# COLLEGE STUDENTS' KNOWLEDGEABILITY AND OPINIONS ABOUT MENTAL HEALTH IN 1962 AND 1971

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
DOROTHY L. SMITH
1972

ABSTRACT

COLLEGE STUDENTS' KNOWLEDGEABILITY AND OPINIONS ABOUT MENTAL HEALTH IN 1962 AND 1971

By

Dorothy Lee Smith

The problem of this investigation is to determine whether there has been a considerable change in mental health attitudes in the last decade. If there has been a change in attitudes about mental illness, in what direction and to what extent has this change evolved?

A major purpose of this study is to give a more precise and adequate account of the changes that have taken place in mental health attitudes in the last decade.

The problem of this investigation evolved through a critical review of literature pertaining to attitude change concerning mental illness, and to empirical relationships between knowledge about mental illness and specific sociological variables. After the review of relevant theoretical literature, the specific problem of this investigation, therefore, centered around two major questions concerning concepts of mental illness:

1. What changes have taken place in mental health attitudes in the last decade?

(a) In what direction and to what extent has this change evolved?

2. Are selected social characteristics of respondents related to knowledgeability concerning mental health?

For comparison purposes, two samples were used in this investigation: Sample 1962 consists of students enrolled in selected Michigan State University sociology courses during the 1962 summer term (N=215). Sample 1971 consists of students enrolled in the same sociology courses at Michigan State University during the 1971 summer term (N=319).

The data were subjected to two main analyses:

1. For each of fifty-six mental health opinion items, the mean response for 1962 was compared to the mean response for 1971; differences were statistically significant for twenty items.

2. The relationship between knowledgeability (a score based on accord with the consensual opinion of mental health experts regarding ten of the opinion items) and each of ten social characteristics of respondents was investigated for each sample.

Results of this investigation led to two major conclusions: First, to the extent the sample subjects can be

viewed as comparable, there appeared to have been little change in mental health attitudes in the last decade among students at a large university. Of the fifty-six items the only apparent change taking place was evident in the results of twenty statistically significantly different mean responses to opinion items, varying in degree and direction of attitude change. Second, that knowledge about mental health concepts is only weakly related to the ten social characteristics used in this study, with the exception of age where a somewhat stronger relationship was found.

The investigation was concluded with a discussion of contributions and suggestions for future research.

# COLLEGE STUDENTS' KNOWLEDGEABILITY AND OPINIONS ABOUT MENTAL HEALTH IN 1962 AND 1971

By

Dorothy L. Smith

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Sociology

1972

ACKNOWLEDGMENTS

I am grateful to Professor Donald W. Olmsted of the Department of Sociology at Michigan State University for the extreme interest and worthy suggestions he extended as chairman of my committee.

In addition, I wish to express my gratitude to the other members of my committee: Professor James B. McKee of the Department of Sociology at Michigan State University and Professor Wilbur B. Brookover of the Department of Sociology at Michigan State University.

I also wish to express my gratefulness to Dr. Richard J. Morse of the Department of Sociology at Fort Valley State College, Fort Valley State College, Fort Valley, Georgia, for the inspiration and encouragement he extended during my entire stay at Michigan State University.

My association with these and others has been a rewarding and valuable experience. To these and others I extend my sincere appreciation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHIC PRESENTATIONS

# CHAPTER I

## INTRODUCTION

This study of mental health is concerned with the study of information about the areas of psychotic, neurotic, and mentally deficient behavior.

In recent years psychologists have shown increasing concern with the public's belief about mental illness, although fewer studies have probably been devoted to this problem than any other in the field of social psychology. Considering the manifest importance of this problem, there has been little systematic research directed toward the finding of relationships between knowledge about mental illness and related social variables. Research of this kind depends on the adequate conceptions and objective measurement of attitudes toward mental illness and the mentally ill. The present research has sought to meet such needs.

Even though causes, effective therapy, diagnosis, classification, and social effects of mental disorder are professional matters of concern to mental health

professionals, the opinions and attitudes of the citizenry--the man in the street--are of critical importance.

Although college students are not a cross-section of the general population, a study of the opinions and attitudes of college students is of grave importance for the following reasons:

1. College students constitute a segment of our society and are not completely different.
2. We can determine to what extent they accept or reject mental illness and the mentally ill.
3. We can determine to what extent the opinions and attitudes of college students are in accord with the mental health professionals.
4. College students may become influential leaders in the community, in the organization of modern mental health programs and community-based treatment of mental disorders.

Considering that college students constitute a segment of our society, an assessment of the opinions and attitudes of college students enables one to make careful inferences relative to the entire population.

According to Halpert, the current emphasis on community-based treatment of mental disorders and on viewing mental illness in terms of social malfunction has focused

increased importance on community attitudes about mental illness, the mentally ill and those who treat them. An appraisal of the present status of public opinions and attitudes of mental illness is essential in planning effective educational programs designed to reach specific target audiences, each with its own background and special frames of reference.[1]

Are college students more knowledgeable about mental illness today than they were ten years ago? A review of studies reveals that a larger proportion of the public seemed to be more knowledgeable about mental illness and to have more enlightened attitudes today than ten years ago. Expression of enlightened attitudes is an important advance in public behavior related to mental illness, although it is not clear that this advance indicates a greater acceptance of the mentally ill.

Knowledgeability indicates a correctness of beliefs based on professional opinion. The purpose of a knowledgeability score is to determine if some students are more knowledgeable about mental health concepts than others. Although a group of respondents may indicate any opinion desired on mental health items, there is a further question of the correctness of those views. For example, people could

---

[1]Harold Halpert, "Surveys of Public Opinions and Attitudes About Mental Illness," Public Health Reports, Vol. LXXX (July, 1965), 589.

believe that poor living conditions cause mental disorder. This opinion would be viewed by mental health professionals as incorrect. Although the question of correctness is not always easy to assess, one could establish not only what an opinion is but whether or not it is correct. We cannot only observe whether attitudes and opinions change, we can observe how close or far apart they are from the mental health professionals. Therefore, this aspect of the study is analyzed in view of the development of a knowledgeability score.

Since our society is composed of individuals with various social characteristics, there is the further question of whether knowledgeability is related to selected social variables. For example:

1. Is knowledgeability related to the different age levels of the respondents? That is, will older respondents be more or less knowledgeable than younger respondents?

2. Is knowledgeability related to the sex (male-female) of the respondents?

3. Is knowledgeability related to the type of community the respondent resided during most of the first eighteen years of his life?
   (a) on a farm;
   (b) in the open countryside, but not on a farm;
   (c) town or city.

4. Is knowledgeability related to whether any good friends of the respondent have ever been mentally ill? And finally,

5. Is knowledgeability related to whether any member of the respondent's family has ever been mentally ill?

It is assumed that those with direct contact with the mental patients will tend to be more knowledgeable about mental illness and generally more understanding toward the mentally ill.

Considerable attention has been given to public attitudes about mental illness in the United States in recent years. With the emergence of new emphasis and treatment of the mentally ill, the public's attitude has assumed critical importance. Public understanding and favorable attitudes are somewhat essential for optimum utilization of the new types of mental health facilities and for acceptance of a greater number of mentally ill persons who can now be treated in the community.

The present study, being among the most recent, will focus upon the attitudes of college students at Michigan State University.

## The Problem

The problem of this investigation is to determine whether there has been a change in mental health attitudes

concerning various aspects of our society, in the last decade. If a change in attitudes has evolved, what is the direction and degree of this change?

The problem of this research emerged as a result of a critical review of literature pertaining to attitude change toward concepts of mental health and to the finding of empirical relationships between knowledge of mental health concepts and specific sociological variables. After a careful review of relevant theoretical literature, the specific problem of this research evolved around two major questions pertaining to conceptions of mental illness:

1. What changes have taken place in mental health attitudes in the last decade?
   (a) In what direction and to what extent has this change evolved?
2. Are selected social characteristics of respondents related to knowledgeability concerning mental health?

## Importance of the Problem

The problem investigated in this research is important for at least three specific reasons. First, although college students do not represent a cross-section of the general population, an assessment of the opinions and attitudes of college students enables one to make certain careful inferences relative to the general population. The

opinions and attitudes of college students are important for the several reasons advanced earlier in this chapter.

Second, an especially valuable aspect of the problem is its concern with present conceptions of mental illness and the changes in these conceptions that have possibly evolved over a period of time, concerning various aspects of the society. The problem investigated in this study, if resolved, will contribute considerably to a more precise specification of attitude change and the extent and direction this change has emerged in the last decade.

Third, an important aspect of the study is to give a more precise and adequate account of the relationship between knowledgeable conceptions of mental illness and various sociological variables. Relationships, however weak between sociological variables and knowledge concerning mental illness have been demonstrated. For example, previous research supports our present claim that a weak relationship exists between knowledge of mental health concepts and the level of formal education, although empirical knowledge of this kind, concerning the finding of relationships between other variables and knowledge of mental health concepts is somewhat limited. Therefore, the present problem will further contribute to a more precise specification of the relationships, however small, between knowledge of mental health concepts and selected social variables.

## Review of Literature

Since the establishment of the National Institute of Mental Health, various surveys have been conducted to assess the American public's opinions and attitudes about mental illness. These surveys have been made at different times, with different investigators, different research designs, and different populations.

Although comparisons are difficult, the general impression conveyed by the results of these studies is that the public is more knowledgeable about mental illness today than it was a decade or two ago and that it expresses more tolerant attitudes toward the mentally ill. Unresolved questions remain, however. Is increased knowledge about mental illness equivalent to increased understanding of such disorders? More important, in considering the role of the public, is expression of more tolerant attitudes equivalent to increased acceptance of mentally ill persons in the community, in the home, and in places where people work and congregate?[2] The answers to these and other questions do not appear to be unqualifiedly in the affirmative.

---

[2]Harold Halpert, "Public Acceptance of the Mentally Ill," Public Health Reports, Vol. LXXXIV (January, 1969), 59.

Harold Halpert argues that mental health education programs often have been based on a premise congruent with findings concerning mental health attitudes.[3]

Assuming that attitudes about mental illness are linked to the level of formal education and knowledge of psychiatric concepts, those who have planned such programs have stressed providing the public with the facts about mental illness. However, a 1960 report raised serious questions about the validity of this assumption. The survey, conducted by the Washington Public Opinion Laboratory, was designed to answer two questions: (1) Are the opinions that people have about mental illness related to the level of their knowledge of the technical vocabulary of psychiatry?[4]

Findings from 438 interviews of a sample population revealed that "opinions regarding the etiology and prevention of mental illness are only slightly, if at all, related to the level of formal education and only weakly related with knowledge of the technical vocabulary of psychiatry." The only strong relationship was between level of formal education and knowledge of the technical vocabulary of psychiatry.[5] Lemkau, in his survey, found a small but

---

[3]Halpert, "Surveys of Public Opinions and Attitudes About Mental Illness," p. 589.

[4]Ibid.

[5]Ibid., p. 590.

significant tendency for persons with more formal education to hold less derogatory attitudes toward the mentally ill.[6]

A broad survey of popular thinking about mental illness by the National Opinion Research Center (NORC) from the University of Chicago indicated that, in general, interesting differences in attitudes, revealed by the survey, were traceable to the exposure of information about mental illness. Its goals were to describe the characteristic ideas about mental illness that are current in our society and to explain the formation of these concepts.

The survey revealed the following: The views of the people who reported that they had a great amount of exposure to information about mental illness from various sources were more likely to approach professional views. The amount of formal education of the respondent was directly correlated with his knowledge about mental illness, and the number of information sources from which he derived that knowledge. At every educational level, however, people who derived their information from a variety of sources were more knowledgeable than their educational peers. High school graduates with high exposure were more apt to recognize mental illness than college graduates with low exposure.[7]

---

[6]Paul Lemkau, Social Psychiatry (New York: Grune and Stratton, 1968), p. 352.

[7]Halpert, "Surveys of Public Opinion and Attitudes About Mental Illness," p. 591.

NORC respondents who knew persons receiving psychiatric treatment tended to be more knowledgeable about mental illness. Those who knew noninstitutionalized psychiatric patients read and listened to more information about mental illness. If contact with patients receiving noninstitutionalized psychiatric care is correlated with knowledgeability, one may expect changes in attitudes as the number of community-based psychiatric treatment centers increase.[8]

The general impression conveyed by these surveys is that people are more knowledgeable about mental illness today than a decade ago, and there is a better understanding of mental illness and greater tolerance or acceptance of the mentally ill.

Dohrenwend and Chin-Shong[9] question whether there has been a gain over time in public knowledge of mental illness or whether the apparent historical shift is more of a superficial change in popular labeling of more types of deviant behavior of mental illness. There exists important differences in the way psychiatrists and the public view mental cases. Results indicated that, while there may be an increasing tendency for people to use the label "mentally

---

[8] Ibid.

[9] Bruce P. Dohrenwend and Edwin Chin-Shong, "Social Status and Attitudes Toward Psychological Disorder: The Problem of Tolerance of Deviance," American Sociological Review, XXXII (February, 1967), 423.

ill" in describing different types of deviant behavior, sharp differences in judgements of the seriousness of the problems remain. Whereas, psychiatrists' evaluations center on the amount of the individual's underlying psychopathology, the public tends to judge seriousness in terms of the overt threat to others.[10]

Lemkau and Crocetti[11] found that popular attitudes toward mental illness and the mentally ill are changing, although the present study, being among the most recent reflects only a slight change. They argue that, if a change in public opinion about mental illness and the mentally ill has occurred, then an important theoretical implication must be considered, namely a possible change in the perceptual context in which the public views mental illnesses and the mentally ill. A review of studies of opinions toward mental illness, by Bates,[12] from 1952 through 1962, revealed evidence of changing attitudes. Slight differences were found among respondents in different age and educational sub-groups.

---

[10] Ibid., p. 432.

[11] Paul V. Lemkau and Guido M. Crocetti, "An Urban Populations Opinions and Knowledge About Mental Illness," American Journal of Psychiatry, Vol. CXVIII (June, 1962), 698.

[12] Josephine Bates, "Attitudes Toward Mental Illness," Mental Hygiene, Vol. LII (January, 1968), 250.

Personal orientation to deviant behavior, extent of liberalism in one's general outlook, occupational frame of reference, social customs in one's own primary reference group, and the intrapsychic needs of the person are important. These factors appear to be important as increased knowledge in determining a person's behavior when directly confronted with his own or someone else's emotional difficulties. Hopefully, the proximity will lead to changes in the way people seek help for mental illness, and the changes may in turn lead to changed attitudes.

## Plan and Content of the Thesis

In the introductory chapter the problem of the investigation was set forth, the importance of the problem advanced, and a review of literature delineated.

Chapter II is concerned with the methodological procedures used in the study. In this chapter the following four major aspects of the thesis are elaborated: (1) a description of the samples used in the investigation; (2) an explanation of selected sociological variables; (3) a brief explanation of the knowledgeability score; and (4) a statement of the ten substantive hypotheses used in the investigation.

Chapter III constitutes the core of the investigation. It is considered central to the investigation because it deals with the statistical tests of the twenty

statistically significant opinion items and the ten hypotheses developed to test the relationship between knowledgeability and social variables.

Chapter IV is the concluding chapter. This chapter consists of a brief summary of all the chapters that preceded it. The primary focus of this chapter, is upon the findings of this study and the implications they hold for the problem. The thesis is concluded with a brief discussion of the contributions of the investigation and suggestions for future research.

## Summary

In this chapter the major problem of the thesis was introduced. The problem was developed through a critical analysis of existing literature concerning the empirical relationship between social variables and knowledge about mental illness, and conceptions of mental illness in relation to attitude change. It was stressed that despite the considerable importance of this problem, there has been little systematic research directed toward the finding of relationships between knowledge about mental illness and related sociological variables. The importance of the investigation was further elaborated in terms of relevant theoretical literature. The major thesis of the investigation will be further elaborated in the following chapter, where the samples, variables, and major hypotheses are set forth.

# CHAPTER II

# METHODOLOGY

## Contents of the Chapter

In this chapter the methodological procedures used in the investigation are presented. This presentation consists of four main parts. The first part gives a brief description of the samples used in the investigation; the second part gives selected social characteristics; the third part provides an explanation of the knowledgeability score; the fourth part of the chapter provides a statement of the substantive hypotheses. The following chapter includes the analysis and findings of the investigation.

## The Samples

The instrument for data collection used in this investigation is primarily based on Jum C. Nunnally's (1961) work.[13] (See Appendix A for questionnaire used in the investigation.) The instrument consists of fifty-six opinion items, with provision for one of seven responses, from "strongly agree" to "strongly disagree."

---

[13]Jum C. Nunnally, Popular Conceptions of Mental Health (New York: Holt, Rinehart and Winston, 1961).

Sample 1962 (see Appendix C for demographic data) consists of students enrolled in selected Michigan State University sociology courses during the 1962 summer term (N=215). Summer school students were used in order to get a broader range of subject characteristics than would have been obtained during the regular academic year. These data are analyzed in the report by Olmsted and Ordway.[14]

Sample 1971 (see Appendix C for demographic data) consists of students enrolled in the same sociology courses at Michigan State University during the 1971 summer session (N=319).

Although the students in the samples cannot be said to represent strictly a random sample of all students in sociology courses at Michigan State University at each point in time, the courses were selected to represent both introductory and more advanced levels, and there seems to be no reason to think that the subjects are unrepresentative of all such students with respect to mental health opinions. To what extent the opinions of students in the samples would differ from those of a random sample of all MSU students at each point in time is unknown; it would seem likely that such differences would be considerable.

---

[14]Donald W. Olmsted and Robert K. Ordway, "Concepts of Mental Health: A Pilot Analysis," Final Report, Project M-5880(A), NIMH (East Lansing, Mich.: Michigan State University, Department of Sociology, June, 1963).

The 1962 and 1971 samples are comparable in the sense that the respondents constituted approximately 90 per cent of the students enrolled in the "same" courses. Similarities and differences in opinions between the 1962 and 1971 data can thus be said to represent stability and change in the opinions of "MSU summer sociology students" over the 1962-1971 interval.

## The Variables

In this investigation, ten sociological variables were used. The social variables were used in order to determine whether social characteristics of respondents were related to knowledgeability. For example:

1. Is knowledgeability related to the different age levels of the respondents? That is, will older respondents be more or less knowledgeable than younger respondents?

2. Is knowledgeability related to the sex (male-female) of the respondents?

3. Is knowledgeability related to the type of community the respondent resided during most of the first eighteen years of his life?
   (a) on a farm;
   (b) in the open countryside, but not on a farm;
   (c) town or city.

4. Is knowledgeability related to whether any good firends of the respondent have ever been mentally ill? And finally,

5. Is knowledgeability related to whether any member of the respondent's family has ever been mentally ill?

It is assumed that those with direct contact with the mental patients will tend to be more knowledgeable about mental illness and generally more understanding toward the mentally ill.

The above ten variables were statistically analyzed in relation to the four different levels of the knowledgeability score (see Appendix E for the relationship between knowledgeability score and the ten social variables).

