Local Sources</u>			<u>State Sources</u>		
	Per Pupil	Rank	% of Districts	Direct Appropriations		
				Per Pupil	Rank	% of Districts
<u>Clinton County:</u>						
Fowler Public Schools	443.96	414	78	686.45	57	11
Ovid-Elsie Area Schools	528.41	313	59	605.90	150	28
St. Johns Public Schools	594.52	253	48	620.10	133	25
<u>Ingham County:</u>						
Williamston Community Schools	716.08	170	32	504.25	275	52

Source: Michigan Department of Education.



E-5.--Michigan Public School Dropouts by County and By School District, 1973-74.

School District By County	9th				10th			
	Adjusted Membership		Dropout		Adjusted Membership		Dropout	
	Male	Female	Male	Female	Male	Female	Male	Female
<u>Clinton County:</u>								
Fowler Public Schools	29	29	0	0	35	30	0	1
Ovid-Elsie Area Schools	107	98	5	3	87	66	6	4
St. Johns Public Schools	208	176	9	5	190	194	15	9
<u>Ingham County:</u>								
Williamston Community Schools	65	73	2	1	74	77	10	4

E-5. ---Continued.

School District By County	10th				12th			
	Adjusted Membership		Dropout		Adjusted Membership		Dropout	
	Male	Female	Male	Female	Male	Female	Male	Female
<u>Clinton County:</u>								
Fowler Public Schools	31	39	0	2	41	26	0	0
Ovid-Elsie Area Schools	87	90	6	9	94	87	5	9
St. Johns Public Schools	205	154	12	6	144	139	7	4
<u>Ingham County:</u>								
Williamston Community Schools	76	81	7	5	74	74	2	7

E-5.--Continued.

School District By County	Total		Dropout Rate
	Adjusted Membership	Dropout	
<u>Clinton County:</u>			
Fowler Public Schools	260	3	1.15
Ovid-Elsie Area Schools	736	47	6.39
St. Johns Public Schools	1,410	67	4.75
<u>Ingham County:</u>			
Williamston Community Schools	591	38	6.43

Source: Michigan Department of Education, Public High School Dropouts by County and School District. Michigan Statistical Bulletin 4007, August, 1975.

