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An Attitude Scale for the Assessment of Morale in a Psychiatric Hospital

William Gregory Klett
Loyola University Chicago

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AN ATTITUDE SCALE FOR THE ASSESSMENT OF MORALE
IN A PSYCHIATRIC HOSPITAL

by
William Gregory Klett

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment of
the Requirements for the Degree of
Doctor of Philosophy

January

1963

LIFE

William Gregory Klett was born on December 9, 1929, in St. Paul, Minnesota. In 1947 he was graduated from Cretin High School in St. Paul, and in 1951 he received the degree of Bachelor of Arts from the College of St. Thomas, also in St. Paul.

From 1952 to 1954 the author was a member of the armed forces, serving as a personnel management specialist for the 9829th Technical Service Unit, United States Army Corps of Engineers. Following his honorable separation from the Army he was employed as a merchandiser and auditor by Montgomery Ward and Company. He began his graduate studies at Loyola University in February, 1955, and received the degree of Master of Arts in February, 1958.

From 1956 to 1960 the author was a psychologist on the staff of the Catholic Charities Guidance Center, Chicago, Illinois. In September, 1960, he resigned from Catholic Charities and became a trainee in the Veterans Administration training program for clinical psychology. Since entering the program he has received training at Hines and Downey Veterans Administration hospitals.

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CHAPTER I

Interest in the social dimension of the mental hospital has been increasing steadily since World War II. The reports of psychiatrists who had witnessed the strong influence of social forces upon the recovery of armed forces personnel hospitalized for psychiatric conditions (Bridges, 1943; Michaels, 1947; Jones, 1953) stimulated considerable enthusiasm in this area. The findings of social scientists interested in the organization and social structure of mental hospitals and in their effect upon the behavior and clinical course of the patient generated further interest. The studies of Stanton and Schwartz (1949; 1950; 1954), Rapoport (1956; 1957), Caudill (1958), and Parker (1958; 1959), to name but a few, documented the interrelatedness of actions in the mental hospital and illustrated how administrative actions and interpersonal relations effect the progress of patients. These findings and parallel developments in the field of ego psychology (Hartman, 1951) and socio-cultural theory (Gillen, 1955; Merton, 1957) underlie the dramatic changes which are occurring in mental hospitals.

A general trend away from custodial management and toward humanistic patient care is evident in the current literature dealing with mental hospitals. Greater freedom of movement is being given to patients (Bell, 1955; Bloom, 1956). New channels of communication are being opened (De Rosier & Campbell, 1958). Responsibility for the rehabilitation of patients is being given to non-professional hospital workers (Briggs, 1957; Greenblatt, 1955).

The use of sedatives, restraints, and seclusion rooms has been drastically curtailed (Briggs, 1958; Wilmer, 1957).

In addition to the above changes, there have been a few complete reorganizations of large federal and state hospitals (Buck & Lawton, 1961; Bower & Garcia-Bunnell, 1962; Cole, 1962). All of these changes have involved decentralization in an effort to facilitate the establishment and maintenance of interpersonal relations in the hospital as well as to make way for closer ties with the communities from which patients come and to which it is hoped they can return. It is noteworthy that the reorganization at Clarinda, Iowa, met with such public disfavor and staff resistance that the hospital has since returned to its former mode of operation. The plan at Pueblo, Colorado, is now encountering some public opposition (Anonymous, 1962; Osborne, 1962), but hospital personnel and the governor of the state are supporting the changes.

Concurrent with the recent developments cited above have been a number of recommendations for revisions in the training of psychiatric residents and in the psychotherapeutic model which guides most mental hospitals. Jones (1962) has criticized the traditional training programs for psychiatric residents, indicating that they are geared more to the needs of private practice than of mental hospitals. He sees the psychiatric ward as a social organization or culture which can be modified by socio-psychological processes to the therapeutic advantage of patients and ward personnel alike. Sensitivity to the social dimension, which can be gained by the resident trained in the examination of roles and role relationships on the ward, is regarded by Jones as a primary requisite for utilizing the environment in psychiatric treatment.

Vaughn (1962) has recommended a profound social reorientation in mental hospitals; he urges an acceptance of the sociotherapeutic model wherein all of a patient's contacts are considered potentially therapeutic and opposes what he calls the current psychotherapeutic model. The latter model is characterized by a high regard for intensive individual psychotherapy and a view of personnel other than therapists as peripheral and ancillary.

In general, the foregoing material illustrates the current emphasis which is being placed on what might be called socio-psychological processes. It is implicitly assumed by a large number of contemporary social scientists that human behavior, especially pathological behavior, is, for the most part, a function of the social situation in which it occurs. The influence of Harry Stack Sullivan's thinking (1931a; 1931b) is apparent. Disordered psychological functioning is now more than ever viewed as a disturbance in interpersonal relations. The "environmentalist" carries greater weight today, and he sees the manipulation of social settings and groups as the most effective kind of psychotherapy. A minority of individuals, notably Herzberg and Hamlin (1961) and Wing (1962), maintain that mental illness and environment are logically distinct and that each may vary independently of the other.