## The Knowledgeability Score

The fact that responses were available from a set of 176 mental health experts; 25 of the same opinion items used in this research[15] provide the basis for the development of a "knowledgeability score" for each respondent in this study. From the 25 opinion items, the 10 items with the greatest amount of consensus among the professionals were chosen. Examination of the response distribution to the items by the professionals indicated that to

---

[15]Nunnally, Popular Conceptions of Mental Health, pp. 32-34.

mechanically take the size of the standard deviation as an indication of consensus would often be misleading. For example, the magnitude of the standard deviation of the responses does not indicate whether the distribution would resemble a J curve toward either agree or disagree, or whether the most frequent responses would be in the neutral response category (see Appendix I for standard deviations for the 56 opinion items). Therefore, a measure of consensus was derived by eliminating the opinion items with a high number of "4" or "neutral" responses and by choosing the highest percentages of expert responses in 2 adjacent categories falling toward either end of the "neutral" point on a scale ranging from 1-7. (1 on the scale indicates "disagree" with the opinion, and 7 indicates "agreement" with the opinion). The percentages of responses in 2 adjacent categories ranged from 59-95 (refer to Appendix B for opinion items with greatest consensus among the professionals).

We thus selected the 10 items on which there was the greatest consensus by the experts as to the appropriate response. Such responses are viewed as "correct" by professional consensus. This response was then viewed as a response indicating knowledgeability by the student in the sample concerning the item. If the response of one of the students in our data was "correct" (the same as that of the experts) he received a score of 5 for that item; if his

response was one category away from the 2 "officially correct" response categories, he received a score of 4; and so on down to a score of 0. For example, supposing that categories 6 and 7 ("Agree") were the "correct" answers by professional consensus; then the score received by an individual for his response on that item would be:

| Response Category: | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Score On "Agree" Item: | 0 | 1 | 2 | 3 | 4 | 5 | 5 |

The maximum score obtainable by an individual for the 10 items was 50; the minimum score was 0. A low score indicates relatively low accord with the experts' responses; a high score indicates relatively high accord with the experts' responses. Accord with expert opinion is thus the operational measure of knowledgeability.

For data analysis, the knowledgeability scores were divided into the following four categories on the basis of the empirical distribution of scores: (Mean scores for the two samples were very similar: 43.34 for 1962 and 42.80 for 1971).

| Levels of Knowledgeability | Score |
|---|---|
| Very Low | 28-38 |
| Low | 39-42 |
| High | 43-46 |
| Very High | 47-50 |

The Substantive and Operational Hypotheses

This portion of the investigation is concerned with the development of specific hypotheses dealing with the relationship between knowledgeability and the ten social variables. Two types of hypotheses are used for the statistical analysis. The "substantive" and "operational" hypotheses. The substantive hypotheses are concerned with the terms "knowledgeable" and "knowledgeability," whereas the operational hypotheses are concerned with the "knowledgeability score."

Jum C. Nunnally has done a considerable amount of work in this specific area. Nunnally has discovered that sub-groups in the population have slightly different attitudes toward the mentally ill. He has sought to distinguish the differences between specific social variables in relation to attitudes toward mental illness. Freeman[16] has found that attitudes toward mental illness have been discovered to be associated with various sociological variables.

Although Nunnally has made a distinction between the kind of information held by old as compared with young people, and by more educated as compared with less educated people, the differences in attitudes of these and other

---

[16]H. E. Freeman, "Attitudes Toward Mental Illness Among Relatives of Former Patients," American Sociological Review, XXVI (1961), 59.

sub-groups are relatively small. He has found a small, but statistically significant tendency for more educated people to hold less derogatory attitudes toward mental illness and the mentally ill.

None of the other demographic variables showed more than minor differences. He found some significant differences (by t-test) between the mean responses of women and men. Although the differences formed no clearly interpretable pattern, and differences in one study sometimes were not found in other studies. Nunnally concluded that sub-groups in the population do not differ substantially in their attitudes toward mental illness and the mentally ill.[17]

Resulting from a critical analysis of literature, the following hypotheses were constructed:

Hypothesis 1: Older respondents will be more knowledgeable about mental illness than younger respondents.

Hypothesis 2: There is no relationship between sex and knowledgeability.

Hypothesis 3: Graduate students will be more knowledgeable than undergraduate students.

Hypothesis 4: Education majors will be more knowledgeable about mental illness than all other majors.

---

[17]Nunnally, Popular Conceptions of Mental Health, pp. 32-34.

Hypothesis 5: There is no relationship between marital status and knowledgeability.

Hypothesis 6: There is no relationship between knowledgeability and community type.

Hypothesis 7: There is no relationship between knowledgeability and community size.

Hypothesis 8: There is no relationship between knowledgeability and suburban residence.

Hypothesis 9: Persons indicating friends mentally ill will be more knowledgeable than persons indicating no experience with friends mentally ill.

Hypothesis 10: Persons indicating family members mentally ill will be more knowledgeable than persons indicating no experience with family members mentally ill.

The above hypotheses were employed in an effort to investigate the relationship between knowledgeability and specific social variables.

## Summary

The primary concern of this chapter was the presentation of the methodological procedures employed in the investigation. Briefly, it consisted of (1) a description of the samples used in the investigation; (2) selected social variables were described; (3) an explanation of how the knowledgeability score was derived; and (4) a statement of the substantive hypotheses, employed to test the relationship between knowledgeability and social variables. In the following chapter, the results of the investigation are reported.

# CHAPTER III

# RESULTS

## Contents of the Chapter

In previous chapters the problem and methodology of the investigation were advanced. This chapter contains analysis and findings. This chapter is divided into two main parts designed to answer the two specific questions of this investigation, advanced earlier in Chapter I. Part I of the chapter provides statistical data and tests designed in an effort to determine whether a change has taken place in mental health attitudes in the last decade. Part II of the chapter will be primarily concerned with the restating of the ten hypotheses advanced earlier in the thesis, and the presenting of data and tests in support of hypotheses in an effort to determine whether knowledge about mental illness is influenced by social variables: Each analysis is concluded with a summary chart and a brief summary statement of research findings.

## PART I

### Tests of Opinion Items

Question 1: What changes have taken place in mental health attitudes in the last decade?

(a) In what direction and to what extent has this change evolved?

In order to answer this question, the mean responses to fifty-six opinion items for 1962 and 1971 were statistically tested for significance (see Appendix F for mean distribution of responses for fifty-six opinion items, 1962 and 1971). Hypotheses were not employed in the analysis of Part I.

Graphic presentations (1-20) show the statistically significantly different opinion items, percentage distribution, frequency distribution, and the mean response category. (The small arrow denotes the direction and degree of the differences in attitude at Time II '1971.' The broken line indicates the mean response at Time I '1962' and 1971.)

The fifty-six opinion items were divided into nine categories of similar items as shown in Table 1 and Appendix H. Statistically significant differences in attitude between 1962 and 1971 were not related to the various categories of items. The division of categories, based on the content of the item, was to determine if changes in attitude were related to certain categories of items of the same kind. No specific generalizations could be made based on the specific categories of items. Analysis revealed that certain categories contained more statistically significant items than others although no

TABLE 1.--Categories of opinion items, and statistical significance.[a]

| | Category | No. of Items | No. of Items with Statistical Significance[b] |
|---|---|---|---|
| I. | Causal | 12 | 3 |
| II. | Recovery (Including Cure, Prognosis) | 9 | 5 |
| III. | Seriousness | 6 | 3 |
| IV. | Role of Psychiatrist | 4 | 1 |
| V. | Age: Children | 7 | 3 |
| VI. | Age: Older | 3 | 1 |
| VII. | Men - Women | 4 | 0 |
| VIII. | Symptoms | 6 | 1 |
| IX. | Miscellaneous | 5 | 3 |
| | Total | 56 | 20 |

[a]Contents of items, mean values for 1962 and 1971, and values of t-statistic shown in Appendix H.

[b]T-test, difference between means of 1962 sample and 1971 sample ($P<.05$ and $P<.01$).

interpretive pattern was found among the various categories. Significantly different opinion items were not evenly distributed among the various categories.

I. Causal

Item 1: "The best way to mental health is by avoiding morbid thoughts." Although disagreement with this item is prevalent at both time periods, graph 1 shows that this item was disagreed with more strongly at Time II. Item 17: "People who keep themselves occupied with pleasant thoughts seldom become mentally ill." Considerable disagreement is present at Time I and at Time II, although Time II mental attitudes reveal an even greater amount of disagreement with this item, as shown in graph 2. Item 20: "People cannot maintain good mental health without the support of strong persons in their environment." Inspection of graph 3 indicates that respondents at Time II tend to disagree with this item to a lesser extent than respondents did at Time I.

II. Recovery (Cure, Prognosis)

Item 9: "Mental patients usually made good adjustment to society when they are released." Data relevant to this item appear in graph 4. Inspection shows that agreement with this item is centered around the "neutral" or "4" point on the scale. There appears to be slightly less agreement with this item in 1971. Item 18: "Few people

who enter mental hospitals ever leave." Examination of graph 5 shows that at each time period this item was strongly disagreed with, although in 1971 respondents disagreed with this item less strongly. Item 21: "Will power alone will not cure mental disorders." Graph 6 reveals that at each time period this item was strongly agreed with, although at Time II this item was agreed with less strongly. Item 40: "There is not much that can be done for a person who develops a mental disorder." Data relevant to this item appear in graph 7. Analysis reveals that this statement was strongly disagreed with at both time periods. Extreme disagreement with this item denotes optimism for the future of mental disorders. Whereas, at Time I respondents disagreed with this item very strongly, at Time II respondents disagreed to a slightly lesser extent. Therefore, we can generalize that respondents at Time II are less optimistic about the future of mental disorders. Item 49: "Many of the people who go to mental hospitals are able to return to work in society again." Inspection of graph 8 reveals that at each time period, respondents agreed very strongly with this item, although agreed with less often at Time II.

## III. Seriousness

Item 2: "Mental disorder is one of the most damaging illnesses that a person can have." Observation

shows considerable agreement with this item at both time periods. This statement is agreed with less strongly in 1971. Item 29: "Mental health is one of the most important national problems." Inspection of graph 10 shows that this opinion item is one of the most agreed with of the twenty significantly different items. At Time II there appears to be a considerable change in attitude. Time II respondents agreed less often with this item. Such a shift in attitude may be attributable to a shift in awareness of recently emerging national problems that were not so prevalent in 1962. Item 55: "People who go from doctor to doctor with many complaints know that there is nothing really wrong with them." Examination of graph 11 reveals a considerable amount of disagreement with this item at both time periods, although 1971 respondents disagreed with this item less often.

IV. Role of Psychiatrist

Item 33: "The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind." Graph 12 shows that this item was disagreed with highly at both time periods, although disagreed with more often in 1971.

V. Age: Children

Item 25: "Disappointments affect children as much as they do adults." Examination of graph 13 shows that

this item was strongly agreed with at both time periods, and agreed with to an even greater extent at Time II. Item 51: "Disappointments do not affect children as much as they do adults." Graph 14 reveals considerable disagreement with this item at both time periods. As revealed, respondents disagreed with this item more often at Time II. The reversed order of items 25 and 51, respectively, demonstrates a parallel shift in responses in a most appropriate manner. This response type indicates that at each time period the items were read carefully and thoroughly, demonstrating a possible use of good opinion items. The reverse ordering of these two items, reflecting a parallel shift in the desired manner, may be viewed as a reliability check in responses. Item 47: "Early training will not make the child's brain grow faster." Graph 15 reveals a moderate amount of agreement with this item at each time period, although respondents agreed less often at Time II. Responses to this item shifted more toward the "neutral" point on the scale at Time II. Such a shift in attitude may not be attributable to a direct change in attitude as much as in the manner of interpretation. Examination of this item reveals slight discrepancy as to exactly what the statement means to the respondent.

VI: Age: Older

Item 11: "Early adulthood is more of a danger period for mental illness than later years." Inspection

of graph 16 reveals that responses to this item are centered around the "neutral" point, although shifting toward more agreement in 1971.

VII. Men--Women

This category is concerned with comparisons made with the emotional problems of men and women. Contrary to expectation, of the four items in this category none were statistically significant.

VIII. Symptoms

Item 45: "Most people can recognize the type of person who is likely to have a nervous breakdown." Graph 17 shows considerable disagreement with this item at both time periods, although at Time II respondents tended to disagree less strongly with this item.

IX. Miscellaneous

Items found in this category include those items we found relatively difficult to classify.

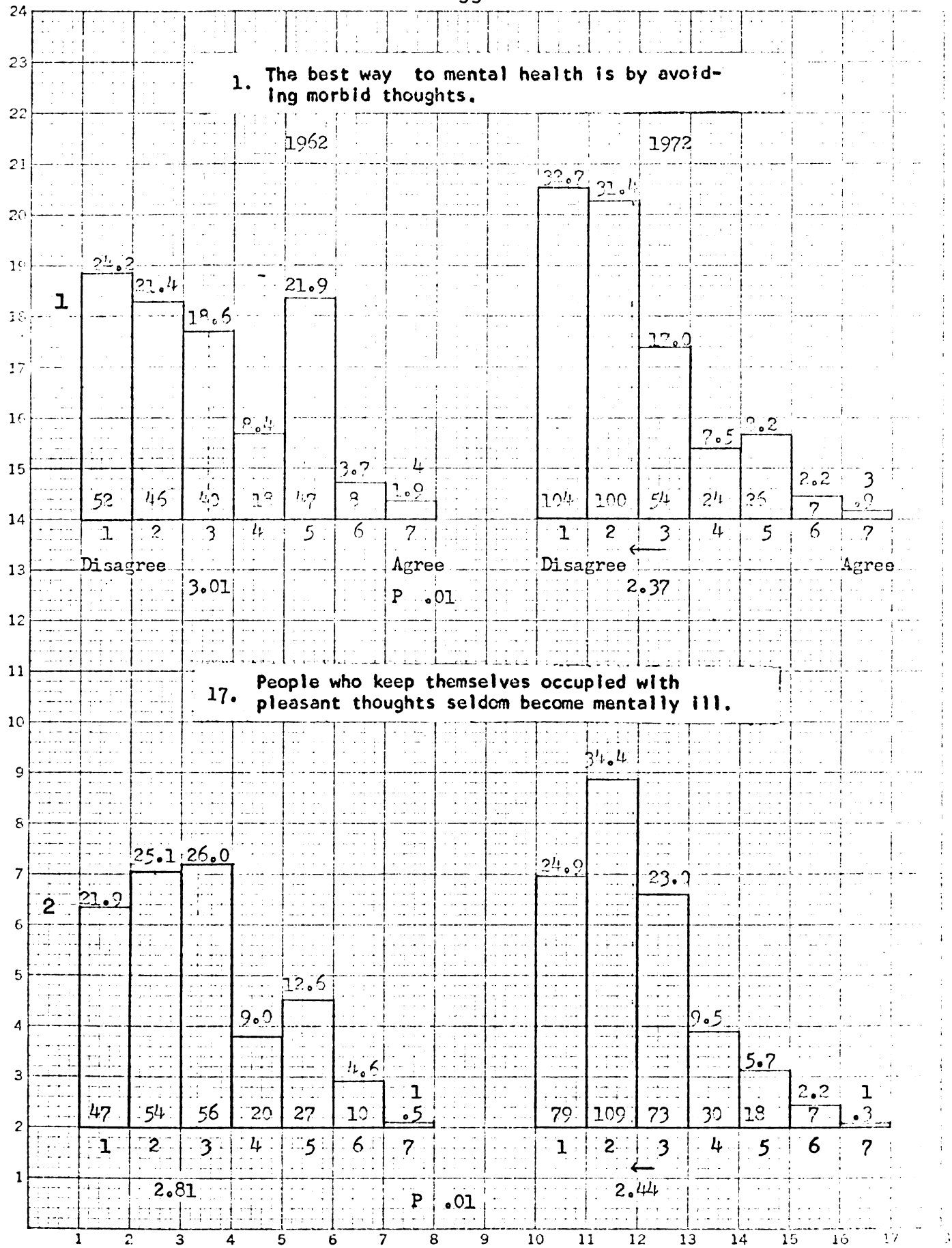
Item 42: "Feeble-minded children are less obedient than normal children." This item received considerable disagreement at each time period, although disagreed with less often in 1971, as revealed in graph 18. Item 43: "Most people who 'go crazy' try to kill themselves." Respondents strongly disagreed with this item at each time period, as revealed in graph 19. Respondents at Time II

disagreed less often than did respondents at Time I. Item 48: "Most suicides occur because of rejection in love." Interpretation of this item, as seen in graph 20, reveals a considerable amount of disagreement, although this item is disagreed with less often in 1971. Mean responses to this item were centered around the "neutral" point on the scale. This could possibly denote conceptual ambiguity, resulting from the perceptual context in which the present generation views the term "love."

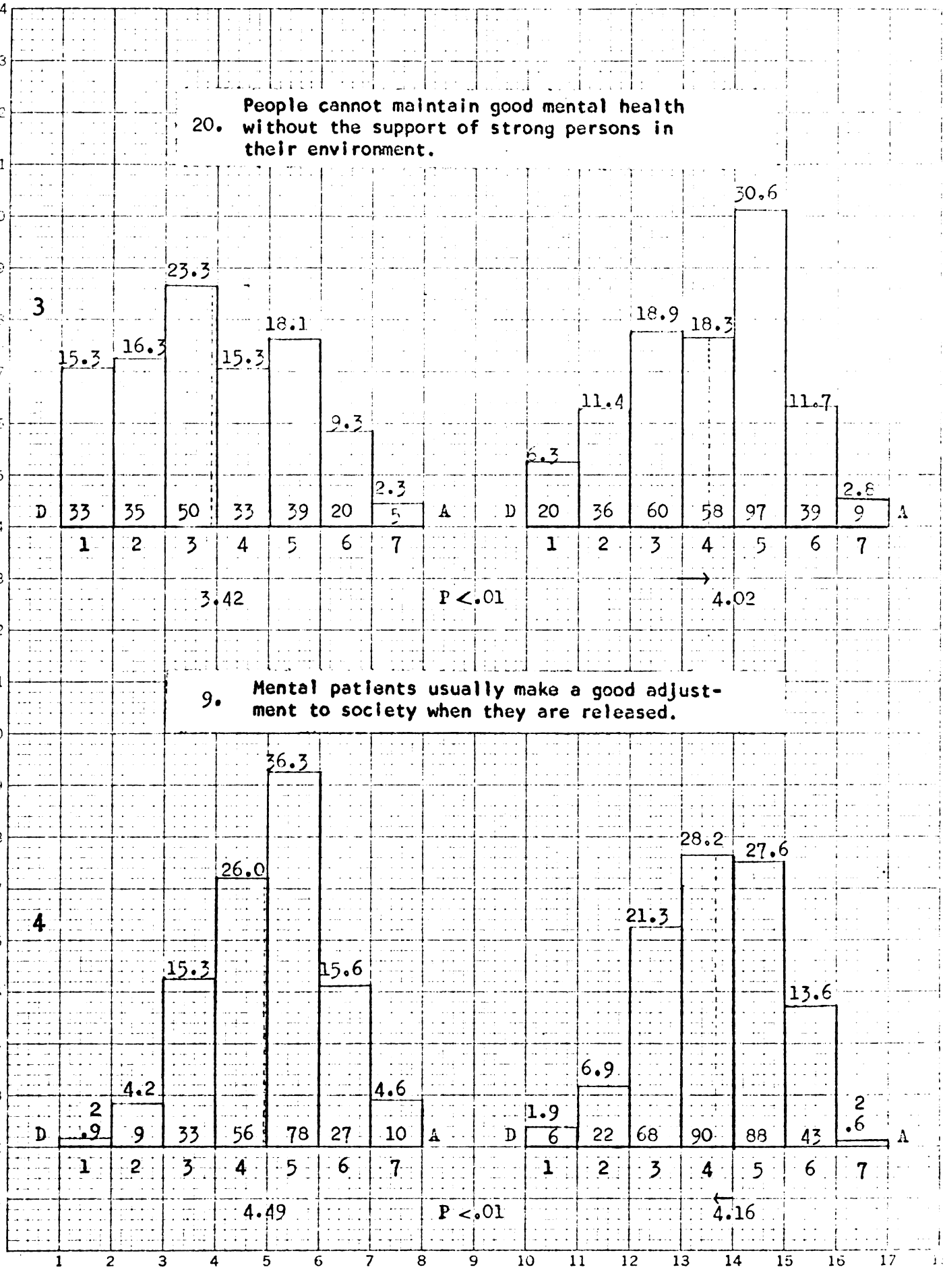
This portion of the analysis proceeds with graphic presentations of the significantly different opinion items, and is concluded with a summary chart (Table 2) of significantly different opinion items and a brief summary of this part of the analysis.