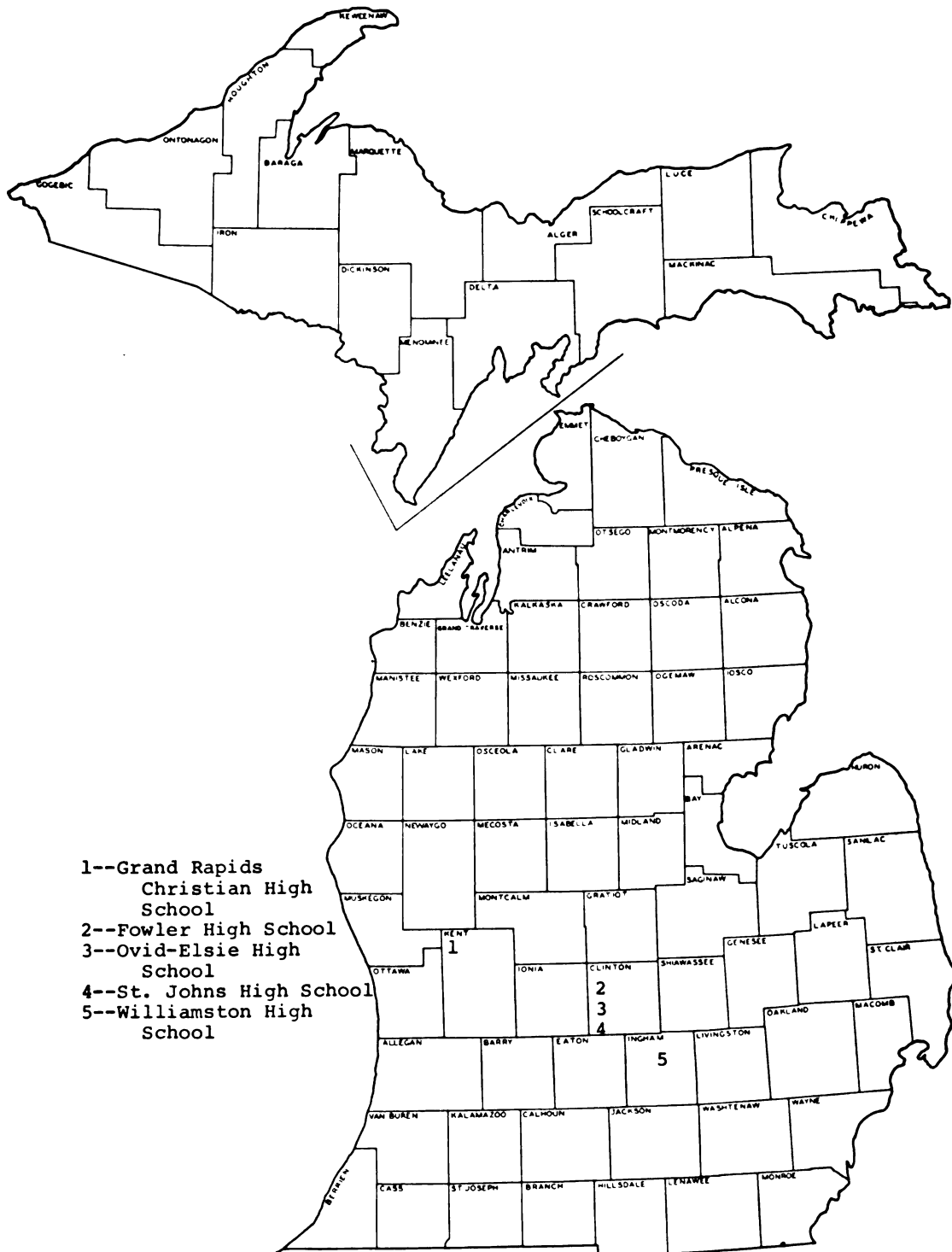
Table E-6 presents the dropout statistics for three school years including the period of 1971-72 through 1973-74 by the membership size of school districts in Michigan. The data indicate that dropouts occur in general, more frequently in large school districts than in small districts. During the past three school years, the statewide dropout rates increased gradually. The pattern of changes in dropout rates was, however, inconsistent among different groups of school districts; of the fourteen categories, the dropout rates for eight increased gradually during this period; the rates for five fluctuated; and the rates for one group of school districts (20,000 to 49,999) decreased gradually.

TABLE E-6.--Michigan Public School Dropout Rates by Group of School Districts Classified by Student Membership, 1971-72 through 1973-74.

Student Membership Limits of School Districts in Each Group <sup>1</sup>	Number of Districts Reporting			Grades 9-12 Adjusted School Membership			Number of Dropouts			Annual Dropout Rate		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
50,000 and Over	1	1	1	73,083	74,141	67,189	10,436	8,861	9,925	14.28%	11.95%	14.77%
20,000 to 49,999	11	11	11	86,126	87,803	87,868	5,891	5,777	5,674	6.84%	6.58%	6.46%
10,000 to 19,999	23	20	20	97,691	89,639	87,868	5,598	5,504	5,718	5.73%	6.14%	6.51%
5,000 to 9,999	66	66	66	135,751	141,138	141,485	6,861	7,847	8,602	5.05%	5.56%	6.08%
4,500 to 4,999 (St. Johns)	13	16	16	17,569	23,095	22,507	915	1,287	1,279	5.21%	5.57%	5.68%
4,000 to 4,499	17	14	14	20,157	16,911	17,687	1,101	952	999	5.46%	5.63%	5.65%
3,500 to 3,999	26	30	30	27,026	32,389	32,645	1,411	2,086	2,061	5.22%	6.46%	6.31%
3,000 to 3,499	23	25	25	21,861	24,045	24,635	1,223	1,440	1,364	5.59%	5.99%	5.54%
2,500 to 2,999	32	31	31	25,189	24,470	25,344	1,283	1,296	1,444	5.09%	5.30%	5.70%
2,000 to 2,499 (Ovid-Elsie)	67	67	67	43,385	43,933	45,137	2,163	2,357	2,366	4.99%	5.36%	5.24%
1,500 to 1,999 (Williamston)	62	65	65	31,880	34,175	35,287	1,507	1,719	1,886	4.73%	5.03%	5.34%
1,000 to 1,499	74	70	70	27,384	26,667	27,451	1,266	1,344	1,355	4.62%	5.04%	4.94%
500 to 999 (Fowler)	78	78	78	17,455	18,038	18,556	695	752	855	3.98%	4.17%	4.61%
Below 500	36	36	38	3,315	3,432	3,572	93	132	138	2.81%	3.85%	3.86%
Total	529	530	532	627,872	639,776	637,231	40,443	41,354	43,666	6.44%	6.46%	6.85%