A notable development in the field of social psychiatry is the "therapeutic community". This treatment ideology is based on the assumption that personality disorders are, for the most part, caused by adverse environmental circumstances which prevent or interrupt normal personality development. Hence, the treatment and rehabilitation process consists in exposing such individuals to a permissive and understanding social milieu in which reality

testing is emphasized. The equalitarian-democratic aspect of the community facilitates self-awareness, self-control, and social recovery by fostering significant relationships with others, by abandoning privileged communication, and by emphasizing communal confrontation (Rapoport, 1960). Community methods of treatment have been used with disturbed children and adolescents (Aichhorn, 1935; Bettelheim, 1950; Redl & Wineman, 1952), with neurotic ex-prisoners of war (Bridges, 1943), with psychopaths (Taylor, 1949), with adult personality disorders of the anti-social type (Jones, 1953; 1957), and with various types of psychiatric cases (Jones & Mathews, 1956). The results of this approach have been generally favorable, but reports deal mostly with the changes and progress being made within individual treatment settings (Wilmer, 1956; 1957; 1958; Briggs, 1958). Definitive findings are meagre, and systematic means of following patients exposed to this kind of treatment have yet to be developed. Perhaps, the most significant finding reported is that if treatment lasts less than six months, then length of stay is immaterial to adjustment a year after discharge; Rapoport (1960) reported in a follow-up study of patients treated at the Social Rehabilitation Unit of Belmont Hospital in England that fifty-two percent of the people who were in treatment for almost seven months or longer are improved a year later, while only about one-third of all others were rated similarly.

This study is concerned with the development and standardization of a methodology for examining one aspect of the social dimension of the mental hospital. Specifically, it deals with the construction of an attitude scale for measuring and comparing the attitudes of psychiatric patients toward the particular hospital wards to which they are assigned. A first research aim

was to determine whether or not patients differ in favorableness of regard for their wards and, if so, what the pertinent areas of agreement and disagreement are. A second aim was to develop a statistically reliable and valid instrument which would be capable of eliciting clear differences of attitude toward the ward. In keeping with the latter aim, a third goal was to determine whether a significant change in attitude, as measured by the scale, occurs as a result of exposure to a therapeutic community type of hospital treatment in an experimental hospital ward.

The above research aims led to the formulation of the following hypotheses with which the present study is primarily concerned:

1. If the research instrument is a reliable attitude scale, there will be a high correlation between scores obtained by the same individual on two halves of the scale. Specifically, if the attitude scale consists of statements which are interdependent and homogeneous, a high coefficient of internal consistency will be obtained when the scores of respondents on the even numbered statements of the scale are correlated with their scores on the odd numbered statements. Implicit in this proposition is the corollary that covariation among responses is assumed to be related to the variation of an underlying variable (Green, 1954).

2. If the research instrument is a reliable attitude scale, there will be a high correlation between scores obtained by the same individual on two separate occasions, the period of time between administrations of the scale being approximately two weeks. Specifically, if scores obtained on the scale are stable, a high coefficient of stability will be obtained when the scores of respondents on two separate administrations of the scale are correlated.

It is assumed in this proposition that no event of any real consequence will occur in the interim between administrations so as to alter the attitudes of the respondents.

3. If the research instrument is a valid measure of patients' attitudes toward their wards, then the mean score of a group of patients who have been exposed to a therapeutic community type of ward situation should be significantly higher than the mean score of the same group before exposure to this form of treatment. It is assumed in the above hypothesis that the experiences which these patients undergo in the experimental situation will be favorable and will facilitate changes in attitude in that direction. Implicit in this proposition is the corollary that validity refers to the extent to which the scale assesses the variable it was designed to measure.

It was thought that this project would be of value in several respects. It should reveal some quantitative data regarding aspects of the ward situation which patients consider important, thereby complementing existent data obtained by direct questioning and participant observation. Also, the ease and speed with which such a scale could be administered should make it possible to study and compare large groups of patients. Further, the scale should provide social scientists, research personnel of psychiatric hospitals, or hospital administrators with a convenient means of determining the effects of changes in treatment procedures, in hospital policies, in personnel, etc., upon the morale of patients. For the suspicious or quiet patient who feels reluctant to speak openly, for example, during a patient council meeting, this scale would serve as a means of communication, "a gripe sheet," between him and hospital personnel. It could be used as a way of identifying areas of

conflict on a given ward and, possibly, of predicting such phenomena as treatment outcome, elopement, and length of hospitalization required.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

A review of the psychological literature revealed a number of publications which are relevant to the present study. Some of them deal explicitly with the attitudes of psychiatric inpatients toward different features of the hospital setting, while others are concerned with the relationship of hospital or ward morale to therapeutic outcome. They differ from the present study in terms of either purpose, population studied, method, or research design. There are a number of additional publications in the literature which relate to the present study in a more general way; they are concerned with the notions of attitude and morale or with the measurement of these phenomena. For the purpose of clarity, the related literature will be presented and reviewed under two general headings, one dealing with morale and the other with attitude.

Morale

The importance of ward or hospital morale has been attested to by several writers (Klemes, 1951; Michaels, 1947; Todd & Wittkower, 1948). All three of their reports are anecdotal accounts of personal experiences in various treatment settings. They describe and suggest ways of improving morale, but they fail to offer any definitions of the term and they report no quantitative results.