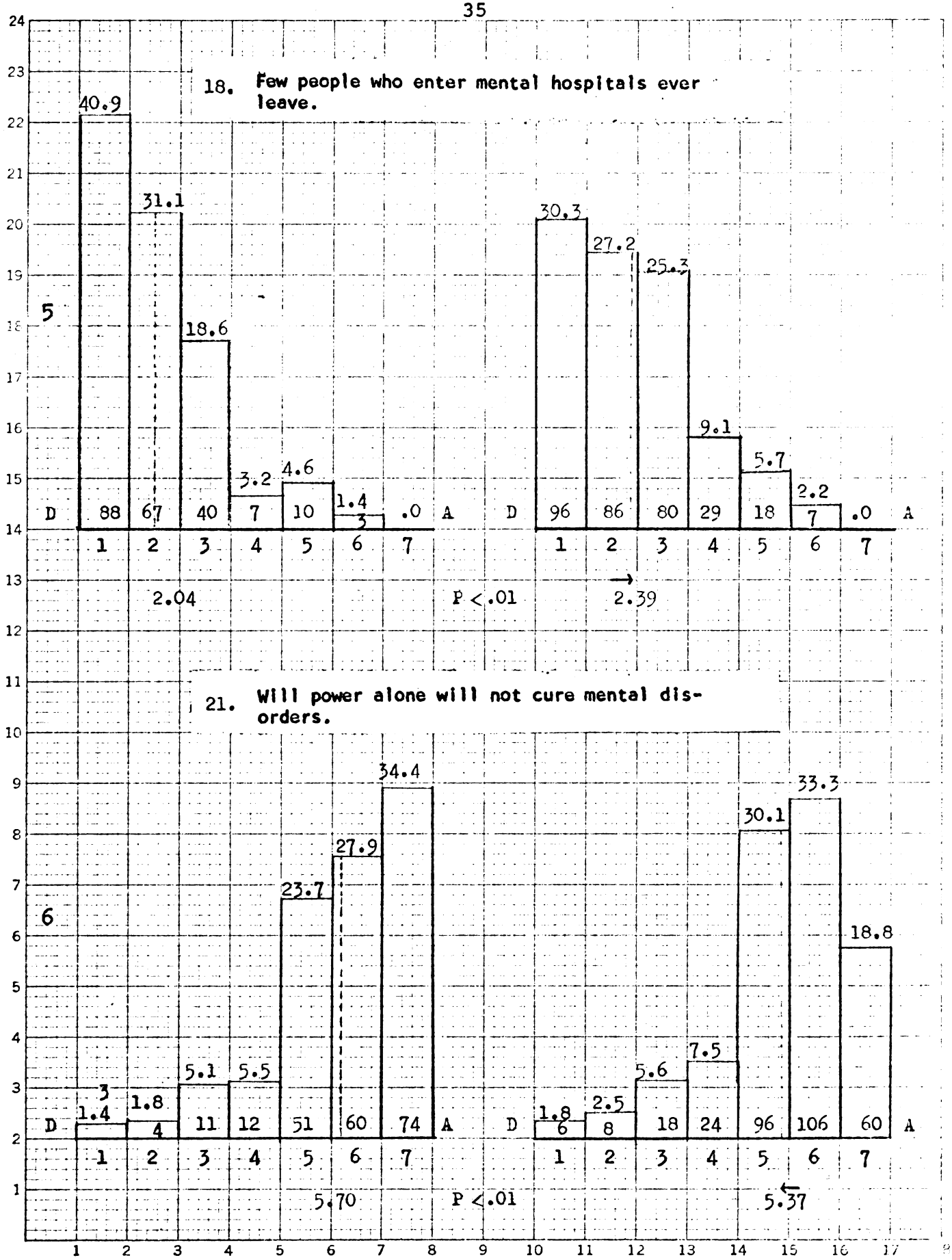
## Summary

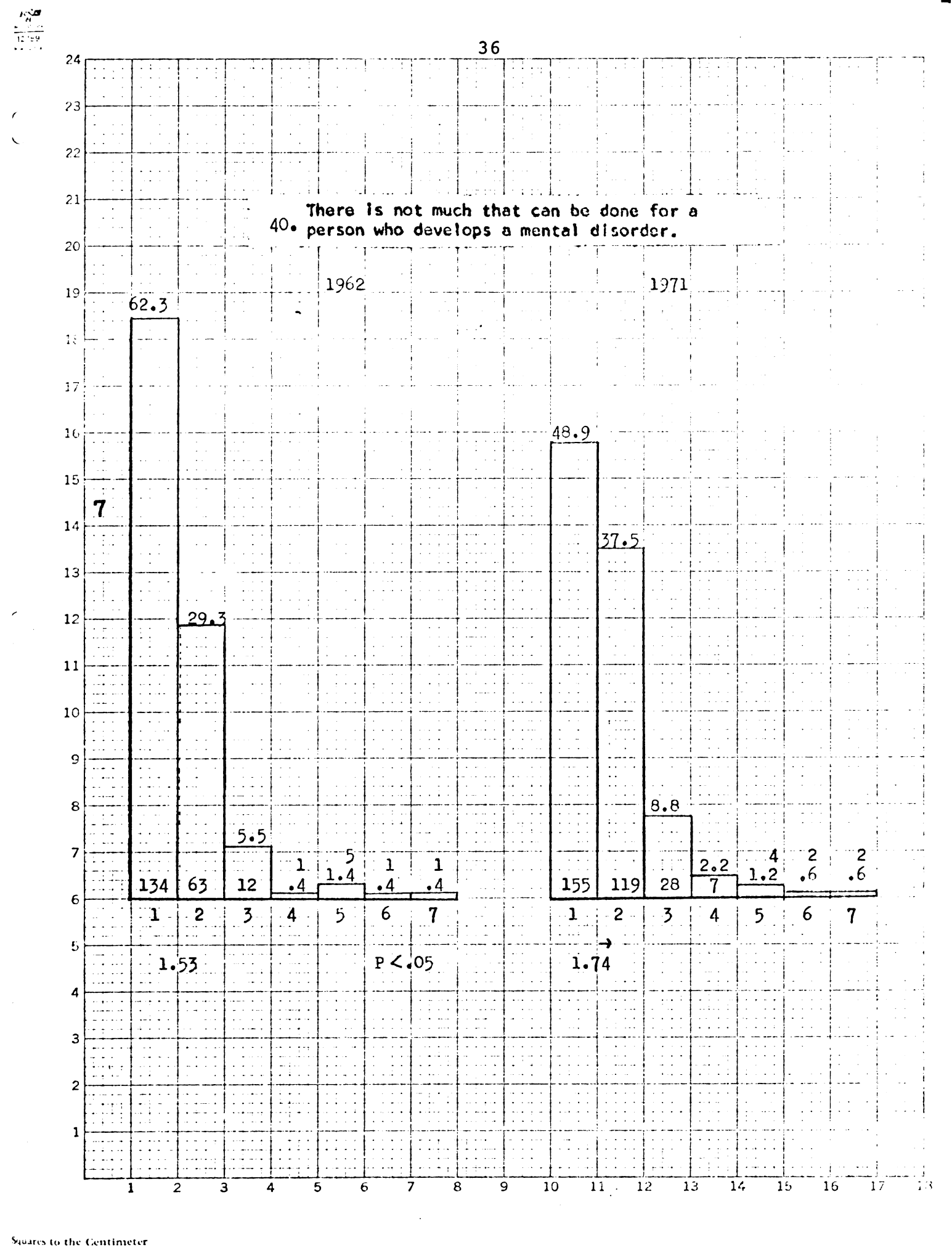
Part I of the investigation has provided statistical data and tests relative to question 1 of this investigation. Results of this portion of the analysis show that of the fifty-six opinion items used in this analysis, twenty were statistically significantly different, although there did not prevail a high degree of significance (refer to Appendix D for plotting of means obtained from fifty-six opinion items, 1962 and 1971). Tests revealed that the significant items varied in degree and in direction of change (see Appendix G for plotting of means obtained from the twenty

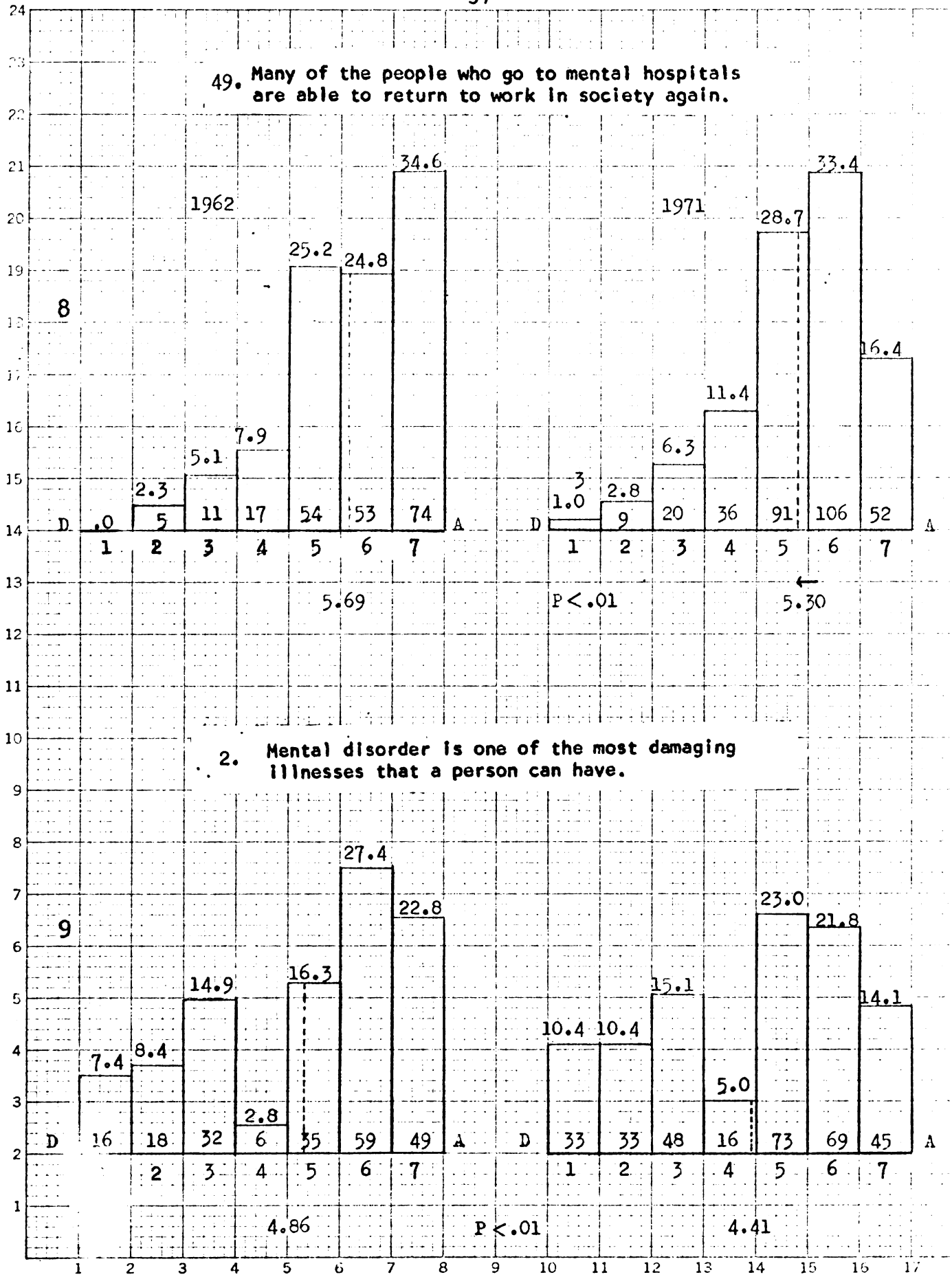


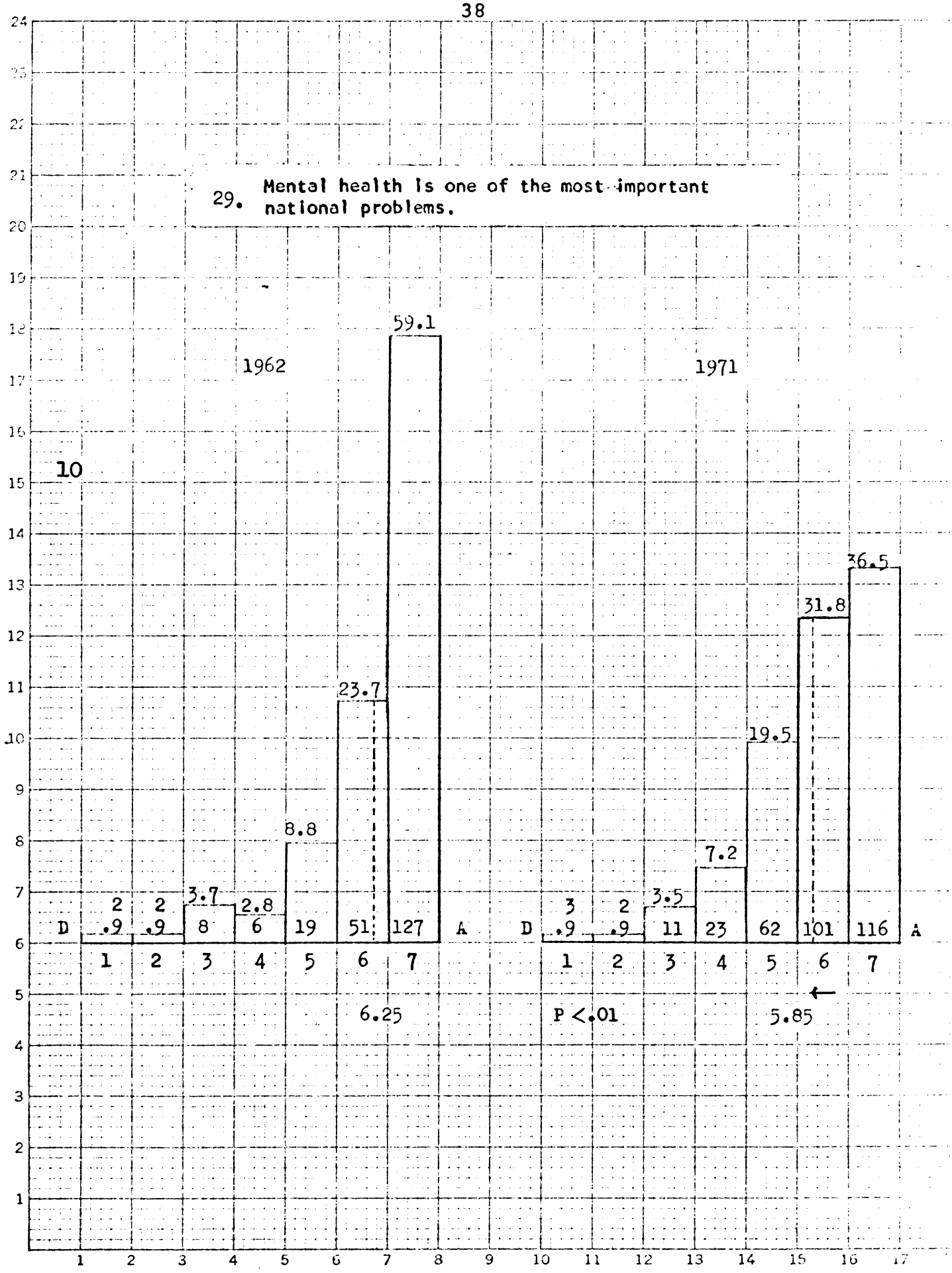

squares to the Centimeter

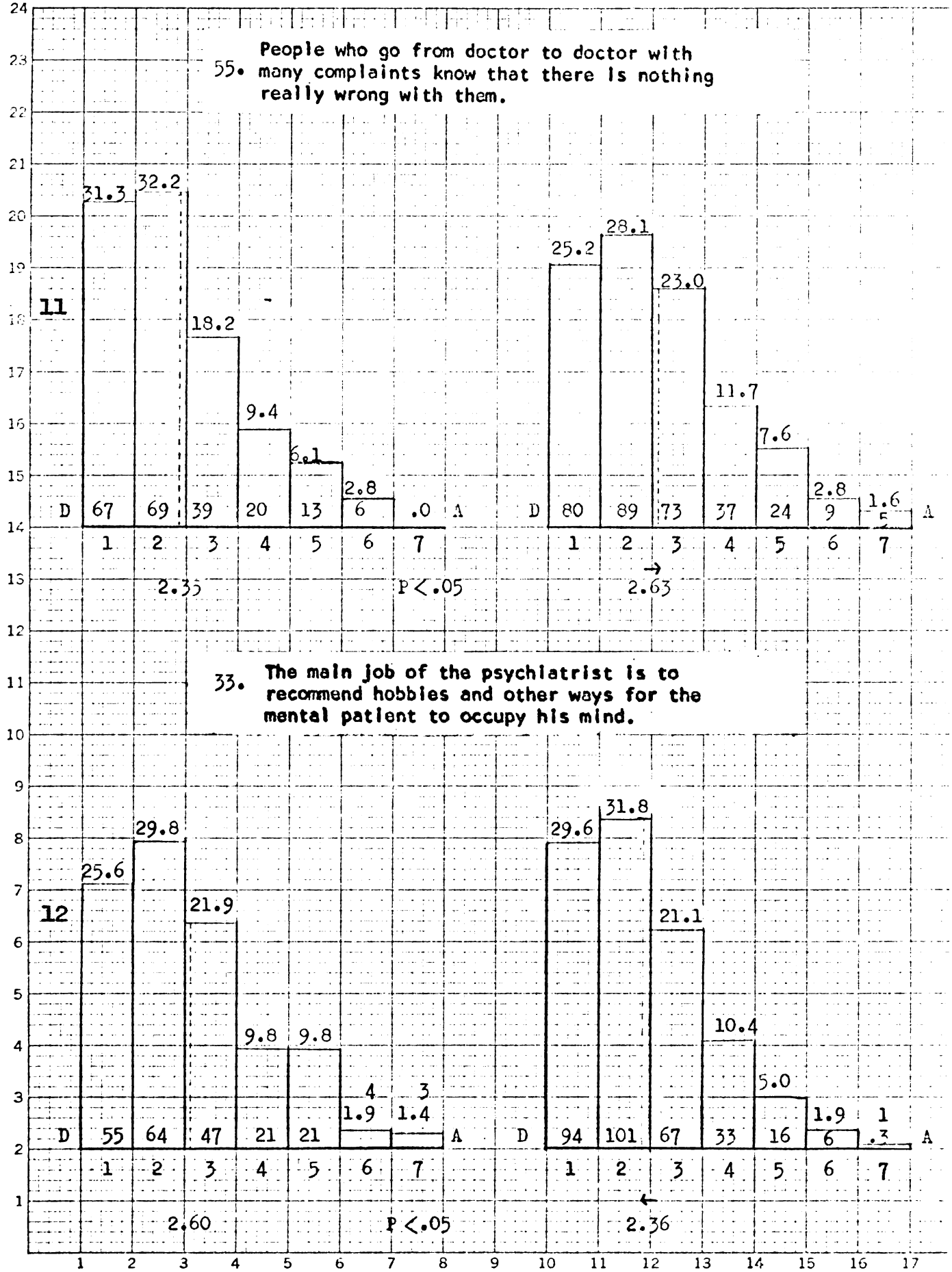

20. People cannot maintain good mental health without the support of strong persons in their environment.
3
15.3
16.3
23.3
15.3
18.1
9.3
2.3
6.3
11.4
18.9
18.3
30.6
11.7
2.8
D 33 35 50 33 39 20 5 A D 20 36 60 58 97 39 9 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
3.42
P <.01
4.02
9. Mental patients usually make a good adjustment to society when they are released.
4
2.9
4.2
15.3
26.0
36.3
15.6
4.6
1.9
6.9
21.3
28.2
27.6
13.6
2.6
D 2 9 33 56 78 27 10 A D 6 22 68 90 88 43 2 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
4.49
P <.01
4.16