<sup>1</sup>The categories are the same as those used in the publication entitled, Analysis of Michigan Public School Revenues and Expenditures, Bulletin 1011, Michigan Department of Education.

Source: Michigan Department of Education, Public High School Dropouts by County and School District, Michigan Statistical Bulletin 4007, August, 1975.



**APPENDIX F**

**DISTRIBUTION OF SOCIAL CHARACTERISTICS  
FOR THE "GRAND RAPIDS CITIZENS" AND  
A LISTING OF CIVILIAN OCCUPATIONS**

DISTRIBUTION OF SOCIAL CHARACTERISTICS  
FOR THE "GRAND RAPIDS CITIZENS" AND  
A LISTING OF CIVILIAN OCCUPATIONS

F-1.--Distribution of Social Characteristics of the "Grand Rapids Citizens" (n = 71).

	N	%
<u>Sex:</u>		
Male	59	83.10
Female	9	12.68
NA	3	4.23
<u>Age:</u>		
25 or less	27	38.03
26-33	26	36.62
34-41	8	11.27
42-49	6	8.45
50 & over	1	1.41
NA	3	4.23
<u>Education:</u>		
8th grade	1	1.41
9-11	1	1.41
H.S. Grad.	16	22.54
Vocational School	1	1.41
Some College	24	33.80
College Grad.	13	18.31
Prof. or Grad. School	12	16.90
NA	3	4.23
<u>Community Type:</u>		
Farm	13	18.31
Suburban	19	26.76
Non-Suburban	32	45.07
NA	7	9.86



## F-1.--Continued.

		N	%
<u>Community Size:</u>			
Less than 20,000		30	42.25
20,000-99,000		7	9.86
100,000-499,000		23	32.39
500,000-1 million		4	5.63
Over 1 million		1	1.41
NA		6	8.46
<u>Mental Health Experience:</u>			
Institutionalized:	Friend--yes	21	29.58
	Family--yes	14	19.72
Treated:	Friend--yes	19	26.76
	Family--yes	19	26.76
Viewed as Mentally Ill:	Friends--yes	17	23.94
	Family--yes	14	19.72
Visited:	Mental Hospital--yes	33	46.48
	Psychiatric Ward--yes	24	33.80
	Mental Health Clinic--yes	18	25.35
Friends--No Experience	0	44	61.97
No. of "Yes"	1	5	7.04
Responses	2	11	15.49
	3	11	15.49
Family--No Experience	0	48	67.61
No. of "yes"	1	4	5.63
Responses	2	11	15.49
	3	8	11.27
Visit--No Experience	0	31	43.66
No. of "Yes"	1	16	22.54
Responses	2	13	18.31
	3	11	15.49
Combined Experience--No Experience	0	20	28.17
	1	6	8.45
No. of "Yes"	2	14	19.72
Responses	3	6	8.45
	4	10	14.08
	5	6	8.45
	6	3	4.23
	7	3	4.23
	8	1	1.41
	9	2	2.82

F-2.--Listing of Civilian Occupations (Grand Rapids  
Citizens," n = 71).