Stanton and Schwartz (1954) devote an entire chapter to "Morale and its Breakdown" in their study of the mental hospital. They likewise make no attempt

to define morale, referring to it as "one of the nonspecific social factors in treatment" (p. 415). Nevertheless, as participant observers they went ahead and studied morale. They conceived of a continuum for noting shifts in morale, ranging from a collaborative level through the cooperative level to the disintegrative level. They found that different individuals usually could agree on which level was operative in terms of how a given patient or hospital employee was carrying out his hospital role. Using this technique, they were able to record some severe individual and collective disturbances which arose and gained momentum during the three week course of an administrative problem. It is noteworthy that what was originally a staff conflict over the economic needs of the hospital as opposed to its therapeutic aims soon affected most, if not all, the members of the institution. This study has been widely publicized and similar situations are now regarded as illustrations of "the Stanton and Schwartz effect." Stanton and Schwartz's study is interesting and informative, but it is difficult to evaluate the completeness and objectivity of data which is collected by means of participant observation. Also, it is impossible to quantify their data for purposes of comparison with other groups. Finally, their study was carried out in one small ward of a small exclusive mental hospital;¹ it is unlikely that they could have chosen a more unrepresentative hospital and group of subjects for study.

The publications cited thus far indicate the extent to which patient morale has been studied in mental hospitals. Other studies, which will be reviewed in the second section of this chapter, provide some additional data on this subject, but only indirectly so. The paucity of studies in this area appears to be a result of the conceptual disagreement which surrounds the

concept of morale.

Several attempts have been made to clarify the notion of morale. Sletto (1937) was among the first to think of morale as a composite of several variables, rather than a single unit variable. He developed a Likert-type morale scale with which he hoped to isolate one or more of these variables. He reported split-half and test-retest reliability coefficients of .72 and .61, respectively, based on a sample of 50 subjects. Having obtained higher reliability coefficients on other personality scales, which he constructed and administered to the same group, Sletto concluded that morale is a less stable phase of personality than the others. His morale scale is a highly generalized one; high morale is equated with optimism, low morale with pessimism. Although the statements are phrased impersonally, they are so obviously inter-related and so highly personal that they make respondents aware of what it is that is being measured. Such an awareness causes respondents to become defensive and produces neutral attitudes. In Sletto's scale, the Psychological object under study is, in effect, the respondent himself.

In 1940 a group of psychologists made another attempt to clarify the term morale (National Research Council, 1940). They reviewed the many ways in which morale had been used and proposed three definitions which they believed would be helpful in guiding future study.

"I. (The individual-organic emphasis.) The term morale refers to a condition of physical and emotional well-being in the individual that makes it possible for him to work and live hopefully and effectively, feeling that he shares the basic purpose of the groups of which he is a member; and that makes it possible for him to perform his tasks with energy, enthusiasm, and self-discipline, sustained by a conviction that, in spite of obstacles and conflict, his personal and social ideals are worth pursuing.

- II. (The group emphasis.) Morale refers to the condition of a group where there are clear and fixed group goals (purposes) that are felt to be important and integrated with individual goals; where there is confidence in the attainment of these goals, and subordinately, confidence in the means of attainment, in the leaders, associates, and finally in oneself; where group actions are integrated and cooperative; and where aggression and hostility are expressed against the forces frustrating the group rather than toward other individuals within the group.
- III. (Emphasis on individual-within-the-group on any specific occasion.) Given a certain task to be accomplished by the group, morale pertains to all factors in the individual's life that bring about a hopeful and energetic participation on his part so that his efforts enhance the effectiveness of the group in accomplishing the task in hand." (National Research Council, 1940)

Although these definitions neatly condense the numerous usages to which morale has been put, they suffer from the limitations inherent in any abstraction. Not all studies of morale can be said to belong exclusively to one category or the other. There is much overlapping, and individual investigators continue to go their separate ways. They either propose their own definitions, or they avoid the issue entirely. Campbell (1955), for example, studied the morale of several submarine crews in terms of which were "happiest", but did not formalize even an operational definition.

The most recent attempt at clarification of the term morale leaves much to be desired.

"Morale is to be conceived of as a characteristic of behavior. Its nature and quality is to be judged against a prototype pattern of dynamic progression. That pattern is biologically and socially rooted and determined." (Galdston, 1958, p. 257)

This definition of morale, arrived at through the combined efforts of a large number of social scientists interested in "communication," communicates so little by way of meaning and subsumes so much that one can see why morale has not become a matter of general concern to psychologists as Child (1941) long

ago had hoped it would. One writer (Roethlisberger, 1949) has expressed hope that in time the term morale will drop from the vocabulary and that in its place will be substituted effective classifications of human situations and skillful methods of handling them. Morale studies continue to be restricted to special groups, primarily industrial workers (Baehr, 1958; Guion, 1958) and armed forces personnel (Learner, 1954; Toch, 1957; Willingham, 1958).