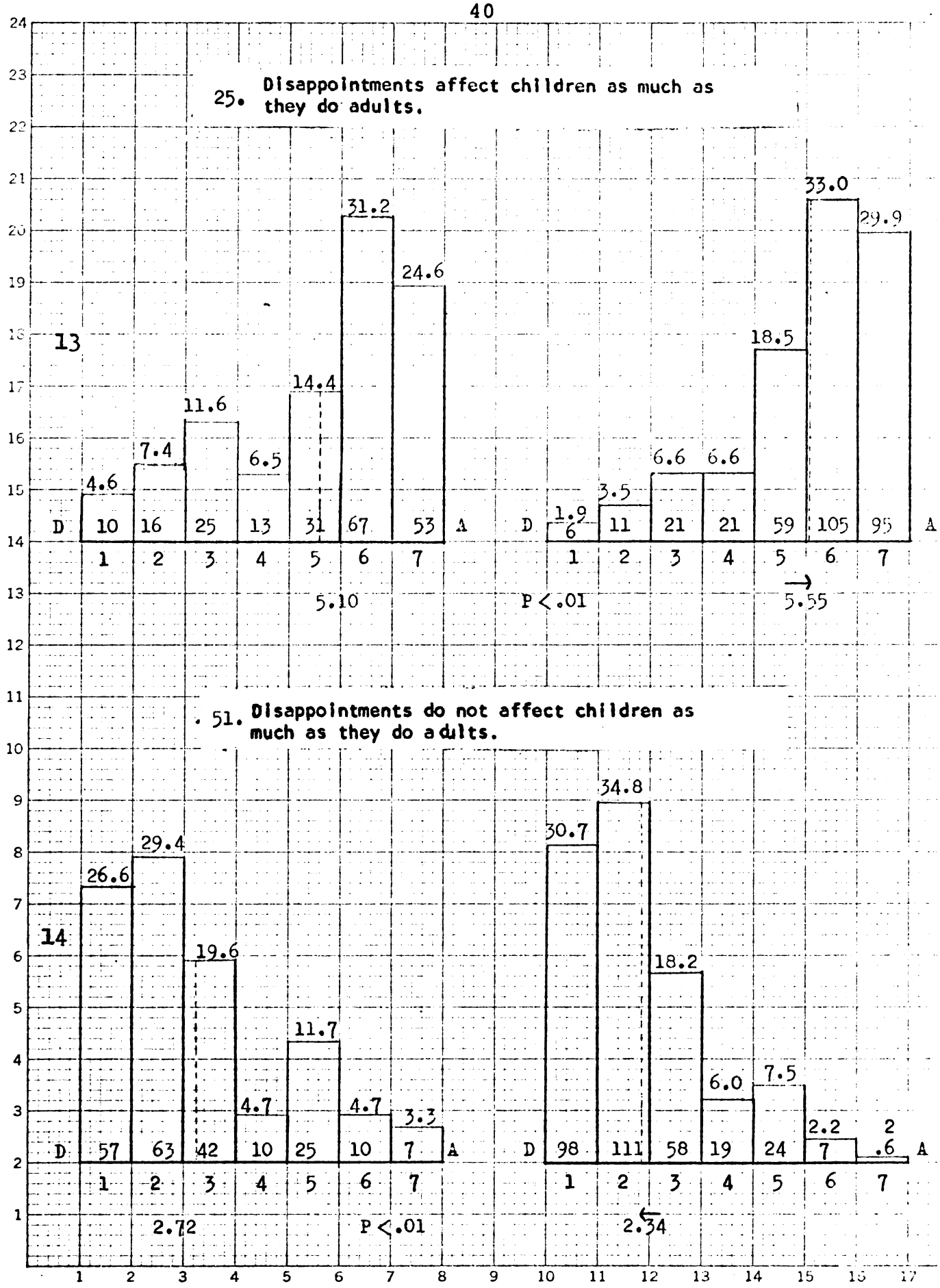

18. Few people who enter mental hospitals ever leave.
40.9
31.1
18.6
3.2
4.6
1.4
.0
30.3
27.2
25.3
9.1
5.7
2.2
.0
5
D 88 67 40 7 10 3 A D 96 86 80 29 18 7 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
2.04
P < .01
2.39
21. Will power alone will not cure mental disorders.
34.4
27.9
23.7
5.1
5.5
1.8
1.4
3
5.6
7.5
2.5
1.8
30.1
33.3
18.8
6
D 3 4 11 12 51 60 74 A D 6 8 18 24 96 106 60 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
5.70
P < .01
5.37


40. There is not much that can be done for a person who develops a mental disorder.
1962
1971
62.3
29.3
5.5
1
.4
5
1.4
1
.4
1
.4
48.9
37.5
8.8
2.2
7
4
1.2
2
.6
2
.6
134
63
12
155
119
28
1
2
3
4
5
6
7
1.53
P < .05
1.74
7

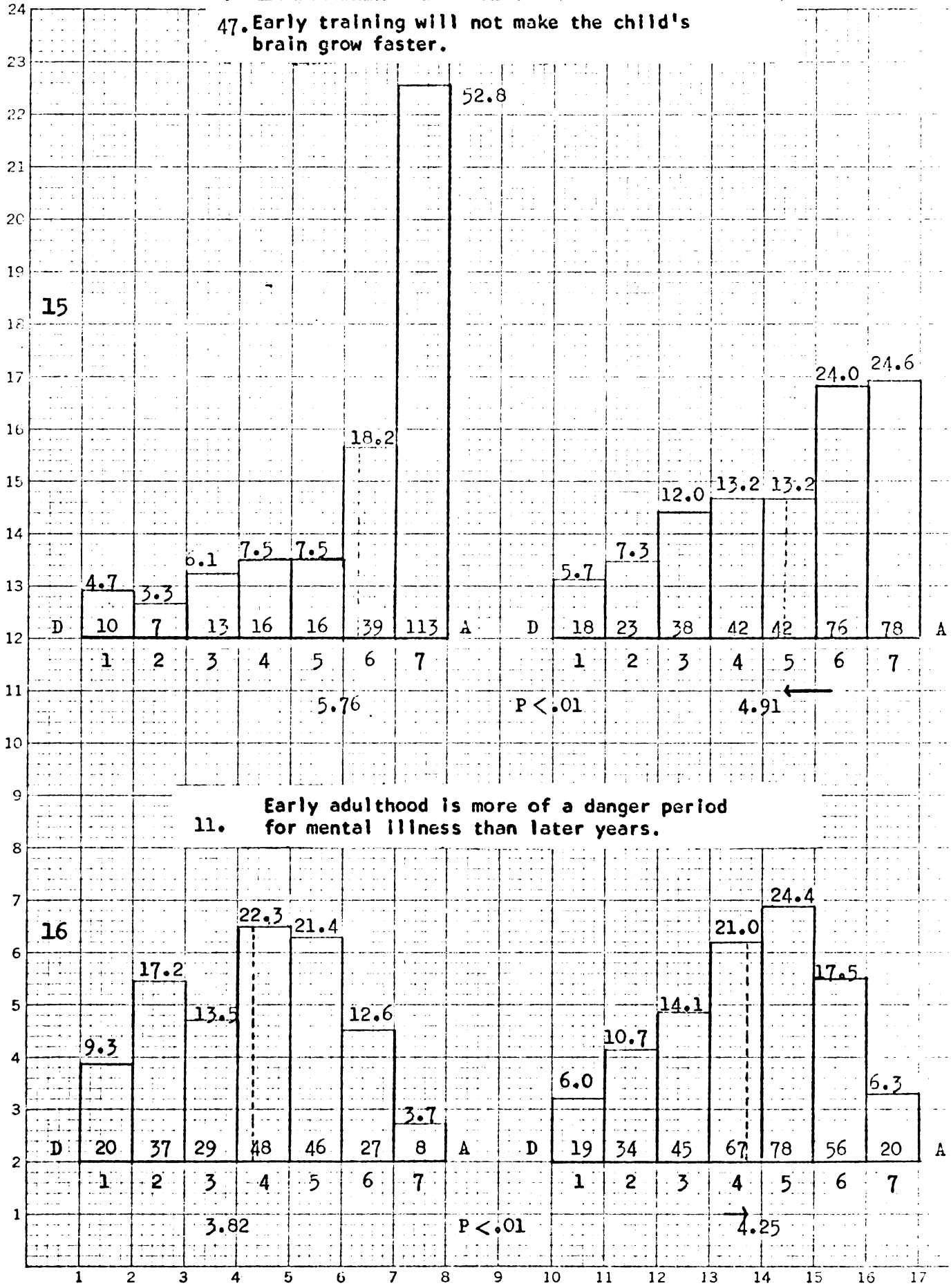

49. Many of the people who go to mental hospitals are able to return to work in society again.
8
D
A
1962
1971
.0
2.3
5.1
7.9
25.2
24.8
34.6
1.0
2.8
6.3
11.4
28.7
33.4
16.4
5
11
17
54
53
74
3
9
20
36
91
106
52
1 2 3 4 5 6 7
5.69
P < .01
5.30
2. Mental disorder is one of the most damaging illnesses that a person can have.
9
7.4
8.4
14.9
2.8
16.3
27.4
22.8
10.4
10.4
15.1
5.0
23.0
21.8
14.1
16
18
32
6
35
59
49
33
33
48
16
73
69
45
4.86
P < .01
4.41

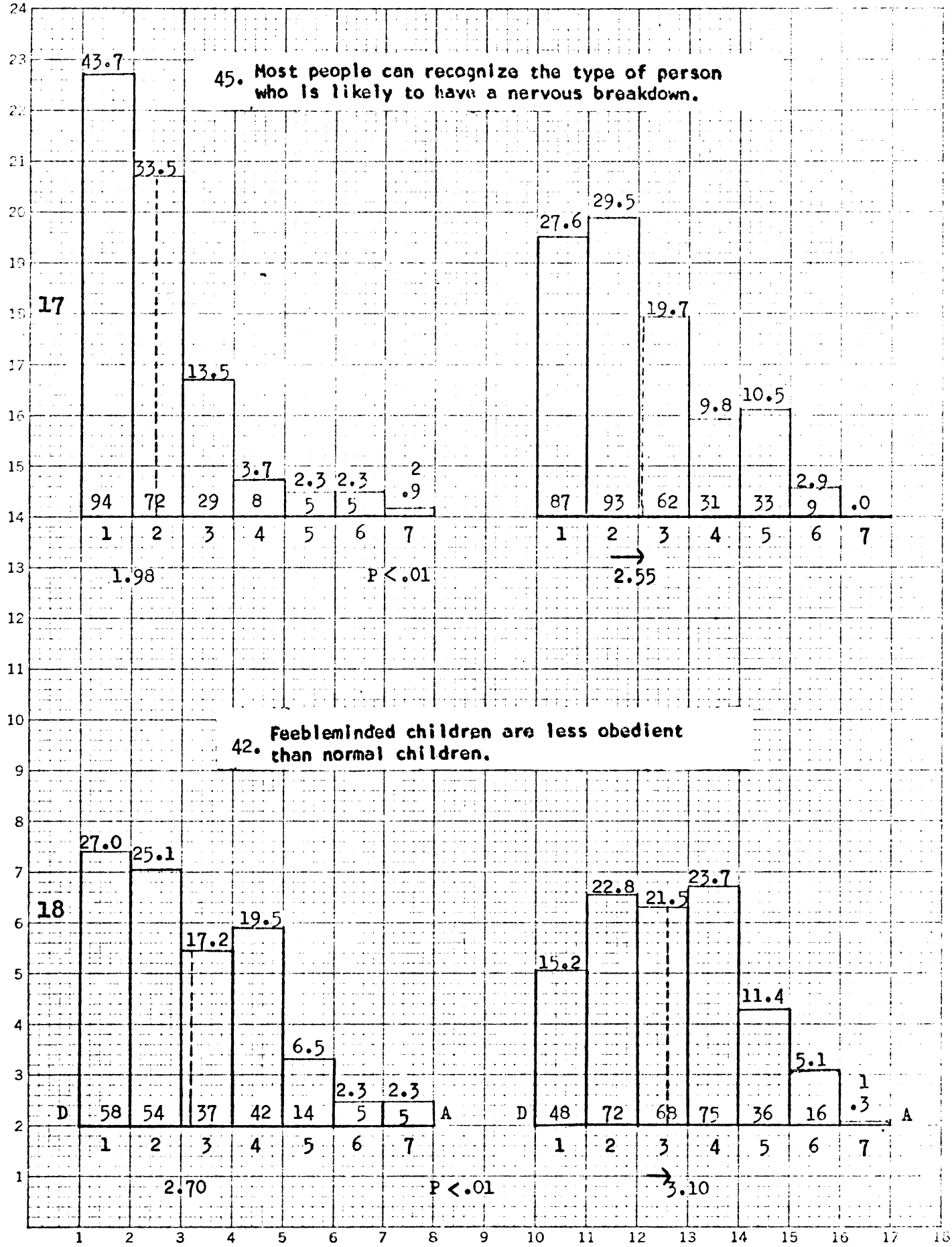

29. Mental health is one of the most important national problems.
1962
1971
10
59.1
23.7
8.8
3.7
2.8
2
2
36.5
31.8
19.5
7.2
3.5
3
2
D
.9
.9
8
6
19
51
127
A
D
.9
.9
11
23
62
101
116
A
1
2
3
4
5
6
7
1
2
3
4
5
6
7
6.25
P < .01
5.85
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17


55. People who go from doctor to doctor with many complaints know that there is nothing really wrong with them.
11
31.3
32.2
18.2
9.4
6.1
2.8
25.2
28.1
23.0
11.7
7.6
2.8
1.6
D 67 69 39 20 13 6 .0 A
D 80 89 73 37 24 9 5 A
1 2 3 4 5 6 7
1 2 3 4 5 6 7
2.35
P < .05
2.63
33. The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind.
12
25.6
29.8
21.9
9.8
9.8
4
1.9
3
1.4
29.6
31.8
21.1
10.4
5.0
1.9
1
.3
D 55 64 47 21 21 A
D 94 101 67 33 16 6 A
1 2 3 4 5 6 7
1 2 3 4 5 6 7
2.60
P < .05
2.36




Squares to the Centimeter


47. Early training will not make the child's brain grow faster.
15
4.7
3.3
6.1
7.5
7.5
18.2
52.8
5.7
7.3
12.0
13.2
13.2
24.0
24.6
D 10 7 13 16 16 39 113 A D 18 23 38 42 42 76 78 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
5.76
P < .01
4.91
11. Early adulthood is more of a danger period for mental illness than later years.
16
9.3
17.2
13.5
22.3
21.4
12.6
3.7
6.0
10.7
14.1
21.0
24.4
17.5
6.3
D 20 37 29 48 46 27 8 A D 19 34 45 67 78 56 20 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
3.82
P < .01
4.25


45. Most people can recognize the type of person who is likely to have a nervous breakdown.
17
43.7
33.5
13.5
3.7
2.3
2.3
2
.9
27.6
29.5
19.7
9.8
10.5
2.9
.0
94
78
29
8
5
5
87
93
62
31
33
9
1 2 3 4 5 6 7
1 2 3 4 5 6 7
1.98
P < .01
2.55
42. Feebleminded children are less obedient than normal children.
18
27.0
25.1
17.2
19.5
6.5
2.3
2.3
15.2
22.8
21.5
23.7
11.4
5.1
1
.3
D
58
54
37
42
14
5
5
A
D
48
72
68
75
36
16
3
A
1 2 3 4 5 6 7
1 2 3 4 5 6 7
2.70
P < .01
3.10
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