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Secretary

RN

Administrative Assistant

Student

Assistant Jewelry Store Manager

Construction Manager

Construction

Teacher

Police Officer

Salesman

Machine Repair & Design

Assembly Line Worker

Service Repair

Mechanic

Deisel Mechanic

Electronic Technician

Truck Driver

Accountant

Foreman

LPN

Waitress

Bank Supervisor

Chiropractor

Shipping Clerk

Legal Secretary

Fruit & Vegetable Inspector

Acquisition of Right of Way

Radiologic Technologist

Surgeon

Hospital Food Service Director

Printing Plant Manager

Heating, Cooling & Steelmetal  
Repair

F-2.--Continued.

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Lab Tester--Industrial Adhesive Factory

Minister

Machine Builder

Industrial Management

Consulting Engineer

Urban Planner

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## APPENDIX G

### MEAN COMPARISONS OF THREE HIGH SCHOOL SAMPLES:

MICHIGAN HIGH SCHOOL STUDENTS (n = 989) ,

SEATTLE HIGH SCHOOL STUDENTS (n = 728) ,\*

AND GERMAN HIGH SCHOOL STUDENTS (n = 522) .\*

\*Townsend Articles, 1975 and 1976; data also provided by Professor Townsend in personal communication.

G-1.--Item Means for Three High School Samples.

Item No.	Mich. H.S. Stu.	Townsend's American Students	Townsend's German Students
1	4.68	4.60	5.40
2	3.38	3.60	4.60
3	3.02	2.70	2.30
4	4.82	4.70	3.10
5	3.71	4.10	3.90
6	4.18	4.60	5.10
7	2.69	2.70	3.10
8	3.58	3.50	3.10
9	5.29	4.90	4.40
10	3.37	2.90	2.70
11	2.88	2.60	3.00
12	4.66	4.20	3.20
13	4.82	4.70	5.00
14	4.10	4.00	4.00
15	3.71	3.60	2.10
16	3.24	2.80	3.20
17	4.14	4.30	4.60
18	5.68	6.00	5.60
19	4.87	5.50	5.00
20	3.60	3.30	2.80
21	3.63	3.40	3.80
22	3.06	2.90	4.00
23	3.13	3.20	3.10
24	2.92	2.80	3.10
25	3.95	3.90	3.10
26	4.37	4.80	4.70
27	2.37	2.00	1.90
28	3.43		
29	4.77	4.50	3.90
30	4.55		
31	2.94		

## G-1.--Continued.

Item No.	Mich. H.S. Stu.	Townsend's American Students	Townsend's German Students
32	2.98		
33	3.26	2.90	2.80
34	3.47		
35	4.66	4.80	5.70
	n = 35	n = 30	n = 30

Correlations: A-B: .96; A-C: .70; B-C: .79.

## **APPENDIX H**

### **STUDENT MEAN RESPONSES TO THIRTY-FIVE MENTAL HEALTH OPINION ITEMS**

H-1.--Student Means for Mental Health Opinion Items.