McNemar (1946) has proposed an ambitious program whereby, he believes, order could be brought into this field of research. Basically, he sees two things which need to be accomplished: "the determination of the dimensions of morale and the construction and validation of scales for measuring these dimensions" (1946, p. 365). McNemar proposes starting with carefully defined postulated components of morale, constructing unidimensional scales for measuring them, and using stratified sampling procedures for determining inter-scale correlations. Then, factor analysis techniques could be used to determine the number of factors underlying the various aspects of morale. Finally, McNemar recommends the construction of scales for measuring the obtained factors, validity studies, and research designed to uncover the psycho-social correlates of the several "morales."

The present study is concerned with the first two aspects of McNemar's proposal. A unidimensional scale was constructed in an effort to measure one component of morale in the psychiatric hospital. Favorableness of regard for the ward was postulated as being a component of morale in this setting. High morale was equated with a favorable attitude toward the ward and low morale with an unfavorable attitude toward the ward. This use of the term morale is similar to the one proposed by Campbell (1955) and referred to previously.

It is explicit in comparison to, for example, the one proposed by Galdston *et al.* (1958), and it lends itself to empirical investigation whereas the definitions of morale proposed by the National Research Council (1940) do not. Further, this postulate makes possible the construction of a unidimensional attitude scale which in its developmental stages could include statements dealing with the kinds of interpersonal relationships which Klemes (1951), Michaels (1947), Todd and Wittkower (1948), and Stanton and Schwartz (1954) refer to when they stress the importance of, but do not define, morale.

Attitude

In the first part of this section the concept of attitude and methods for measuring attitudes will be discussed. In the second part, several studies of the attitudes of psychiatric inpatients will be summarized.

The concept of attitude has been a matter of concern to social scientists for at least a century. Spencer (1862) is supposed to have been the first "psychologist" to use the term, according to Allport (1935). Another historian (Cardno, 1955) gathered together the available definitions of attitude, found a common-denominator, "directionality," and set about tracing the emergence of this concept from pre-experimental thinking. He credits D. Defoe, the author of Robinson Crusoe, as being the first to include affective components and the characteristic of directionality in describing posture (attitude).

Allport (1935) covers subsequent developments of the notion of attitude. In reviewing sixteen definitions of attitude, he found that preparation or readiness for response was an essential characteristic of them. Hence, in formulating a definition of his own, attitude became

"a mental and neural state of readiness, organized through

experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related." (Allport, 1935, p. 810)

A few years later Nelson (1939) reviewed and criticized definitions of attitudes from thirty sources. Among those definitions he found twenty-three characterizations of attitudes.

1. Organic drives.
2. Purposes.
3. Motives.
4. A "core of affect."
5. The emotional concomitants of action.
6. Permanently felt dispositions.
7. A special case of pre-disposition.
8. Generalized conduct.
9. A neural set. A Neuro-muscular set.
10. A stabilized set.
11. A state of readiness.
12. A disposition modifying arising experience.
13. Verbal responses for or against a psychological object.
14. Socially controlled behavior of an enduring type.
15. A response which is more obviously a function of disposition than of the immediate stimulus.
16. The result of organization of experience.
17. A directive or dynamic influence on the response to which related.
18. A determiner of the direction of an activity.
19. A guide for conduct. A point of reference for new experience.
20. A trial response--substitute behavior.
21. A way of conceiving an object. A posture of consciousness.
22. "A sum total" of inclinations, feelings, notions, ideas, fears, prejudices, threats, and convictions about any specific topic.
23. An integration of the specific responses into a general set." (Nelson, 1939, p. 380)

He recognized that some of these characterizations are duplicates and others are so general that their inclusion under the term attitude would not facilitate understanding. Hence, he eliminated some of the characterizations and formulated the following definition.

"An attitude may be considered a felt disposition arising from

the integration of experience and innate tendencies which disposition modifies in a general way the responses to psychological objects." (Nelson, 1939, p. 381)

Nelson's definition is almost an equivalent of Allport's, suggesting that no one, including Nelson, had been able to add anything of importance to the common elements which Allport culled from the sixteen definitions he reviewed and upon which he based his definition.

In recent years a number of definitions of social attitudes have been proposed. Krech and Crutchfield define attitude as

"...an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world." (Krech and Crutchfield, 1948, p. 152)

In a similar vein, Campbell (1950) has offered this definition of attitude:

"An individual's social attitude is an enduring syndrome of response consistency with regard to (a set of) social objects." (Campbell, 1950, p. 31)

In all of the definitions which have been presented and in others which have been or are current in American social psychology, there is an implied or explicit emphasis upon readiness to respond. One can trace this emphasis through Allport, the physiological experiments he reviewed (Allport, 1935), the British associationists, and even to Robinson Crusoe!

The concept of attitude is currently regarded as a hypothetical or latent variable which refers to a large number of related acts or responses (Stouffer et al., 1950), although there is a sizeable contingent of social scientists that views it otherwise (Duijker et al., 1961). The theme that the concept of attitude is a consistency among responses to a specified set of stimuli, or social objects, implies that an attitude governs, or mediates, or predicts, or

is shown by a variety of responses to specified stimuli (Green, 1954, pp. 335-336). The latent attitude is defined in terms of the correlations which exist between responses, and covariation among responses is associated with the variation of an underlying variable. This theoretical framework makes possible the equating of an attitude with the responses which constitute it.