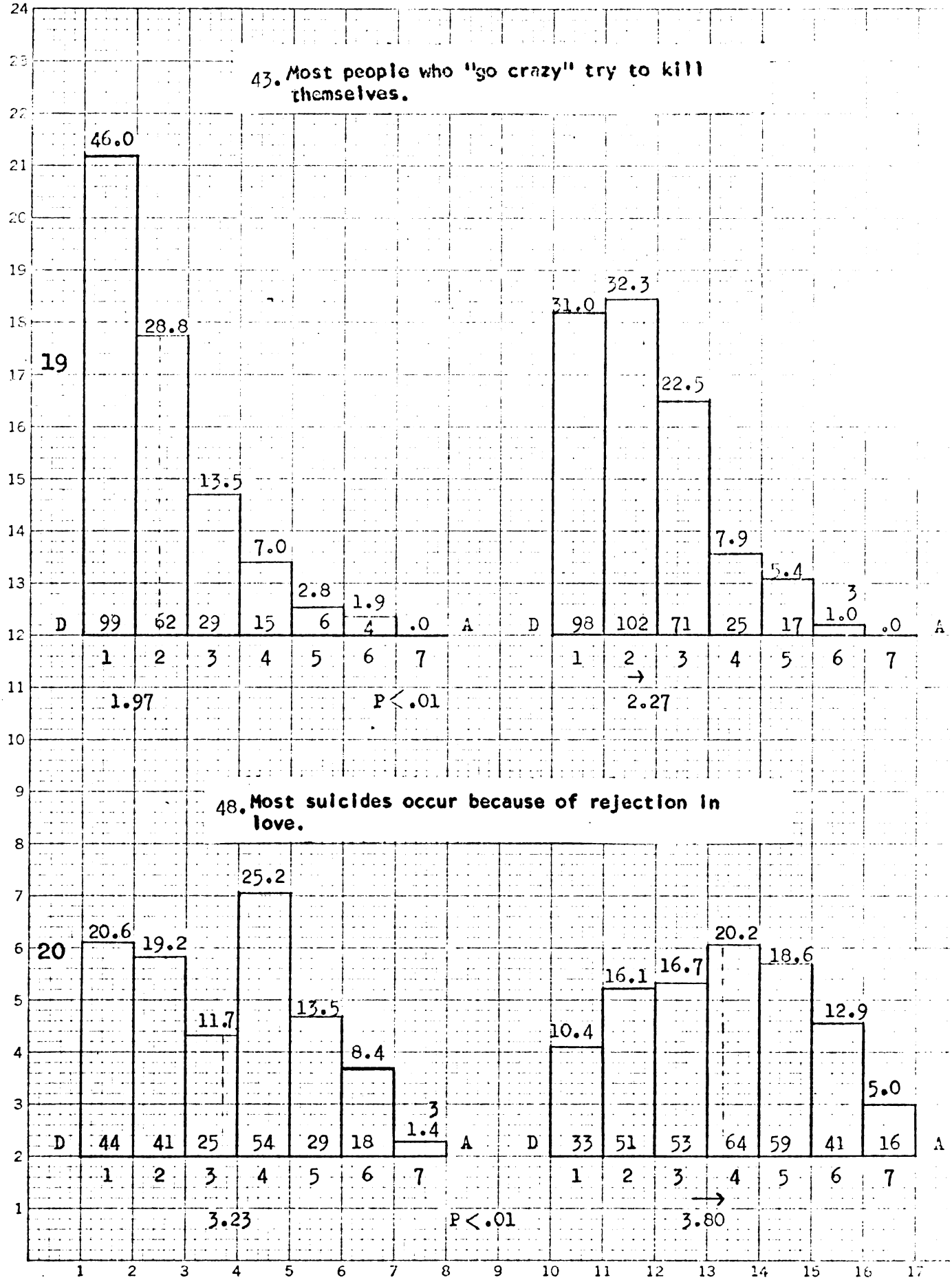

43. Most people who "go crazy" try to kill themselves.
19
46.0
28.8
13.5
7.0
2.8
1.9
.0
31.0
32.3
22.5
7.9
5.4
3
1.0
.0
D 99 62 29 15 6 4 A D 98 102 71 25 17 3 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
1.97
P < .01
2.27
48. Most suicides occur because of rejection in love.
20
20.6
19.2
11.7
25.2
13.5
8.4
3
1.4
10.4
16.1
16.7
20.2
18.6
12.9
5.0
D 44 41 25 54 29 18 A D 33 51 53 64 59 41 16 A
1 2 3 4 5 6 7 1 2 3 4 5 6 7
3.23
P < .01
3.80

TABLE 2.--Summary of the twenty statistically significant opinion items.

| No. | Item | Mean | | Sig. level | Direction of attitude change 1971 |
|---|---|---|---|---|---|
| | | 1962 | 1971 | | |
| 1 | The best way to mental health is by avoiding morbid thoughts | 3.01 | 2.37 | P<.01 | More disagreement |
| 17 | People who keep themselves occupied with pleasant thoughts seldom become mentally ill | 2.81 | 2.44 | P<.01 | More disagreement |
| 20 | People cannot maintain good mental health without the support of strong persons in their environment | 3.42 | 4.02 | P<.01 | Less disagreement |
| 9 | Mental patients usually make good adjustments to society when they are released | 4.49 | 4.16 | P<.01 | Less disagreement |
| 18 | Few people who enter mental hospitals ever leave | 2.04 | 2.39 | P<.01 | Less disagreement |
| 21 | Will power alone will not cure mental disorders | 5.70 | 5.37 | P<.01 | Less agreement |
| 40 | There is not much that can be done for a person who develops a mental disorder | 1.53 | 1.74 | P<.05 | Less disagreement |
| 49 | Many of the people who go to mental hospitals are able to return to work in society again | 5.69 | 5.30 | P<.01 | Less agreement |

TABLE 2--Continued.

| No. | Item | Mean 1962 | Mean 1971 | Sig. level | Direction of attitude change 1971 |
|---|---|---|---|---|---|
| 2 | Mental disorder is one of the most damaging illnesses that a person can have | 4.86 | 4.41 | P<.01 | Less agreement |
| 29 | Mental health is one of the most important national problems | 6.25 | 5.85 | P<.01 | Less agreement |
| 55 | People who go from doctor to doctor with many complaints know that there is nothing really wrong with them | 2.35 | 2.63 | P<.05 | Less disagreement |
| 33 | The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind | 2.60 | 2.36 | P<.05 | More disagreement |
| 25 | Disappointments affect children as much as they do adults | 5.10 | 5.55 | P<.01 | More agreement |
| 51 | Disappointments do not affect children as much as they do adults | 2.72 | 2.34 | P<.01 | More disagreement |
| 47 | Early training will not make the child's brain grow faster | 5.76 | 4.91 | P<.01 | Less agreement |
| 11 | Early adulthood is more of a danger period for mental illness than later years | 3.82 | 4.25 | P<.01 | More agreement |

TABLE 2--Continued.

| No. | Item | Mean | | Sig. level | Direction of attitude change 1971 |
|---|---|---|---|---|---|
| | | 1962 | 1971 | | |
| 45 | Most people can recognize the type of person who is likely to have a nervous breakdown | 1.98 | 2.55 | P<.01 | Less disagreement |
| 42 | Feebleminded children are less obedient than normal children | 2.70 | 3.10 | P<.01 | Less disagreement |
| 43 | Most people who "go crazy" try to kill themselves | 1.97 | 2.27 | P<.01 | Less disagreement |
| 48 | Most suicides occur because of rejection in love | 3.23 | 3.80 | P<.01 | Less disagreement |

statistically significant opinion items). Statistical tests further showed that no indication of change had evolved in the remaining thirty-six opinion items. The following portion, Part II, provides data and tests in support of hypotheses advanced in Chapter II.

## PART II

### Tests of Hypotheses

Question 2: Are selected social characteristics of respondents related to knowledgeability concerning mental health?

In answering the above question hypotheses were constructed and tested. Analysis and findings relative to question 2 are as follows:

Hypothesis 1: Older respondents will be more knowledge able about mental illness than younger respondents.

The relationship between knowledgeability and age of respondents is shown by percentages in Tables 3-A and 3-B, 1962 and 1971, respectively (numbers in percentages indicate the number of persons in each knowledgeability score category).

Table 3-A shows a statistically significant relationship ($P<.02$) between knowledgeability score and age in 1962. For example, 80 per cent of the youngest age category (18-19) were low or very low, whereas 74 per cent of the oldest age category (30 and over) were high or very high.

TABLE 3-A.--Relationship between knowledgeability score and age, in percentages, 1962.

| Age | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| 18-19 | 15 | 40.0 | 40.0 | 13.3 | 6.7 | 100.0 |
| 20-21 | 53 | 15.1 | 24.4 | 28.3 | 30.2 | 100.0 |
| 22-29 | 81 | 19.8 | 27.2 | 32.1 | 21.0 | 100.0 |
| 30-above | 66 | 13.6 | 12.1 | 31.8 | 42.4 | 99.9 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |

$\chi^2 = 21.349$ df = 9 P<.02 C = .21

TABLE 3-B.--Relationship between knowledgeability score and age, in percentages, 1971.

| Age | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| 18-19 | 39 | 28.2 | 35.9 | 23.1 | 12.8 | 100.0 |
| 20-21 | 122 | 9.8 | 22.1 | 44.3 | 23.8 | 100.0 |
| 22-29 | 126 | 21.4 | 26.2 | 24.6 | 27.8 | 100.0 |
| 30-above | 32 | 15.6 | 28.1 | 25.0 | 31.8 | 100.0 |
| Total | 319 | 18.1 (55) | 23.3 (83) | 29.8 (102) | 28.8 (79) | 100.0 |

$\chi^2 = 22.812$ df = 9 P<.01 C = .05

Table 3-B shows a similar pattern for 1971 ($P<.01$), with 64 per cent of the youngest category low or very low, and 56 per cent of the oldest age category high or very high.

The hypothesis of a relationship between age and knowledgeability is supported for both the 1962 and 1971 samples.

Hypothesis 2: There is no relationship between sex and knowledgeability. (The data relevant to hypothesis 2 appear in Tables 4-A and 4-B.)

Table 4-A shows no relationship between knowledgeability score and sex in 1962. Although there is an indication of a tendency in the 1971 data for females to be slightly higher in knowledgeability score, the $\chi^2$ test does not reach the conventional significance levels ($P<.10$).

We can say that the hypothesis is not contradicted by the data.

Hypothesis 3: Graduate students will be more knowledgeable than undergraduate students.

The relationship between knowledgeability and year in school is shown in Tables 5-A and 5-B, in percentages.

Table 5-A shows a weak but statistically significant relationship ($P<.05$) between knowledgeability score and year in school for the 1962 data. For example, 50 per cent of the undergraduates were low or very low, while 67 per cent of the graduates were high or very high.

TABLE 4-A.--Relationship between knowledgeability score and sex, in percentages, 1962.

| Sex | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Male | 116 | 19.0 | 20.7 | 31.9 | 28.4 | 100.0 |
| Female | 99 | 17.2 | 26.3 | 27.3 | 29.3 | 100.1 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |

$\chi^2 = 1.205$ df = 3 Non-significant C = .08

TABLE 4-B.--Relationship between knowledgeability score and sex, in percentages, 1971.

| Sex | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Male | 140 | 22.1 | 27.1 | 31.4 | 19.3 | 99.9 |
| Female | 179 | 13.4 | 25.1 | 32.4 | 29.1 | 100.0 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |

$\chi^2 = 6.646$ df - 3 P<.10 C = .14

TABLE 5-A.--Relationship between knowledgeability score and year in school, in percentages, 1962.

| Year in School | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Undergraduates | 103 | 21.4 | 29.1 | 29.1 | 20.4 | 100.0 |
| Graduates | 112 | 15.2 | 17.9 | 30.4 | 36.6 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2 = 8.960$ | df = 3 | P<.05 | | C = .31 | | |

TABLE 5-B.--Relationship between knowledgeability score and year in school, in percentages, 1971.

| Year in School | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Undergraduates | 255 | 15.7 | 25.5 | 34.1 | 24.7 | 100.0 |
| Graduates | 64 | 23.4 | 28.1 | 23.4 | 25.0 | 99.9 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2 = 3.750$ | df = 3 | Non-significant | | C = .31 | | |

Table 5-B does not reveal a relationship between knowledgeability score and year in school for the 1971 data, although there is an indication of a tendency for graduate students to be higher in knowledgeability score than undergraduate students. For example, 41 per cent of the undergraduates were low or very low, whereas 48 per cent of the graduates were high or very high.

The hypothesis of a relationship between year in school and knowledgeability is supported for the 1962 data, although not supported for the 1971 data.

Hypothesis 4: Education majors will be more knowledgeable about mental illness than all other majors.

Tables 6-A and 6-B show the relationship between knowledgeability and the academic major of the respondents.

Table 6-A shows no relationship between knowledgeability score and academic major for the 1962 data. The 1971 data (Table 6-B) show a weak but statistically significant relationship between knowledgeability score and academic major, although there is no indication that education majors are higher in knowledgeability score.

Therefore, we can say that the hypothesis of a relationship is not supported by the data presented in Tables 6-A and 6-B.

Hypothesis 5: There is not relationship between marital status and knowledgeability.

Data relevant to hypothesis 5 are shown in Tables 7-A and 7-B. These data reveal the relationship between knowledgeability and marital status, in percentages, for 1962 and 1971 respectively.

Inspection of the 1962 and 1971 data reveal no relationship between knowledgeability and marital status (Tables 7-A and 7-B, respectively).

Thus, the hypothesis is not contradicted by the data.

Hypothesis 6: There is no relationship between knowledgeability and community type

Data relevant to hypothesis 6 appear in Tables 8-A and 8-B. These data show the relationship between knowledgeability and community type of the respondents, in percentages, for the 1962 and 1971 samples.

The 1962 and 1971 data (Tables 8-A and 8-B respectively) show no relationship between knowledgeability and community type. Examination reveals that at each time period the data fall in accordance with the prediction made by the hypothesis.

We can say that the hypothesis is not contradicted by the data.

TABLE 10-A.--Relationship between knowledgeability score and suburban residence, in percentages, 1962.

| Suburb? | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Yes | 39 | 20.5 | 28.2 | 23.1 | 28.2 | 100.0 |
| No | 176 | 17.6 | 22.2 | 31.3 | 29.0 | 100.1 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |

$\chi^2 = 1.373$ df = 3 Non-significant C = .08

TABLE 10-B.--Relationship between knowledgeability score and suburban residence, in percentages, 1971.

| Suburb? | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Yes | 118 | 16.1 | 31.4 | 33.1 | 19.5 | 100.1 |
| No | 201 | 17.9 | 22.9 | 31.3 | 27.9 | 100.0 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |

$\chi^2 = 4.362$ df = 3 P~.20 C = .12

TABLE 8-A.--Relationship between knowledgeability score and community type, in percentages, 1962.

| Community Type | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Farm or country | 46 | 17.4 | 17.4 | 37.0 | 28.3 | 100.1 |
| City or town | 169 | 18.3 | 24.9 | 27.8 | 29.0 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2$ = 1.906 | df = 3 | Non-significant | | | C = .09 | |

TABLE 8-B.--Relationship between knowledgeability score and community type, in percentages, 1971.

| Community Type | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Farm or country | 63 | 20.6 | 23.8 | 27.0 | 28.6 | 100.0 |
| City or town | 256 | 16.4 | 26.6 | 33.2 | 23.8 | 100.0 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2$ = 1.742 | df = 3 | Non-significant | | | C = .07 | |

TABLE 7-A.--Relationship between knowledgeability score and marital status, in percentages, 1962.

| Marital Status | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Married | 110 | 16.4 | 22.7 | 29.1 | 31.8 | 100.0 |
| Single | 102 | 20.6 | 23.5 | 29.4 | 26.5 | 100.0 |
| Total | 212 | 18.4 (39) | 23.1 (49) | 29.2 (62) | 29.2 (62) | 100.0 |
| Unused - 3 | $\chi^2 = 1.048$ | df = 3 | Non-significant | C = .07 | | |

TABLE 7-B.--Relationship between knowledgeability score and marital status, in percentages, 1971.

| Marital Status | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Married | 106 | 17.0 | 25.5 | 29.2 | 28.3 | 100.0 |
| Single | 206 | 16.5 | 27.2 | 34.5 | 21.8 | 100.0 |
| Total | 312 | 16.7 (52) | 26.6 (83) | 32.7 (102) | 24.0 (75) | 100.0 |
| Unused = 7 | $\chi^2 = 1.884$ | df = 3 | Non-significant | C = .08 | | |

TABLE 9-A.--Relationship between knowledgeability score and community size, in percentages, 1962.

| Community Size | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Less than 20,000 | 109 | 19.3 | 23.9 | 31.2 | 25.7 | 100.1 |
| 20,000-99,000 | 48 | 18.8 | 18.8 | 25.0 | 37.5 | 100.1 |
| 100,000 and over | 58 | 15.5 | 25.9 | 31.0 | 27.6 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2$ = 3.038 | df = 6 | Non-significant | | | C = .16 | |

TABLE 9-B.--Relationship between knowledgeability score and community size, in percentages, 1971.

| Community Size | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| 20,000 or less | 145 | 20.7 | 22.1 | 26.2 | 31.0 | 100.0 |
| 20,000-99,000 | 81 | 16.0 | 30.9 | 35.8 | 17.3 | 100.0 |
| 100,000 and over | 93 | 12.0 | 28.0 | 37.6 | 21.5 | 100.0 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2$ = 11.151 | df = 6 | P<.10 | | | C = .11 | |

Hypothesis 7: There is not relationship between community size and knowledgeability

Data relevant to the 1962 and 1971 samples are shown in percentages, Tables 9-A and 9-B respectively. These data show the relationship between knowledgeability and community size of the respondents.

The 1962 data show no relationship between community size and knowledgeability score (Table 9-A). Although there is an indication of a tendency in the 1971 data (Table 9-B) for respondents with community size 100,000 and over to be slightly higher in knowledgeability score, the $\chi^2$ test does not reach the conventional significance levels ($P<.10$).

Therefore, we can say that the hypothesis is not contradicted by the data.

Hypothesis 8: There is no relationship between suburban residence and knowledgeability

Data pertaining to hypothesis 8 are shown in percentages for the 1962 and 1971 samples (Tables 10-A and 10-B). These data show the relationship between knowledgeability and suburban residence.

The 1962 data show no relationship between suburban residence and knowledgeability score (Table 10-A). Although there is an indication of a tendency in the 1971 data (Table 10-B) for respondents who are not from suburban

TABLE 6-A.--Relationship between knowledgeability score and academic major, in percentages, 1962.

| Major | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Social Science | 59 | 15.3 | 27.7 | 32.2 | 28.8 | 100.0 |
| Education | 114 | 14.9 | 23.7 | 28.9 | 32.5 | 100.0 |
| All Others | 42 | 31.0 | 21.4 | 28.6 | 19.0 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2 = 6.879$ | df = 6 | Non-significant | | | C = .18 | |

TABLE 6-B.--Relationship between knowledgeability score and academic major, in percentages, 1971.

| Major | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| Social Science | 130 | 13.1 | 22.3 | 36.2 | 28.5 | 100.1 |
| Education | 78 | 16.7 | 33.3 | 29.5 | 20.5 | 100.0 |
| All Others | 111 | 22.5 | 25.2 | 28.8 | 23.4 | 99.9 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2 = 8.009$ | df = 6 | P<.20 | | C = .16 | | |

areas to be slightly higher in knowledgeability score, the $\chi^2$ test does not reach the conventional significance levels (P~.20).

We can say that the hypothesis is not contradicted by the data.