Item No.	St. Johns	Ovid-Elsie	Fowler	Williamston	Grand Rapids	$\bar{X}$
1	4.91	4.55	4.67	4.62	4.65	4.68
2	3.50	3.30	3.66	3.34	3.08	3.38
3	2.89	3.01	3.22	3.16	2.81	3.02
4	4.85	4.95	4.70	4.76	4.82	4.82
5	3.72	3.80	3.73	3.63	3.69	3.71
6	4.10	4.29	4.51	4.02	3.96	4.18
7	2.58	2.99	2.68	2.58	2.61	2.69
8	3.63	3.86	3.68	3.37	3.37	3.58
9	5.18	5.43	5.37	5.33	5.15	5.29
10	3.48	3.38	3.57	3.34	3.09	3.37
11	3.08	2.71	2.97	2.84	2.84	2.88
12	4.61	4.54	4.78	4.49	4.87	4.66
13	4.77	4.74	4.75	4.76	5.06	4.82
14	4.02	3.74	4.27	4.20	4.27	4.10
15	3.74	3.64	3.75	3.79	3.63	3.71
16	3.38	3.36	3.28	3.10	3.08	3.24
17	4.05	4.23	4.30	4.11	4.01	4.14
18	5.59	5.51	5.82	5.61	5.86	5.68
19	4.97	5.01	4.84	4.73	4.98	4.87
20	3.64	3.65	3.46	3.54	3.73	3.60
21	3.81	3.81	3.68	3.46	3.37	3.63
22	3.25	2.98	3.60	2.35	3.14	3.06
23	3.27	3.38	3.13	2.95	2.94	3.13
24	2.91	2.94	3.25	2.81	2.68	2.92
25	3.97	3.99	4.28	3.91	3.59	3.95
26	4.26	4.27	4.36	4.48	4.49	4.37
27	2.45	2.34	2.53	2.34	2.20	2.37
28	3.20	3.64	3.53	3.30	3.50	3.43
29	4.65	5.01	4.61	4.62	4.97	4.77
30	4.59	4.33	4.53	4.60	4.68	4.55



## H-1.--Continued.

Item No.	St. Johns	Ovid- Elsie	Fowler	Williamston	Grand Rapids	$\bar{X}$
31	3.03	2.77	2.97	3.08	2.87	2.94
32	3.13	2.93	2.92	2.95	2.96	2.98
33	3.38	3.56	3.26	3.07	3.02	3.26
34	3.37	3.65	3.34	3.61	3.40	3.47
35	4.52	4.94	4.50	4.70	4.64	4.66

**APPENDIX I**

**CORRELATIONS OF MEANS AMONG ELEVEN SAMPLES  
ON MENTAL HEALTH OPINION STATEMENTS**

TABLE I-1.--Correlations of Means Among Eleven Samples on Mental Health Opinion Statements.\*

Sample	N	Knoxv.		Ill.	Expert	Phys'n		H.S. Students		'62 Coll.	'71 Coll.	MH Stu.	'73 Exp.		NCUB	CB
		1	2			3	4	5a	5b				6	7		
1. General Public--Knoxville	201		.95		.75	(.90)		.13	.44	.81	.78	.69	.78	.86		.74
2. General Public--Illinois	349	37			.81			.14	.42	.85	.78	.63	.88	.77		.64
3. Experts (National)	176	50	37			(.95)		.07	.11	.94	.94	.90	.96	.81		.79
4. Physicians--General Practice	431	( 7)			( 7)					.95	.93	.92	.91	.86		.85
5a. High School Students--Before	78	20	16	20					.47	(.43)	(.40)	(.20)	(.40)	(.30)		(.52)
5b. High School Students--After	75	20	16	20						(.28)	(.24)	(.06)	(.32)	(.50)		(.50)
6. College Students, 1962	215	30	20	30		20		(10)	(10)		.98	.92	.96	.86		.89
7. College Students, 1971	319	30	20	30		20		(10)	(10)	56		.97	.95	.85		.91
8. College Mental Health Students, 1972	50	30	20	30		20		(10)	(10)	56			.94	.83		.87
9. Experts (Local), 1973	17	30	20	30		20		(10)	(10)	56	56	56		.83		.87
10. Non-College Urban Blacks, 1974	25	30	20	30		20		(10)	(10)	55	55	55	55			.91
11. College Blacks, 1974	40	30	20	30		20		(10)	(10)	56	56	56	56	55		

\*Pearsonian correlations of means above diagonal.

Below diagonal: Number of pairs of means on which correlation is calculated.

Correlations based on 10 or fewer pairs shown in parentheses. All correlations except those involving the high school student sample are significantly different from zero at the 1% level.

Data source for samples 1 through 5: Nunnally, 1961; these data were gathered between 1954 and 1959.

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