Attitude measurement, then, requires the obtaining of statements, or as they are sometimes called, questions, that will represent in a particular scale the class of all possible statements that can be made about the psychological object of interest. It is necessary to assume that there will be differences in the belief and disbelief systems of respondents with favorable attitudes toward the object and respondents with unfavorable attitudes. Statements that are factual or that might be perceived as factual belong to one subclass of statements that is eliminated from the pool of potential statements because of the possibility that they are equally likely to be agreed with by respondents with favorable attitudes and by those with unfavorable attitudes (Edwards, 1957).

A collected set of potential statements for an attitude scale may be submitted to a group of judges who are asked to rate the degree of favorableness or unfavorableness indicated by each statement. The scale values of the statements on a psychological continuum are obtained on the basis of the combined ratings and used in scoring the responses of subjects to the statements. The methods of paired comparisons (Thurstone, 1927), equal-appearing intervals (Thurstone and Chave, 1929), and successive intervals (Hevner, 1930) involve the utilization of judges and provide scale values for each statement of the attitude scale.

An attitude scale may be developed by submitting a set of collected statements to respondents and requesting them to indicate the extent of their agreement or disagreement with them. Those statements which are most effective in differentiating between respondents with favorable and those with unfavorable attitudes toward the object are retained in constructing attitude scales of the summated ratings (Likert, 1932) and cumulative (Guttman, 1944) types.

Edwards (1955) and Edwards and Kilpatrick (1948) have proposed techniques for the construction of attitude scales that involve both scaling and response methods.

Other psychological scaling methods for assessing attitudes have been proposed and are being developed, but have not been used in developing attitude scales to the extent that the methods outlined above have. Also, methods of direct questioning, observation, participant-observation, and rating scales have been used in investigating attitudes, but not to the extent that unidimensional attitude scales have either because they require extensive time or because they produce results which are of questionable objectivity and completeness.

The method of summated ratings was chosen for developing and constructing the attitude scale utilized in the present study for several reasons. It was thought that this method would be simpler and easier to apply than the methods which involve use of a judging group, a presumption which is no longer believed to have been accurate. Second, Thurstone's (Thurstone and Chave, 1929) assumption that ratings of attitude statements in the method of equal-appearing intervals are independent of the attitudes of judges has been contradicted by experimental evidence (Upshaw, 1962), suggesting that methods which involve

judges might eliminate as "ambiguous" certain potentially discriminative statements before respondents had an opportunity to rate them. Third, following McNemar's (1946) suggestion, it seemed that a combination of the summated ratings method and an appropriate scaling technique would produce an attitude scale which would be better than one based on either method alone.

Related Studies

The attitudes of psychiatric inpatients toward various aspects of mental hospitals have been investigated by several students. Hatch (1948) interviewed 100 patients, primarily from convalescent wards, regarding their attitudes toward certain features of the hospital system. She uncovered distresses and discomforts imposed by the hospital system which patients had found difficult to communicate through regular channels. Her findings did much to stimulate the modification of the pattern at Boston Psychopathic Hospital. It is difficult to evaluate the objectivity and completeness of Hatch's findings because they were obtained by means of interview. Her data are peculiar to the setting in which they were gathered and difficult to quantify for purposes of comparison.

Soules (1955) was similarly interested in learning how psychiatric inpatients feel about mental hospitals. She surveyed the literature and found no scale of attitudes toward mental hospitals and no study on the attitudes of mental patients toward mental hospitals. She apparently overlooked the inquiry of Hatch (1948). She developed an equal-appearing interval attitude scale toward mental hospitals, following procedures outlined by Thurstone (1929). She applied the scale to two samples of male mental hospital patients and found that patients on admission and active convalescent wards expressed

significantly more favorable attitudes than patients on chronic or semi-convalescent wards. No significant differences were found: among attitude scores of patients in the various diagnostic categories; between attitudes and patients' ages; between the total samples or between comparable wards in the two hospitals. Also, the correlation of length of hospitalization with attitude scores was not significant. She recommended that further investigations of attitudes be directed toward other variables, one of them being the ward situations themselves. She thought that an attitude scale such as hers might help hospitals assess patient morale.

There are several basic differences between Souelex's investigation and the present study. Souelex was interested in patient attitudes toward "mental hospitals," a more generic psychological object than "the ward," which is the basic unit in the organizational structure of most mental hospitals. Hence, all but two of her 72 statements contain the words, "mental hospital(s)", and they have little to do with the inter-patient and patient-staff relationships which are basic elements in the total milieu of a ward. She apparently used the intuitive method in writing her statements, rather than collecting them by empirical methods; perhaps, this is how she came to overlook the important subclass of interpersonal relationships. Her "irrelevant" items were eliminated by judges without ever having been administered to test their discriminatory value. The Likert method (Edwards, 1957; Likert, 1932), used in constructing the attitude scale for the present study, is better suited for the empirical testing of a statement's discriminatory power.