Hypothesis 9: Persons indicating friends mentally ill will be more knowledgeable than persons indicating no experience with friends mentally ill.

Data relevant to hypothesis 9 appear in Tables 11-A and 11-B. These data, 1962 and 1971 respectively, show the relationship between knowledgeability and persons indicating friends mentally ill, in percentages.

Table 11-A shows a weak but statistically significant relationship (P~.10) between knowledgeability score and friends mentally ill, for the 1962 data. For example, 47 per cent of the respondents indicating no experience with friends mentally ill were low or very low in knowledgeability score, whereas, 69 per cent of respondents indicating experience with friends mentally ill were high or very high in knowledgeability score. Table 11-B shows a similar but somewhat stronger relationship for the 1971 data (P<.05), with 47 per cent of respondents indicating no experience with friends mentally ill low or very low, while

TABLE 11-A.--Relationship between knowledgeability score and friends mentally ill, in percentages, 1962.

| Friends Mentally Ill? | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| No | 142 | 21.1 | 26.1 | 26.1 | 26.8 | 100.1 |
| Yes | 73 | 12.3 | 17.8 | 37.0 | 32.9 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2 = 6.028$ | | df = 3 | | P~.10 | | C = .17 |

TABLE 11-B.--Relationship between knowledgeability score and friends mentally ill, in percentages, 1971.

| Friends Mentally Ill? | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| No | 204 | 20.6 | 26.5 | 32.8 | 20.1 | 100.0 |
| Yes | 115 | 11.3 | 25.2 | 30.4 | 33.0 | 99.9 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2 = 8.831$ | | df = 3 | | P<.05 | | C = .16 |

63 per cent of respondents indicating experience with friends mentally ill high or very high in knowledgeability score.

For the 1962 and 1971 data, respondents indicating experience with friends mentally ill tended to be somewhat more knowledgeable than respondents with no prior experience with friends mentally ill. Therefore, the hypothesis of a relationship between knowledgeability and friends mentally ill is supported for both the 1962 and 1971 samples.

Hypothesis 10: Persons indicating family members mentally ill will be more knowledgeable than persons indicating no experience with family members mentally ill.

Data relevant to hypothesis 10 are shown in Tables 12-A and 12-B (1962 and 1971, respectively). These data show the relationship between knowledgeability and family members mentally ill, in percentages.

Contrary to expectation, the 1962 data (Table 12-A) show only a weak indication of a tendency for respondents with family members mentally ill to be slightly higher in knowledgeability score, although the $\chi^2$ test does not reach the conventional probability levels ($P<.20$). The 1971 data (Table 12-B) show no relationship between knowledgeability score and family members mentally ill.

TABLE 12-A.--Relationship between knowledgeability score and family members mentally ill, in percentages, 1962.

| Family Members Mentally Ill? | N | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| No | 162 | 20.4 | 24.1 | 29.6 | 25.9 | 100.0 |
| Yes | 53 | 11.3 | 30.2 | 30.2 | 37.7 | 100.0 |
| Total | 215 | 18.1 (39) | 23.3 (50) | 29.8 (64) | 28.8 (62) | 100.0 |
| $\chi^2 = 3.928$ | | df = 3 | | P<.20 | | C = .13 |

TABLE 12-B.--Relationship between knowledgeability score and family members mentally ill, in percentages, 1971.

| Family Members Mentally Ill? | | Knowledgeability Score | | | | |
|---|---|---|---|---|---|---|
| | | Very Low | Low | High | Very High | Total |
| No | 232 | 18.5 | 25.0 | 33.2 | 23.3 | 100.0 |
| Yes | 87 | 13.8 | 28.7 | 28.7 | 28.7 | 99.9 |
| Total | 319 | 17.2 (55) | 26.0 (83) | 32.0 (102) | 24.8 (79) | 100.0 |
| $\chi^2 = 2.319$ | | df = 3 | | Non-significant | | C = .09 |

Therefore, we can say that the trend of a relationship is supported for the 1962 data but not for the 1971 data.

## Summary

The primary purpose of this portion of the analysis was to present statistical data and tests for the ten substantive hypotheses constructed to determine whether a relationship existed between knowledgeability and the ten social variables advanced in chapter two of this study.

Data and tests, in support of the ten hypotheses indicated weak relationships between knowledgeability score and the ten social variables, with the exception of age. A relatively stronger statistically significant relationship ($P<.02$) was indicated between knowledgeability score and age in 1962. A similar statistically significant relationship was indicated in 1971 ($P<.01$). The remaining nine hypotheses indicated only weak or no relationship between knowledgeability score and specific social characteristics in 1962 and 1971.

TABLE 13.--Summary of the relationship between social variables and knowledgeability.

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

# CHAPTER IV

## SUMMARY AND CONCLUSIONS

### Summary

The problem of this thesis evolved through a critical review of literature pertaining to change and stability in attitudes concerning mental illness, and to empirical relationships between knowledge about mental illness and specific sociological variables. Although different investigators did not always find drastic changes in attitudes, or strong relationships between attitudes toward mental illness and specific social variables, the general impression conveyed by most of the literature was that changes in mental health attitudes have evolved in the last decade, mainly: (1) that people tend to be more knowledgeable about mental illness today than a decade ago, and there seems to be a better understanding of mental illness and greater tolerance of the mentally ill; (2) that, in most cases, only slight differences emerged between attitudes about mental illness and specific sociological variables, with minor exceptions. Some investigators found relatively strong relationships with specific social variables, while others found only weak or no relationships with the same or different social variables.

The specific problem of this investigation centered around two basic questions derived from the review of literature concerning mental health attitude change in relation to specific social characteristics:

1. What changes have taken place in mental health attitudes in the last decade?
   (a) In what direction and to what extent has this change evolved?
2. Are selected social characteristics of respondents related to knowledgeability concerning mental health?

Two samples were used for this investigation: Sample 1962 consists of students enrolled in selected Michigan State University sociology courses, during the 1962 summer term (N = 215). Sample 1971 consists of students enrolled in the same sociology courses, during the 1971 summer session (N = 319).

The method of data collection consisted of fifty-six opinion items, with provision for one of seven responses ranging from "strongly disagree" to "strongly agree."

The ten social characteristics used in this investigation include the following:

Age

Sex

Year in School

Academic Major

Marital Status

Community Type

Community Size

Suburban Residence?

Friends Mentally Ill?

Family Members Mentally Ill?

The analysis proceeded by employing the two specific questions of this investigation:

Question 1: What changes have taken place in mental health attitudes in the last decade?

(a) In what direction and to what extent has this change evolved?

In order to answer this question, the mean responses of fifty-six opinion items for 1962 and 1971 were statistically tested for significance (by t-statistic). Hypotheses were not constructed for this portion of the analysis. Findings show that, of the fifty-six opinion items, twenty were significantly different. Graphic presentations showed the twenty statistically significant opinion items, percentage distribution, frequency distribution, and the mean response category. The graphic presentation also showed the direction and degree of attitude change in 1971, and a somewhat accurate indication of the mean in 1962 and 1971.

The significantly different opinion items were analyzed in relation to the following nine categories:

I. Causal

II. Recovery (cure, prognosis)

III. Seriousness

IV. Role of the Psychiatrist

V. Age: Children

VI. Age: Older

VII. Men-Women

VIII. Symptoms

IX. Miscellaneous

Analysis revealed that, on a whole, the answer to question 1 is negative.

Question 2: Are selected social characteristics related to knowledgeability concerning mental health?

In order to answer the above question and determine the relationship between knowledgeability and the ten sociological variables, ten hypotheses were constructed and tested (by $\chi^2$ test). This portion of the investigation was analyzed in terms of two types of hypotheses: "substantive" and "operational" hypotheses. The substantive hypotheses dealt primarily with the terms "knowledgeable" and "knowledgeability," whereas, the operational hypotheses were concerned primarily with the "knowledgeability score."

The substantive hypotheses developed to test the relationship between knowledgeability and the ten social variables are as follows:

Hypothesis 1: Older respondents will be more knowledgeable about mental illness than younger respondents.

Hypothesis 2: There is no relationship between sex and knowledgeability.

Hypothesis 3: Graduate students will be more knowledgeable than undergraduate students.

Hypothesis 4: Education majors will be more knowledgeable about mental illness than all other majors.

Hypothesis 5: There is no relationship between marital status and knowledgeability.

Hypothesis 6: There is no relationship between knowledgeability and community type.

Hypothesis 7: There is no relationship between knowledgeability and community size.

Hypothesis 8: There is no relationship between knowledgeability and suburban residence.

Hypothesis 9: Persons indicating friends mentally ill will be more knowledgeable than persons indicating no experience with friends mentally ill.

Hypothesis 10: Persons indicating family members mentally ill will be more knowledgeable than persons indicating no experience with family members mentally ill.

The analytical procedure for testing the substantive hypotheses involved a statistical comparison between the knowledgeability score and the ten sociological variables.

Findings revealed that, on a whole, the answer to question 2 is negative.

## Conclusions

The results of this investigation seem to warrant two major conclusions: First, results show that, of the fifty-six opinion items used in this research, twenty showed significantly different means between 1962 and 1971. The statistically significant opinion items varied in degree and direction of attitude change. The analysis uncovered no apparent change in the remaining thirty-six opinion items.

Second, data and tests in support of the ten hypotheses, indicated only weak relationships between knowledgeability score and the ten sociological variables, with the exception of age. A relatively stronger statistically significant relationship ($P<.02$) was indicated between knowledgeability and age in 1962. A very similar statistically significant relationship was indicated in 1971 ($P<.10$). The remaining nine hypotheses indicated only weak or no relationship between knowledgeability and the selected characteristics used in this investigation.

## Contributions

A major contribution of this study lies in the fact that it provides a more precise specification of change or

stability in attitudes concerning concepts of mental health among college students at Michigan State University over a period of time. A further contribution of importance is found in a more extensive examination of a more accurate specification of the relationship between knowledgeability and specific social variables. Contrary to the author's expectations and probably to many hypotheses of many sociologists, there appeared to be little or no relationship between "standard" sociological variables for a measure of knowledgeability about mental health concepts with the possible exception of age.

Although it cannot be claimed that the problem was completely resolved by this investigation, it provided further systematic research in this general area.

## Limitations and Suggestions for Future Research

The results of this investigation are limited to the 534 summer school students enrolled in sociology courses at Michigan State University, composing the samples used. In all probability, cautious generalizations may be made to subjects similar in characteristics to those tested in this investigation.

In addition, the results and conclusions of this investigation may tentatively be extended to other variables and to other aspects of the society.

Assuming that the two major questions asked of this investigation are tenable, several questions and suggestions may be advanced for future related research:

1. To what extent are the attitudes of Michigan State University students alike or different from the attitudes of other college students?

2. To what extent can we assume that the attitudes of Michigan State University students are alike or different from the attitudes of persons in other positions in our society?

3. Further investigation of knowledgeability in relation to social characteristics not employed in this research.

4. Further investigation of the relationship between social characteristics and knowledge about mental illness employing a different measure of knowledgeability.

# BIBLIOGRAPHY

BIBLIOGRAPHY

Bates, Josephine A. "Attitudes Toward Mental Illness." Mental Hygiene, LII (1968), 250-53.

Dohrenwend, Bruce P., and Chin-Shong, Edwin. "Social Status and Attitudes Toward Psychological Disorder: The Problem of Tolerance of Deviance." American Sociological Review, XXXII (1967), 417-33.

Freeman, H. E. "Attitudes Toward Mental Illness Among Relatives of Former Patients." American Sociological Review, XXVI (1961), 59-66.

Halpert, H. P. "Surveys of Public Opinions and Attitudes About Mental Illness." Public Health Reports, LXXX (July, 1965), 589-97.

_____. "Public Acceptance of the Mentally Ill: An Exploration of Attitudes." Reprint based on a paper presented at the 7th International Congress on Mental Health, London, August 12-17, 1968.

Lemkau, Paul V. "Evaluation of the Effect of Changes in Environmental Factors, with Special Attention to Attitudes Toward Mental Health and Mental Illness." Social Psychiatry. By Joseph Zubin. New York: Grune and Stratton, 1968.

_____, and Crocetti, Guido M. "An Urban Population's Opinion and Knowledge About Mental Illness." American Journal of Psychiatry, CXVIII (1962), 692-700.

Nunnally, Jum C. Popular Conceptions of Mental Health. New York: Holt, Rinehart and Winston, 1961.

Olmsted, Donald W., and Ordway, Robert K. "Concepts of Mental Health: A Pilot Analysis." Final Report, Project M-5880(A), NIMH, Department of Sociology, Michigan State University, June, 1963. (Mimeographed.)

Soddy, Kenneth, and Ahrenfedt, Robert H. Mental Health and Contemporary Thought, (Bibliography), II (1967), 291-355.

Zubin, Joseph, and Freyhan, Fritz A. Social Psychiatry. New York: Grune and Stratton, 1968.

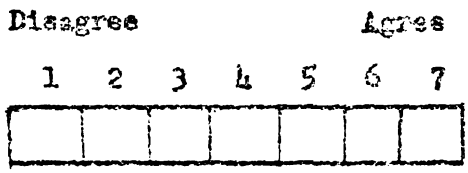
# APPENDIX A

## MENTAL HEALTH OPINION ITEMS

Dept. of Sociology
Michigan State Univ.
7-71

## OPINIONS ABOUT MENTAL HEALTH

On the following pages are a number of 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:



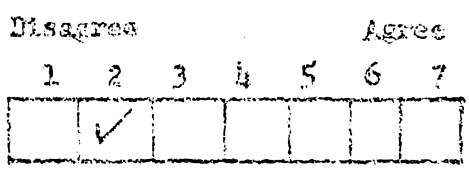

The points along the scale can be interpreted as follows:

1. Completely disagree
2. Mostly disagree
3. Disagree more than agree
4. Neutral or Undecided
5. Agree more than disagree
6. Mostly agree
7. Completely agree

The use of the scale can be illustrated with the following statement:

"Smoking causes lung cancer."

If you agree completely with this statement, you would place a check mark in box 7. If you agree slightly with the statement, you would place a check in box 5. If you mostly disagree with the statement, you would place a check in box 2, like this:




Please make one check mark for each statement.

Don't spend more than a few seconds marking each statement.

If it is difficult to make up your mind, make the best guess you can and go on to the next one.

1

| | Disagree 1 | 2 | 3 | 4 | 5 | 6 | Agree 7 |
|---|---|---|---|---|---|---|---|
| The best way to mental health is by avoiding morbid thoughts. | | | | | | | |
| Mental disorder is one of the most damaging illnesses that a person can have. | | | | | | | |
| Children sometimes have mental breakdowns as severe as those of adults. | | | | | | | |
| Nervous breakdowns seldom have a physical origin. | | | | | | | |
| The mentally ill have not received enough guidance from the important people in their lives. | | | | | | | |
| Women are as emotionally healthy as men. | | | | | | | |
| The seriousness of the mental health problem in this country has been exaggerated. | | | | | | | |
| Helping the mentally ill person with his financial and social problems often improves his condition. | | | | | | | |
| Mental patients usually make a good adjustment to society when they are released. | | | | | | | |
| The good psychiatrist acts like a father to his patients. | | | | | | | |
| Early adulthood is more of a danger period for mental illness than later years. | | | | | | | |
| You can tell a person who is mentally ill from his appearance. | | | | | | | |
| People who become mentally ill have little will power. | | | | | | | |
| Women are more likely to develop mental disorders than men. | | | | | | | |
| Most mental disturbances in adults can be traced to emotional experiences in childhood. | | | | | | | |

CONTINUE ON NEXT PAGE

| | Disagree 1 | 2 | 3 | 4 | 5 | 6 | Agree 7 |
|---|---|---|---|---|---|---|---|
| The mentally ill pay little attention to their personal appearance. | | | | | | | |
| People who keep themselves occupied with pleasant thoughts seldom become mentally ill. | | | | | | | |
| Few people who enter mental hospitals ever leave. | | | | | | | |
| Older people have fewer emotional problems than younger people. | | | | | | | |
| People cannot maintain good mental health without the support of strong persons in their environment. | | | | | | | |
| Will power alone will not cure mental disorders. | | | | | | | |
| Women have no more emotional problems than men do. | | | | | | | |
| Emotional problems do little damage to the individual. | | | | | | | |
| Mental illness can usually be helped by a vacation or change of scene. | | | | | | | |
| Disappointments affect children as much as they do adults. | | | | | | | |
| The insane laugh more than normal people. | | | | | | | |
| Psychiatrists try to show the mental patient where his ideas are incorrect. | | | | | | | |
| 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. | | | | | | | |

CONTINUE ON NEXT PAGE

3

| | Disagree 1 | 2 | 3 | 4 | 5 | 6 | Agree 7 |
|---|---|---|---|---|---|---|---|
| It is easier for women to get over emotional problems than it is for men. | | | | | | | |
| A change of climate seldom helps an emotional disorder. | | | | | | | |
| The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind. | | | | | | | |
| Psychiatrists try to teach mental patients to hold in their strong emotions. | | | | | | | |
| X-rays of the head will not tell whether a person is likely to become insane. | | | | | | | |
| Almost any disease that attacks the nervous system is likely to bring on insanity. | | | | | | | |
| If a person concentrates on happy memories he will not be bothered by unpleasant things in the present. | | | | | | | |
| 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 clergymen will encourage a person with a mental disorder to see a psychiatrist. | | | | | | | |
| Feebleminded children are less obedient than normal children. | | | | | | | |
| Most people who "go crazy" try to kill themselves. | | | | | | | |
| Few of the people who seek psychiatric help need the treatment. | | | | | | | |
| Most people can recognize the type of person who is likely to have a nervous breakdown. | | | | | | | |

CONTINUE ON NEXT PAGE

| | Disagree 1 | 2 | 3 | 4 | 5 | 6 | Agree 7 |
|---|---|---|---|---|---|---|---|
| If a child is jealous of a younger brother it is best not to let him show it in any way. | | | | | | | |
| Early training will not make the child's brain grow faster. | | | | | | | |
| Most suicides occur because of rejection in love. | | | | | | | |
| Many of the people who go to mental hospitals are able to return to work in society again. | | | | | | | |
| Children usually do not forget about frightening experiences in a short time. | | | | | | | |
| Disappointments do not affect children as much as they do adults. | | | | | | | |
| Most of the insanity cases are found in people over fifty years of age. | | | | | | | |
| Good emotional habits cannot be taught to children in school as easily as spelling can. | | | | | | | |
| The eyes of the insane are glassy. | | | | | | | |
| People who go from doctor to doctor with many complaints know that there is nothing really wrong with them. | | | | | | | |
| A person cannot rid himself of unpleasant memories by trying hard to forget them. | | | | | | | |

CONTINUE ON NEXT PAGE

GENERAL INFORMATION

_____
Student Number

1. Age _____. 2. Male _____, Female _____.

3. Year in School: Fr.____, Soph._____, Jr. _____ Sr. _____,
Grad. M.A. _____, Grad. Ph.D. _____.

4. Major _____

5. Married _____, Single _____, Widowed _____, Separated _____
Divorced _____.

6. In what size community did you live during most of the first 18 years of your life? (check one below)

a. _____on a farm.
b. _____in the open countryside, but not on a farm.
c. _____town or city,
(1) with approximate population of _____
(please estimate)
(2) is this a suburb? yes ____, no ____.