Klopper, Wylie, and Hillson (1956) attempted to determine whether groups may be distinguished from one another in terms of their overall attitude toward

mental hospitals, as well as their particular attitudes toward mental hospitals as derived from an item analysis of the Soulelem scale. They administered Soulelem's scale to six groups of subjects who seemed to have varying degrees of familiarity with a mental hospital setting. One of these groups consisted of 33 psychiatric inpatients, 17 being on an intensive treatment service and 16 on chronic wards. The other groups consisted of, clerical employees and ward attendants. The investigators found that Soulelem's scale can distinguish certain non-patient groups from one another. With respect to the patients, a comparison failed to reveal any significant differences between the two patient groups. The latter finding is not surprising; the patients were on different wards, for that matter different kinds of wards, but they were all in the same hospital and they were agreeing or disagreeing with general statements about the mental hospital, not about wards. In fact, the statements in the Soulelem scale are so phrased that they can be administered to either patients or non-patients. The patient group had generally unfavorable attitudes, a finding which differs markedly from the favorableness of attitude which Soulelem found in her patients. This difference probably stems in part from Soulelem's not having tested anonymously.

Libo (1957) has developed an instrument for measuring patient-therapist attraction. He uses four "picture impressions," which depict patients and therapists in various situations, as an instrument for eliciting patient attitudes. The amount of attraction in the responses to each card is quantitatively determined and the length of time a patient will remain in therapy is predicted. Libo's pictures are, at best, rough sketches, and his presentation is lacking in evidence.

Caudill (1958) used twelve "picture interview" cards in assessing the patterning of attitudes in a small, private psychiatric hospital. He was interested in the attitudes of doctors, nurses, and patients toward the hospital in general, therapy, administration, and human relations. His pictures depict both intra-role and inter-role group activity in the hospital. Thirty-nine subjects, including eighteen patients of both sexes, were picture-interviewed at length and scored on 723 topics. The topics were rated as being either optimistic or pessimistic, and then comparisons were made within and between the various role groups. Among other things, Caudill found that all role groups were in agreement about the inadequate nature of the hospital in general, that therapy was seen rather hopefully; and there was no general agreement regarding administration and human relations.

Caudill mentions that he did not interview all of the patients and personnel in the hospital, but he says nothing about how he selected his sample. One can only infer that he studied cooperative subjects, that the representativeness of his sample is questionable, and that his results are biased. Further, his role-group samples are so small--five doctors, five residents, ten nurses, eight male patients, and ten female patients--that it is difficult to determine the significance of the reported differences; they could easily be attributed to the operation of chance. Tendencies toward optimism and pessimism in the various types of interactions are presented in numerous tables, but because of the limitations mentioned, little importance can be attached to them.

Reznikoff, Brady, and Zeller (1959) recognized the serious limitations inherent in previous investigations of the attitudes of patients and hospital

personnel. They were interested in making a more systematic study of the influence of attitudes on the behavior and clinical course of the patient. Focusing their interest on the psychiatric hospital, the psychiatrist, and psychiatric treatment, they developed a battery of procedures for eliciting attitudes in these areas. The battery consists of four instruments: the Soulelem Attitude Scale (Soulelem, 1955); a Picture Attitudes Test; a Sentence Completion Attitudes Test; and a Multiple Choice Attitudes Questionnaire. This publication contains scoring procedure and reliability data for the Picture Attitudes and Sentence Completion tests. These data are reported in terms of the amount of the inter- and self-agreement shown by judges in scoring the tests. The statistical significance of the reported percentages and correlations is not given, although the correlations appear to be highly significant. Also, no evidence is given regarding the extent to which repeated measurements with the tests yield similar results, hence the dependability or reliability of scores obtained on the measuring instruments remains unknown. Further, the authors state that it is possible to calculate a total score in each of the three attitudinal areas covered by the Sentence Completion Test as well as a combined overall score, with low scores indicating positive attitudes, and higher scores reflecting increasingly negative attitudes (p. 264). In effect, the authors are assuming that the incomplete sentences in one area are measuring an attitude toward one psychological object which is different from the attitudes being measured by the sentences in the other two areas. However, nothing is known regarding the interdependence of the sentences in each area or the relationship of the sentences in one area with those in the other areas. Resnikoff *et al.* did not investigate the reliability of the Multiple Choice Attitudes Question-

naire and the Soualem Attitudes Scale because, for them, reliability refers to reliability in scoring and these instruments are scored in an objective manner. Hence, the authors assume that these instruments measure the variables they were designed to measure when little is known regarding the accuracy and stability of scores obtained on them. In brief, it appears that additional data should have been gathered before concluding that these procedures have been checked for reliability and found to be adequate. (p. 266).

Brady, Zeller, and Resnikoff (1959) used their Psychiatric Attitudes Battery in an attempt to determine which, if any, attitudinal factors are related to the outcome of psychiatric treatment. The battery was used to assess the favorableness of patients' attitudes toward the three interrelated areas mentioned previously. Favorableness implied the degree of trust and confidence a patient indicated, implicitly or explicitly, in psychiatric treatment, or the degree of competence and interest he attributed to the doctor or hospital. An eight point "Degree of improvement rating scale" was developed for the purpose of establishing a base line during a patient's first week of hospitalization and for recording the degree of change during the course of treatment. A heterogenous group of 142 patients were administered the battery during the first two weeks following admission and rated by their therapists from four to six months after admission. Relationships between various attitudes and the outcome of treatment and the contribution of background factors were determined. Analysis of the data revealed that favorableness of attitude, as measured by the sentence completion test, bore no significant relationship to therapeutic outcome, but favorableness of attitude, as measured by the multiple choice instrument and the Soualem scale, was significantly related ($P < 0.05$) in both

cases) to outcome. The picture test results did not lend themselves to quantification, but the investigators inferred attitudes and studied their relationship to therapeutic outcome; among other significant findings, a marked degree of association ($P < 0.02$) was found between perceiving the hospital in a supporting, protective, or neutral manner, rather than as cold or menacing, and having improved in treatment.

It is noteworthy that Reznikoff et al. developed their battery in order to make a more systematic study of patient's attitudes, yet the greatest share of their results is based on data obtained from the Picture Attitudes Test. In their first publication, they had criticized this kind of datum as being almost impossible to quantify for individual and group comparisons. Their sentence completion test, also difficult to score and quantify, produced no significant results. Their multiple choice test seems superficial and does not ask questions in the areas, like the ward, which need to be explored; further, it is based on the setting in which it was developed and it takes things for granted which do not apply or occur in large public hospitals. The criticisms made previously of the Soules scale apply here as well. In spite of the limitations indicated here, the findings of Brady et al. underline the relationship of attitudinal factors to therapeutic outcome. They define favorableness of attitude and they stress the importance of high morale in the psychiatric treatment setting. Their study contrasts sharply with the unsystematic productions and anecdotal accounts of others referred to previously.

Wolfensberger (1958) investigated the attitudes of alcoholic patients toward mental hospitals. He was interested in learning whether age, education, treatment, and present or previous hospitalization are related to these atti-

tudes. He administered the Soulelem scale to 95 newly admitted psychiatric patients, 36 of whom were alcoholics, at a state hospital. The patients were divided into three groups: a group who had had no previous psychiatric inpatient care; a group with prior confinement in a psychiatric ward of a general hospital; and a group with prior confinement in a bona fide mental hospital. Age and education were ruled out as vitiating variables when correlations between them and scores on the Soulelem scale were found to be non-significant. Alcoholics were found to hold a significantly more favorable attitude toward mental hospitals than non-alcoholics ($P < .001$). When the scores of seven alcoholics who later escaped from the hospital were compared with those of alcoholic non-escapees, the escapees were found to have had a significantly more critical attitude toward mental hospitals than the others. Non-alcoholic patients with no previous hospitalization did not differ significantly in their attitudes from those who had spent some time in psychiatric wards of general hospitals. Patients who had been hospitalized previously in a mental hospital showed a significantly more favorable attitude than those in the other two groups. On the basis of the significant difference in scores found between alcoholic escapees and alcoholic non-escapees, Wolfensberger ventured that one could probably compute a regression equation which would predict with some accuracy whether or not an alcoholic would elope from the hospital. This suggestion seems to assume that the behavior which has been classified into two categories, escaping and not escaping, can be thought of as being normally distributed over a graduated scale or continuum. This assumption appears to be unwarranted because the dichotomous classification made is an "either-or" kind of split and not a two-category classification, like athletic-nonathletic, where reference is made to

a trait which can be conceived of as being continuous and normally distributed. Even if it were possible to accept Wolfensberger's assumption, it would be necessary to develop a method for measuring this trait in order to calculate the correlation between it and the attitude variable from which the regression equation would be derived. And a high correlation between the two sets of measures would not necessarily insure accuracy of prediction unless the variability of the measures was small. Also, it is well known that correlation is of most benefit in predicting the performance of groups and is usually of little help in forecasting accurately what an individual can be expected to do. Finally, it seems that the point bi-serial method of correlation is the one which Wolfensberger should have recommended, although point bi-serials r 's are lower than bi-serial r 's and are not directly comparable to them or to product-moment correlations; also, validity indexes obtained by the point bi-serial coefficient of correlation are lower than those obtained by the bi-serial coefficient of correlation. (Garrett, 1953, p. 362).

Imre and Wolf (1962), in a subsequent study, found no significant difference between the Soules scale scores of alcoholic elopers and alcoholic non-elopers. This finding was based on the scores of fifty-three males hospitalized for alcoholism, twenty-three of whom eventually eloped from the hospital. Imre and Wolf also investigated the attitudes of a group of employees of a state mental hospital, a group of student nurses, and a group of non-alcoholic patients. They found no significant difference between the means of males and females in the employee group, although the females showed a significantly greater amount of variability. Among the student nurses, about half of whom completed the Soules scale under a condition of anonymity while the

remainder identified themselves, no significant differences in attitude were obtained. No significant differences were found between the attitudes of male and female patients. When the mean scores of the four major groups were compared, significant differences were found between hospital personnel and non-alcoholic patients and between alcoholic and non-alcoholic patients, the non-alcoholic patients being less favorably disposed toward mental hospitals than either of the other groups.