7. Have any of good friends ever been mentally ill?
(circle appropriate category).

a. No.
b. Yes, a middle-age man.
c. Yes, a middle-aged woman.
d. Yes, an elderly man.
e. Yes, an elderly woman.
f. Yes, a boy.
g. Yes, a girl.
h. Yes, several friends.

8. Has any member of your family ever been mentally ill?
(circle appropriate category).

a. No.
b. Yes, a grandparent.
c. Yes, a parent.
d. Yes, a husband or wife.
e. Yes, a son or daughter.
f. Yes, a brother or sister.
g. Yes, some other relative.
h. Yes, several members.

THAT'S ALL.
THANK YOU VERY MUCH.

# APPENDIX B

## MENTAL HEALTH OPINION ITEMS WITH GREATEST AMOUNT OF CONSENSUS AMONG THE PROFESSIONALS

TABLE B.1.--Percentage response to ten mental health opinion items with greatest consensus among the professionals.

| | Item | Expert % | Expert % in "4" | Expert Category |
|---|---|---|---|---|
| 40 | There is not much that can be done for a person who develops a mental disorder | 95 | 1 | 1,2 |
| 44 | Few of the people who seek psychiatric help need the treatment | 90 | 4 | 1,2 |
| 49 | Many of the people who go to mental hospitals are able to return to work in society again | 90 | 1 | 6,7 |
| 46 | If a child is jealous of a younger brother it is best not to let him show it in any way | 83 | 3 | 1,2 |
| 43 | Most people who "go crazy" try to kill themselves | 88 | 4 | 1,2 |
| 55 | People who go from doctor to doctor with many complaints know that there is nothing really wrong with them | 72 | 6 | 1,2 |
| 45 | Most people can recognize the type of person who is likely to have a nervous breakdown | 77 | 9 | 1,2 |
| 39 | Most of the people in mental hospitals speak in terms that can be understood | 66 | 10 | 6,7 |
| 33 | The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind | 64 | 9 | 1,2 |
| 56 | A person cannot rid himself of unpleasant memories by trying hard to forget them | 59 | 7 | 6,7 |

# APPENDIX C

## DEMOGRAPHIC DATA: 1962 AND 1971 SAMPLES OF SUMMER SCHOOL SOCIOLOGY STUDENTS, MICHIGAN STATE UNIVERSITY, WITH STATISTICAL SIGNIFICANCE OF DIFFERENCES

TABLE C.1.--Demographic data: 1962 and 1971 samples of summer school sociology students, Michigan State University, with statistical significance of differences.

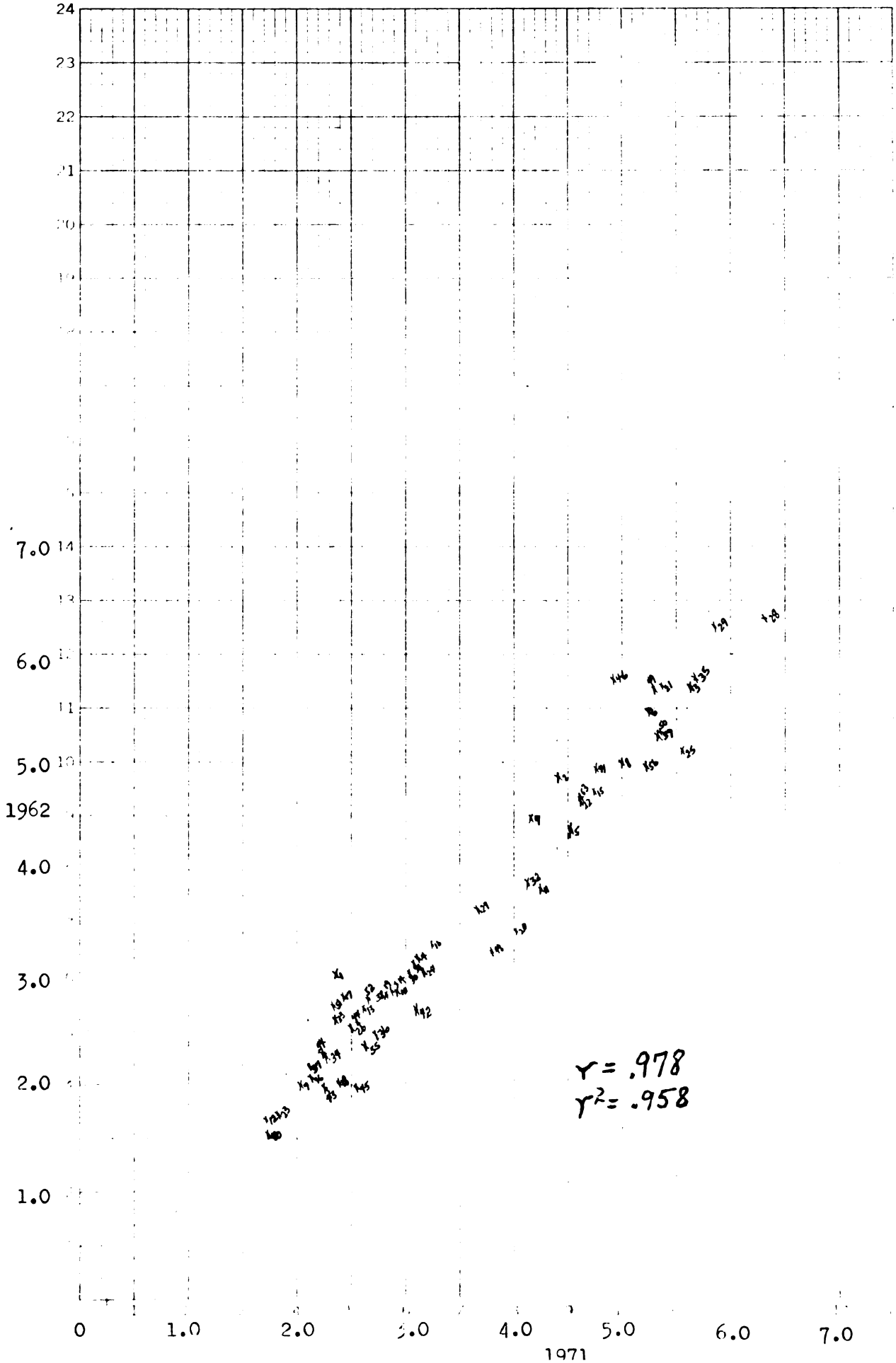
| | 1962 | | 1971 | |
|---|---|---|---|---|
| | N | % | N | % |
| Age | | | | |
| 18-19 | 15 | 7.0 | 39 | 12.3 |
| 20-21 | 53 | 24.7 | 122 | 38.2 |
| 22-29 | 81 | 37.6 | 126 | 39.5 |
| 30-above | 66 | 30.7 | 32 | 10.0 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2 = 40.737$ | | P<.001 | |
| Sex | | | | |
| Male | 116 | 54.0 | 140 | 43.9 |
| Female | 99 | 46.0 | 179 | 56.1 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2 = 5.213$ | | P<.05 | |
| Year in School | | | | |
| Undergraduates | 103 | 49.9 | 255 | 79.9 |
| Graduates | 112 | 52.1 | 64 | 20.1 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2 = 64.842$ | | P<.001 | |
| Major | | | | |
| Social Science (Sociology--Other Majors in the College of Social Science) | 59 | 27.4 | 130 | 40.8 |
| Education | 114 | 53.1 | 78 | 24.5 |
| All Others | 42 | 19.5 | 111 | 34.7 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2 = 46.028$ | | P<.001 | |
| Marital Status | | | | |
| Married | 101 | 47.0 | 111 | 34.8 |
| Single | 102 | 47.4 | 206 | 64.6 |
| No Response | 12 | 5.6 | 2 | .6 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2 = 11.129$ | | P<.001 | |

TABLE C.1.--Continued.

| | 1962 | | 1971 | |
|---|---|---|---|---|
| | N | % | N | % |
| Community Type | | | | |
| Farm or Country | 46 | 21.4 | 63 | 19.7 |
| Town or City | 169 | 78.6 | 256 | 80.3 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2$ = .212 | Non-significant | | |
| Community Size | | | | |
| 20,000 or less | 109 | 50.7 | 145 | 45.5 |
| 20,000-99,000 | 48 | 22.3 | 81 | 25.3 |
| 100,000 and over | 58 | 27.0 | 93 | 29.2 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2$ = 1.454 | P<.50 | | |
| Suburb? | | | | |
| Yes | 39 | 18.1 | 118 | 37.0 |
| No | 176 | 81.9 | 201 | 63.0 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2$ = 21.987 | P<.001 | | |
| Mental Illness Experience Friends? | | | | |
| No | 142 | 66.0 | 204 | 63.9 |
| Yes | 73 | 34.0 | 115 | 36.1 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2$ = .246 | Non-significant | | |
| Mental Illness Experience Family Members? | | | | |
| No | 162 | 75.3 | 232 | 72.7 |
| Yes | 53 | 24.7 | 87 | 27.3 |
| Total | 215 | 100.0 | 319 | 100.0 |
| | $\chi^2$ = .455 | Non-significant | | |

# APPENDIX D

## SCATTERGRAM: PLOTTING OF ITEM MEANS OBTAINED FROM FIFTY-SIX OPINION ITEMS, 1962 AND 1971


24
23
22
21
20
7.0
6.0
5.0
1962
4.0
3.0
2.0
1.0
0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
1971
r = .978
r² = .958

# APPENDIX E

## RELATIONSHIP BETWEEN KNOWLEDGEABILITY SCORE AND TEN SOCIAL VARIABLES

TABLE E.1.--Relationships between knowledgeability score and age, 1962.

| Knowledgeability Score | Age | | | | |
|---|---|---|---|---|---|
| | 18-19 | 20-21 | 22-29 | 30-over | Total |
| Very Low (28-38) | + 6 | - 8 | +16 | - 9 | 39 |
| Low (39-42) | + 6 | +14 | +22 | - 8 | 50 |
| High (43-46) | - 2 | -15 | +26 | +21 | 64 |
| Very High (47-50) | - 1 | +16 | -17 | +28 | 62 |
| Total | 15 | 53 | 81 | 66 | 215 |
| N = 215 | $\chi^2$ = 21.349 | | C = .30 | P<.02 | |

TABLE E.2.--Relationship between knowledgeability score and age, 1971.

| Knowledgeability Score | Age | | | | |
|---|---|---|---|---|---|
| | 18-19 | 20-21 | 22-29 | 30-over | Total |
| Very Low (28-38) | +11 | -12 | +27 | - 5 | 55 |
| Low (39-42) | +14 | -27 | +33 | + 9 | 83 |
| High (43-46) | - 9 | +54 | -31 | - 8 | 102 |
| Very High (47-50) | - 5 | -29 | +35 | +10 | 79 |
| Total | 39 | 122 | 126 | 32 | 319 |
| N = 319 | $\chi^2$ = 22.812 | | C = .26 | P<.01 | |

TABLE E.3.--Relationship between knowledgeability score and sex, 1962.

| Knowledgeability Score | Sex | | |
|---|---|---|---|
| | Male | Female | Total |
| Very Low (28-38) | + 22 | - 17 | 39 |
| Low (39-42) | - 24 | + 26 | 50 |
| High (43-46) | + 37 | - 27 | 64 |
| Very High (47-50) | - 33 | + 29 | 62 |
| Total | 116 | 99 | 215 |
| $\chi^2$ = 1.205 | C = .08 | Non-significant | |

TABLE E.4.--Relationship between knowledgeability score and sex, 1971.

| Knowledgeability Score | Sex | | |
|---|---|---|---|
| | Male | Female | Total |
| Very Low (28-38) | + 31 | - 24 | 55 |
| Low (39-42) | + 38 | - 45 | 83 |
| High (43-46) | - 44 | + 58 | 102 |
| Very High (47-50) | - 27 | + 52 | 79 |
| Total | 140 | 179 | 319 |
| $\chi^2$ = 6.646 | C = .14 | P<.10 | |

TABLE E.5.--Relationship between knowledgeability score and year in school, 1962.

| Knowledgeability Score | Year in School | | |
|---|---|---|---|
| | Undergraduates | Graduates | Total |
| Very Low (28-38) | + 22 | - 17 | 39 |
| Low (39-42) | + 30 | - 20 | 50 |
| High (43-46) | + 30 | + 34 | 64 |
| Very High (47-50) | - 21 | + 41 | 62 |
| Total | 103 | 112 | 215 |
| $\chi^2 = 8.960$ | C = .31 | P<.05 | |

TABLE E.6.--Relationship between knowledgeability score and year in school, 1971.

| Knowledgeability Score | Year in School | | |
|---|---|---|---|
| | Undergraduates | Graduates | Total |
| Very Low (28-38) | - 40 | + 15 | 55 |
| Low (39-42) | + 65 | + 18 | 83 |
| High (43-46) | + 87 | - 15 | 102 |
| Very High (47-50) | - 63 | + 16 | 79 |
| Total | 255 | 64 | 319 |
| $\chi^2 = 3.750$ | C = .15 | Non-significant | |

TABLE E.7.--Relationship between knowledgeability score and academic major, 1962.

| Knowledgeability Score | Academic Major | | | |
|---|---|---|---|---|
| | Soc. Sci. | Education | All Others | Total |
| Very Low (28-38) | - 9 | - 17 | + 13 | 39 |
| Low (39-42) | + 14 | + 27 | - 9 | 50 |
| High (43-46) | + 19 | - 33 | - 12 | 64 |
| Very High (47-50) | - 17 | + 37 | - 8 | 62 |
| Total | 59 | 114 | 42 | 215 |
| $\chi^2 = 6.879$ | C = .18 | | Non-significant | |

TABLE E.8.--Relationship between knowledgeability score and academic major, 1971.

| Knowledgeability Score | Academic Major | | | |
|---|---|---|---|---|
| | Soc. Sci. | Education | All Others | Total |
| Very Low (28-38) | - 17 | - 13 | + 25 | 55 |
| Low (39-42) | - 29 | + 26 | - 28 | 83 |
| High (43-46) | + 47 | - 23 | - 32 | 102 |
| Very High (47-50) | + 37 | - 16 | - 26 | 79 |
| Total | 130 | 78 | 111 | 319 |
| $\chi^2 = 8.009$ | C = .16 | | P<.20 | |

TABLE E.9.--Relationship between knowledgeability score and marital status, 1962.

| Knowledgeability Score | Marital Status | | |
|---|---|---|---|
| | Married | Single | Total |
| Very Low (28-38) | - 18 | + 21 | 39 |
| Low (39-42) | - 25 | + 24 | 49 |
| High (43-46) | - 32 | + 30 | 62 |
| Very High (47-50) | + 35 | - 27 | 62 |
| Total | 110 | 102 | 212 |
| $\chi^2$ = 1.048 C = .07 | Non-significant | Unused - 3 | |

TABLE E.10.--Relationship between knowledgeability score and marital status, 1971.

| Knowledgeability Score | Marital Status | | |
|---|---|---|---|
| | Married | Single | Total |
| Very Low (28-38) | + 18 | - 34 | 52 |
| Low (39-42) | - 27 | + 56 | 83 |
| High (43-46) | - 31 | + 71 | 102 |
| Very High (47-50) | + 30 | - 45 | 75 |
| Total | 106 | 206 | 312 |
| $\chi^2$ = 1.884 C = .08 | Non-significant | Unused = 7 | |

TABLE E.11.--Relationship between knowledgeability score and community type, 1962.

| Knowledgeability Score | Community Type | | |
|---|---|---|---|
| | Farm or Country | City or Town | Total |
| Very Low (28-38) | - 8 | + 31 | 39 |
| Low (39-42) | - 8 | + 42 | 50 |
| High (43-46) | +17 | - 47 | 64 |
| Very High (47-50) | -13 | + 47 | 62 |
| Total | 46 | 169 | 215 |
| $\chi^2$ = 1.906 | C = .09 | Non-significant | |

TABLE E.12.--Relationship between knowledgeability score and community type, 1971.

| Knowledgeability Score | Community Type | | |
|---|---|---|---|
| | Farm or Country | City or Town | Total |
| Very Low (28-38) | +13 | - 42 | 55 |
| Low (39-42) | -15 | + 68 | 83 |
| High (43-46) | -17 | + 85 | 102 |
| Very High (47-50) | +18 | - 61 | 79 |
| Total | 63 | 256 | 319 |
| $\chi^2$ = 1.742 | C = .07 | Non-significant | |

TABLE E.13.--Relationship between knowledgeability score and community size, 1962.

| Knowledgeability Score | Community Size | | | Total |
|---|---|---|---|---|
| | 20,000 or less | 20,000-90,000 | 100,000 and over | |
| Very Low (28-38) | + 21 | + 9 | - 9 | 39 |
| Low (39-42) | + 26 | - 9 | + 15 | 50 |
| High (43-46) | + 34 | - 12 | + 18 | 64 |
| Very High (47-50) | - 28 | + 18 | - 16 | 62 |
| Total | 109 | 48 | 58 | 215 |
| $\chi^2 = 3.038$ | C = .16 | Non-significant | | |

TABLE E.14.--Relationship between knowledgeability score and community size, 1971.

| Knowledgeability Score | Community Size | | | Total |
|---|---|---|---|---|
| | 20,000 or less | 20,000-99,000 | 100,000 and over | |
| Very Low (28-38) | + 30 | - 13 | - 12 | 55 |
| Low (39-42) | - 32 | + 25 | + 26 | 83 |
| High (43-46) | - 38 | + 29 | + 35 | 102 |
| Very High (47-50) | + 45 | - 14 | - 20 | 79 |
| Total | 145 | 81 | 93 | 319 |
| $\chi^2 = 11.151$ | C = .11 | P<.10 | | |

TABLE E.15.--Relationship between knowledgeability score and suburban residence, 1962.

| Knowledgeability Score | Suburb? | | |
|---|---|---|---|
| | Yes | No | Total |
| Very Low (28-38) | + 8 | - 31 | 39 |
| Low (39-42) | +11 | - 39 | 50 |
| High (43-46) | - 9 | + 55 | 64 |
| Very High (47-50) | -11 | + 51 | 62 |
| Total | 39 | 176 | 215 |
| $\chi^2$ = 1.373 | C = .08 | Non-significant | |

TABLE E.16.--Relationship between knowledgeability score and suburban residence, 1971.

| Knowledgeability Score | Suburb? | | |
|---|---|---|---|
| | Yes | No | Total |
| Very Low (28-38) | - 19 | + 36 | 55 |
| Low (39-42) | + 37 | - 46 | 83 |
| High (43-46) | + 39 | - 63 | 102 |
| Very High (47-50) | - 23 | + 56 | 79 |
| Total | 118 | 201 | 319 |
| $\chi^2$ = 4.362 | C = .12 | P~.20 | |

TABLE E.17.--Relationship between knowledgeability score and friends mentally ill, 1962.

| Knowledgeability Score | Friends Mentally Ill? | | |
|---|---|---|---|
| | No | Yes | Total |
| Very Low (28-38) | +30 | 9 | 39 |
| Low (39-42) | +37 | 13 | 50 |
| High (43-46) | -37 | 27 | 64 |
| Very High (47-50) | -38 | 24 | 62 |
| Total | 142 | 73 | 215 |
| $\chi^2 = 6.028$ | C = .17 | P~.10 | |

TABLE E.18.--Relationship between knowledgeability score and friends mentally ill, 1971.

| Knowledgeability Score | Friends Mentally Ill? | | |
|---|---|---|---|
| | No | Yes | Total |
| Very Low (28-38) | +42 | -13 | 55 |
| Low (39-42) | +54 | -29 | 83 |
| High (43-46) | +67 | -35 | 102 |
| Very High (47-50) | -41 | +38 | 79 |
| Total | 204 | 115 | 319 |
| $\chi^2 = 8.831$ | C = .16 | P<.05 | |

TABLE E.19.--Relationship between knowledgeability score and family members mentally ill, 1962.

| Knowledgeability Score | Family Members Mentally Ill? | | |
|---|---|---|---|
| | No | Yes | Total |
| Very Low (28-38) | + 33 | + 6 | 39 |
| Low (39-42) | + 39 | + 11 | 50 |
| High (43-46) | - 48 | - 16 | 64 |
| Very High (47-50) | - 42 | - 20 | 62 |
| Total | 162 | 53 | 215 |
| $\chi^2 = 3.928$ | C = .13 | P<.20 | |

TABLE E.20.--Relationship between knowledgeability score and family members mentally ill, 1971.

| Knowledgeability Score | Family Members Mentally Ill? | | |
|---|---|---|---|
| | No | Yes | Total |
| Very Low (28-38) | + 43 | - 12 | 55 |
| Low (39-42) | - 58 | + 25 | 83 |
| High (43-46) | + 77 | - 25 | 102 |
| Very High (47-50) | - 54 | + 25 | 79 |
| Total | 232 | 87 | 319 |
| $\chi^2 = 2.319$ | C = .09 | Non-significant | |

# APPENDIX F

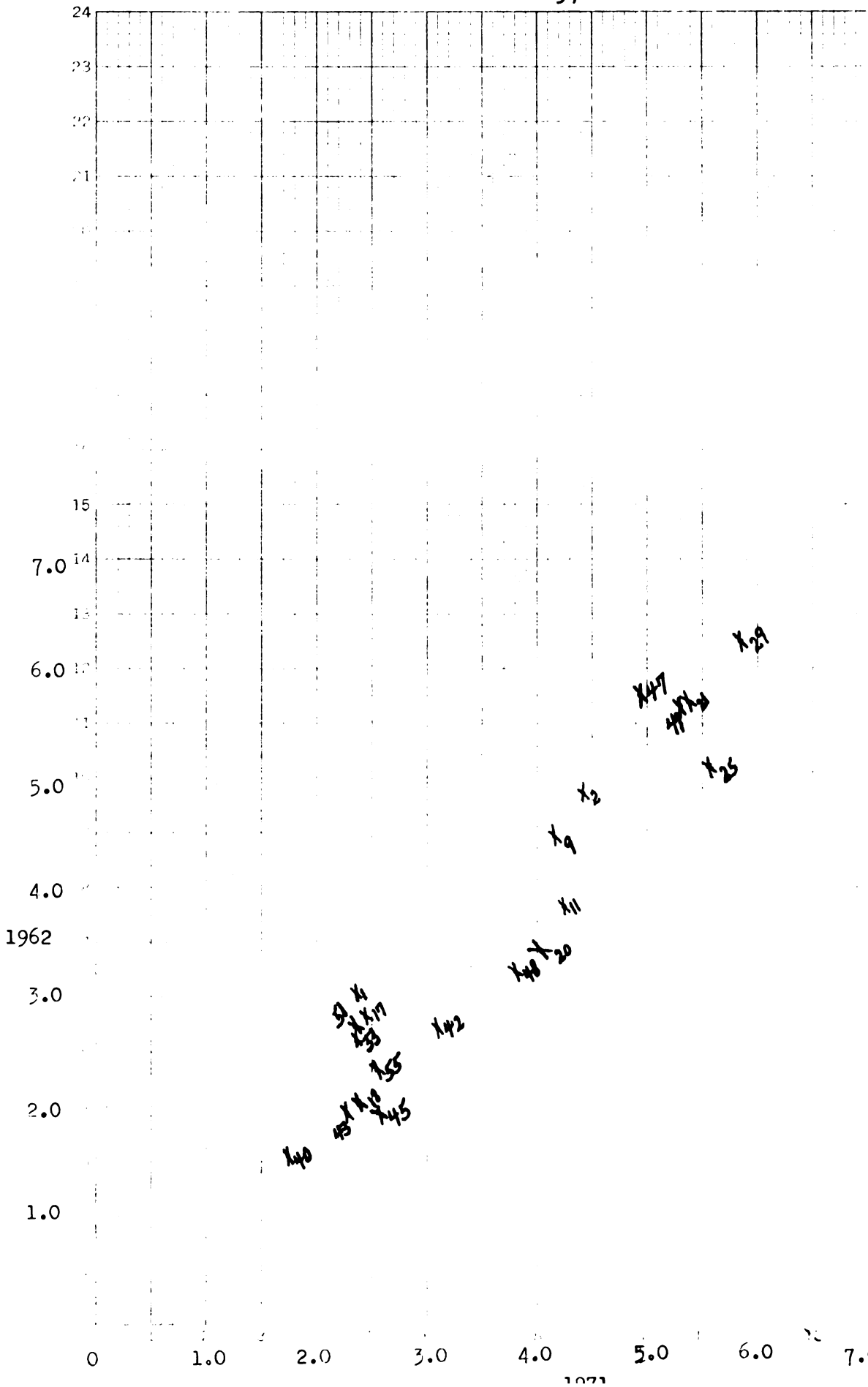
## MEAN DISTRIBUTION OF RESPONSES OBTAINED FROM FIFTY-SIX OPINION ITEMS, 1962 AND 1971

TABLE F.1.--Mean distribution of responses for fifty-six opinion items at Time I and Time II.

| 1962 | | 1971 | |
|---|---|---|---|
| Mean | Frequency | Mean | Frequency |
| 1.50 - 1.74 | 3 | 1.50 - 1.74 | 2 |
| 1.75 - 1.99 | 2 | 1.75 - 1.99 | 1 |
| 2.00 - 2.24 | 4 | 2.00 - 2.24 | 3 |
| 2.25 - 2.49 | 4 | 2.25 - 2.49 | 8 |
| 2.50 - 2.99 | 12 | 2.50 - 2.99 | 11 |
| 3.00 - 3.24 | 6 | 3.00 - 3.24 | 4 |
| 3.25 - 3.49 | 2 | 3.25 - 3.49 | 3 |
| 3.50 - 3.99 | 3 | 3.50 - 3.99 | 1 |
| 4.00 - 4.24 | 0 | 4.00 - 4.24 | 3 |
| 4.25 - 4.49 | 2 | 4.25 - 4.49 | 2 |
| 4.50 - 4.99 | 2 | 4.50 - 4.99 | 2 |
| 5.00 - 5.24 | 3 | 5.00 - 5.24 | 2 |
| 5.25 - 5.49 | 2 | 5.25 - 5.49 | 5 |
| 5.50 - 5.99 | 5 | 5.50 - 5.99 | 4 |
| 6.00 - 6.24 | 0 | 6.00 - 6.24 | 0 |
| 6.25 - 6.49 | 2 | 6.25 - 6.49 | 1 |
| | N = 56 | | N = 56 |

# APPENDIX G

## SCATTERGRAM: PLOTTING OF MEANS OBTAINED FROM TWENTY SIGNIFICANTLY DIFFERENT OPINION ITEMS, 1962 AND 1971


24
23
22
21
15
14
7.0
6.0
5.0
4.0
1962
3.0
2.0
1.0
0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
1971

# APPENDIX H

## CATEGORIES OF MENTAL HEALTH OPINION ITEMS: CONTENTS OF THE ITEMS, MEAN VALUES FOR 1962 AND 1971, AND VALUES OF T-STATISTIC

TABLE H.1.--Categories of mental health opinion items: Contents of the items, mean values for 1962 and 1971, and values of t-statistic.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| | **I. Causal** | | | | | |
| 1 | The best way to mental health is by avoiding morbid thoughts | Disagree | 3.01 | 2.34 | .64 | .01 |
| 4 | Nervous breakdowns seldom have a physical origin | Disagree | 3.18 | 3.13 | .05 | ... |
| 5 | The mentally ill have not received enough guidance from the important people in their lives | Agree | 4.38 | 4.53 | -.15 | ... |
| 13 | People who become mentally ill have little will power | Disagree | 2.70 | 2.63 | .07 | ... |
| 15 | Most mental disturbances in adults can be traced to emotional experiences in childhood | Agree | 4.72 | 4.75 | -.03 | ... |
| 17 | People who keep themselves occupied with pleasant thoughts seldom become mentally ill | Disagree | 2.81 | 2.44 | .37 | .01 |
| 20 | People cannot maintain good mental health without the support of strong persons in their environment | Disagree | 3.42 | 4.02 | -.60 | .01 |
| 30 | Mental disorder is usually brought on by physical causes | Disagree | 3.03 | 3.02 | .01 | ... |
| 36 | Almost any disease that attacks the nervous system is likely to bring on insanity | Disagree | 2.48 | 2.73 | -.25 | ... |

TABLE H.1.--Continued.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| 37 | If a person concentrates on happy memories he will not be bothered by unpleasant things in the present | Disagree | 2.16 | 2.12 | .04 | ... |
| 38 | Mental health is a matter of trying hard to control the emotions | Disagree | 2.83 | 2.84 | -.01 | ... |
| 56 | A person cannot rid himself of unpleasant memories by trying hard to forget them | Agree | 4.96 | 5.22 | -.26 | ... |
| | II. Recovery (Cure, Prognosis) | | | | | |
| 8 | Helping the mentally ill person with his financial and social problems often improves his condition | Agree | 5.00 | 5.00 | .00 | ... |
| 9 | Mental patients usually make good adjustments to society when they are released | Agree | 4.49 | 4.16 | .33 | .01 |
| 18 | Few people who enter mental hospitals ever leave | Disagree | 2.04 | 2.39 | -.35 | .01 |
| 21 | Will power alone will not cure mental disorders | Agree | 5.70 | 5.37 | .33 | .01 |
| 24 | Mental illness can usually be helped by a vacation or change of scene | Disagree | 3.05 | 3.16 | -.11 | ... |
| 28 | Mental disorder is not a hopeless condition | Agree | 6.32 | 6.31 | .01 | ... |
| 32 | A change of climate seldom helps an emotional disorder | Agree | 3.88 | 4.13 | -.25 | ... |

TABLE H.1.--Continued.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| 40 | There is not much that can be done for a person who develops a mental disorder | Disagree | 1.53 | 1.74 | -.21 | .05 |
| 49 | Many of the people who go to mental hospitals are able to return to work in society again | Agree | 5.69 | 5.30 | .39 | .01 |
| | III. Seriousness | | | | | |
| 2 | Mental disorder is one of the most damaging illnesses that a person can have | Agree | 4.86 | 4.41 | .45 | .01 |
| 7 | The seriousness of the mental health problem in this country has been exaggerated | Disagree | 2.00 | 2.04 | -.04 | ... |
| 23 | Emotional problems do little damage to the individual | Disagree | 1.71 | 1.81 | -.10 | ... |
| 29 | Mental health is one of the most important national problems | Agree | 6.25 | 5.85 | .40 | .01 |
| 44 | Few of the people who seek psychiatric help need the treatment | Disagree | 2.57 | 2.57 | .00 | ... |
| 55 | People who go from doctor to doctor with many complaints know that there is nothing really wrong with them | Disagree | 2.35 | 2.63 | -.28 | .05 |

TABLE H.1.--Continued.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| | **IV. Role of Psychiatrist** | | | | | |
| 10 | The good psychiatrist acts like a father to his patients | Disagree | 2.86 | 2.92 | -.06 | ... |
| 27 | Psychiatrists try to show the mental patient where his ideas are incorrect | Disagree | 3.62 | 3.68 | -.06 | ... |
| 33 | The main job of the psychiatrist is to recommend hobbies and other ways for the mental patient to occupy his mind | Disagree | 2.60 | 2.36 | .24 | .05 |
| 34 | Psychiatrists try to teach mental patients to hold in their strong emotions | Disagree | 2.26 | 2.27 | -.01 | ... |
| | **V. Age: Children** | | | | | |
| 3 | Children sometimes have mental breakdowns as severe as those of adults | Agree | 5.70 | 5.64 | .06 | ... |
| 25 | Disappointments affect children as much as they do adults | Agree | 5.10 | 5.55 | -.45 | .01 |
| 46 | If a child is jealous of a younger brother it is best not to let him show it in any way | Disagree | 2.06 | 2.14 | -.08 | ... |
| 47 | Early training will not make the child's brain grow faster | Agree | 5.76 | 4.91 | .85 | .01 |

TABLE H.1.--Continued.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| 50 | Children do not usually forget about frightening experiences in a short time | Agree | 5.28 | 5.35 | -.07 | ... |
| 51 | Disappointments do not affect children as much as they do adults | Disagree | 2.72 | 2.34 | .38 | .01 |
| 53 | Good emotional habits cannot be taught to children in school as easily as spelling can | Agree | 4.68 | 4.62 | .06 | ... |
| | **VI. Age: Older** | | | | | |
| 11 | Early adulthood is more of a danger period for mental illness than later years | Agree | 3.82 | 4.25 | -.43 | .01 |
| 19 | Older people have few emotional problems than younger people | Disagree | 2.88 | 2.89 | -.01 | ... |
| 52 | Most of the insanity cases are found in people over fifty years of age | Disagree | 2.80 | 2.67 | .13 | ... |
| | **VII. Men-Women** | | | | | |
| 6 | Women are as emotionally healthy as men | Agree | 5.47 | 5.25 | .22 | ... |
| 14 | Women are more likely to develop mental disorders than men | Disagree | 2.93 | 2.93 | .00 | ... |
| 22 | Women have more emotional problems than men do | Agree | 4.62 | 4.62 | .00 | ... |

TABLE H.1.--Continued.

| No. | Item | Agree Disagree | Mean 1962 | Mean 1971 | Diff. '62-'71 | Sig. Level |
|---|---|---|---|---|---|---|
| 31 | It is easier for women to get over emotional problems than it is for men | Disagree | 3.11 | 3.09 | .02 | ... |
| | **VIII. Symptoms** | | | | | |
| 12 | You can tell a person who is mentally ill from his appearance | Disagree | 1.68 | 1.72 | -.04 | ... |
| 16 | The mentally ill pay little attention to their personal appearance | Disagree | 3.30 | 3.25 | .05 | ... |
| 26 | The insane laugh more than normal people | Disagree | 2.53 | 2.50 | .03 | ... |
| 39 | Most of the people in mental hospitals speak in words than can be understood | Agree | 5.23 | 5.32 | -.09 | ... |
| 45 | Most people can recognize the type of person who is likely to have a nervous breakdown | Disagree | 1.98 | 2.55 | -.57 | .01 |
| 54 | The eyes of the insane are glassy | Disagree | 2.88 | 2.26 | -.02 | ... |
| | **IX. Miscellaneous** | | | | | |
| 35 | X-rays of the head will not tell whether a person is likely to become insane | Agree | 5.76 | 5.67 | .09 | ... |
| 41 | Most clergymen will encourage a person with a mental disorder to see a psychiatrist | Agree | 4.93 | 4.78 | .15 | ... |

TABLE H.1.--Continued

| No. | Item | Agree Disagree | Mean | | Diff. | Sig. Level |
|---|---|---|---|---|---|---|
| | | | 1962 | 1971 | '62-'71 | |
| 42 | Feebleminded children are less obedient than normal children | Disagree | 2.70 | 3.10 | -.40 | .01 |
| 43 | Most people who "go crazy" try to kill themselves | Disagree | 1.97 | 2.27 | -.30 | .01 |
| 48 | Most suicides occur because of rejection in love | Disagree | 3.23 | 3.80 | -.57 | .01 |

# APPENDIX I

## STANDARD DEVIATION FOR FIFTY-SIX OPINION ITEMS, 1962 and 1971

TABLE I.1.--Standard deviation for opinion items, 1962 and 1971.

| Item No. | Standard Deviation | | Item No. | Standard Deviation | |
|---|---|---|---|---|---|
| | 1962 | 1971 | | 1962 | 1971 |
| 1 | 1.67 | 1.41 | 29 | 1.20 | 1.22 |
| 2 | 1.94 | 1.94 | 30 | 1.35 | 1.18 |
| 3 | 1.49 | 1.46 | 31 | 1.36 | 1.39 |
| 4 | 1.66 | 1.61 | 32 | 1.51 | 1.49 |
| 5 | 1.63 | 1.52 | 33 | 1.43 | 1.28 |
| 6 | 1.68 | 1.75 | 34 | 1.42 | 1.36 |
| 7 | 1.30 | 1.17 | 35 | 1.72 | 1.78 |
| 8 | 1.44 | 1.30 | 36 | 1.56 | 1.51 |
| 9 | 1.21 | 1.23 | 37 | 1.23 | 1.17 |
| 10 | 1.50 | 1.35 | 38 | 1.60 | 1.60 |
| 11 | 1.64 | 1.60 | 39 | 1.61 | 1.60 |
| 12 | .97 | 1.12 | 40 | .89 | .99 |
| 13 | 1.59 | 1.58 | 41 | 1.72 | 1.53 |
| 14 | 1.61 | 1.66 | 42 | 1.51 | 1.43 |
| 15 | 1.44 | 1.35 | 43 | 1.20 | 1.19 |
| 16 | 1.46 | 1.44 | 44 | 1.59 | 1.39 |
| 17 | 1.48 | 1.27 | 45 | 1.24 | 1.41 |
| 18 | 1.17 | 1.28 | 46 | 1.14 | 1.10 |
| 19 | 1.55 | 1.44 | 47 | 1.76 | 1.84 |
| 20 | 1.64 | 1.50 | 48 | 1.66 | 1.69 |
| 21 | 1.35 | 1.34 | 49 | 1.29 | 1.30 |
| 22 | 1.74 | 1.74 | 50 | 1.56 | 1.43 |
| 23 | .91 | 1.05 | 51 | 1.66 | 1.34 |
| 24 | 1.54 | 1.49 | 52 | 1.28 | 1.23 |
| 25 | 1.80 | 1.47 | 53 | 1.87 | 1.82 |
| 26 | 1.38 | 1.22 | 54 | 1.35 | 1.28 |
| 27 | 1.78 | 1.67 | 55 | 1.32 | 1.45 |
| 28 | 1.16 | .91 | 56 | 1.76 | 1.59 |