It is noteworthy that Imre and Wolf found no significant difference between the Soules scale scores of alcoholic elopers and non-elopers, a finding which contrasts with that of Wolfensberger. Also, Klopfer et al. (1956) found no significant differences between the Soules scale scores of psychiatric patients on intensive treatment and chronic wards, whereas Soules (1955) did with comparable groups; also, Klopfer's patient group had generally unfavorable attitudes, while Soules's patients showed a favorableness of attitude toward mental hospitals. These conflicting results may have arisen from real differences in attitude on the part of the various groups studied, although the previously mentioned failures of the Soules scale to distinguish groups which on an a priori basis were expected to have differences in attitude suggests that the contrasting results may have been due to chance errors in measurement. The Soules scale has been subjected to only one known reliability study in which it was found to have an equivalent-form reliability of .88 based on a correlation of the two forms of the scale (Soules, 1955). Green (1954) has pointed out that if equivalence is measured by correlating two equivalent scales, additional evidence of homogeneity is necessary because it is possible for two highly correlated parallel scales not to be homogeneous. Hence, further

evidence of the scale's homogeneity and unidimensionality is needed before investigators can assume that people with the same score have about the same attitude toward mental hospitals.

An attempt has been made in this chapter to provide a review of some of the publications which are basic or related to the present study. Several anecdotal reports (Klemes, 1951; Michaels, 1947; Todd & Wittkower, 1948) stressing the relationship of morale to therapeutic outcome in the psychiatric hospital and one descriptive account of the breakdown of morale in a mental hospital (Stanton & Schwartz, 1954) were cited and evaluated. It was noted that there was a paucity of studies dealing with morale in this setting, the majority of such studies being focused on the morale of industrial workers and armed forces personnel. The conceptual disagreement surrounding the concept of morale and the attempts at clarification by several parties (Sletto, 1937; National Research Council, 1940; Child, 1941; Gladston et al., 1958) as well as McNemar's (1946) empirically sound proposal for bringing order into this area were reviewed. In keeping with the first two aspects of McNemar's plan, favorableness of regard for the ward was postulated as being one component of morale in the psychiatric hospital in much the same way that Campbell (1955) postulated "happiness" as being an indicant of the morale of submarine crews. Further, a unidimensional attitude scale was proposed as the methodology for assessing this variable.

The concept of attitude was discussed, and a brief resume of its origins was presented. It was noted that there is an implied or explicit emphasis upon readiness to respond in the repertoire of current American definitions of attitude. The predominant tendency to regard attitude as a hypothetical or

latent variable and to define it in terms of the correlations which exist among responses to a specified set of stimuli, or social objects, was mentioned by way of indicating the rationale for measuring attitudes. Some of the assumptions underlying the development of attitude scales and various methods employed in constructing them were discussed. Various reasons for selecting the method of summated ratings as a technique for developing the attitude scale were presented.

Finally, several studies of the attitudes of psychiatric patients were evaluated critically. The investigations by Hatch (1948) and Caudill (1958) were focused on attitudes toward various aspects of particular mental hospitals; in each case the data were obtained by interview methods the objectiveness and completeness of which is questionable. Further, their results are peculiar to the settings in which they were gathered and difficult to quantify for purposes of comparison. Most of the other studies of patients' attitudes (Soueilem, 1955; Klopfer et al., 1956; Reznikoff et al., 1959; Brady et al., 1959; Wolfensberger, 1958; Imre and Wolf, 1962) are focused on the attitudes of psychiatric patients toward "mental hospitals" and utilize as their methodology for assessing these attitudes the scale developed by Soueilem (1955). Although credit was given to Soueilem for suggesting that an attitude scale such as hers might be used in assessing patient morale, several criticisms were leveled against her scale. First, none of her statements deal with any kind of interpersonal relationships, an aspect of life in mental hospitals that must certainly constitute one of the subclasses of statements within the universe, or class, of all possible statements that can be made about a mental hospital. This omission, plus the lack of contradictory evidence, suggests

that Souelem relied upon her intuition in writing and selecting statements for her scale, a questionable and unreliable procedure. Also, the failure of Souelem's scale to distinguish groups which on an a priori basis were expected to reveal differences in attitude and the paucity of cross-validated findings raised doubts regarding the usefulness of the Souelem scale.

In summary, a review of the literature dealing with the morale of psychiatric inpatients indicated the need for a more systematic means of investigating this important variable. The literature dealing with attitudes and their measurement revealed several ways of carrying out this investigation. And previous studies of patient attitudes either were focused on different psychological objects or employed methods and procedures which have serious shortcomings. The need for a reliable and valid means of assessing the attitudes of psychiatric patients toward their immediate treatment settings, their wards, was indicated.

CHAPTER III

DESIGN OF THE RESEARCH INSTRUMENT

In the present study, the term attitude is defined as "the degree of positive or negative affect associated with some psychological object" (Thurstone, 1946). The psychological object of interest is the ward of the psychiatric hospital, and attention is focused upon the attitudes of psychiatric inpatients toward their hospital wards. The present chapter deals with the development of a methodology for eliciting and assessing these attitudes.

The ward is the basic unit in the organizational structure of most mental hospitals. Physically, it encompasses a certain area of space in one of the buildings or cottages which make up a mental hospital. In some hospitals there are two basic kinds of wards, those which are designated as admission or acute intensive treatment wards and those which are referred to as chronic or continued treatment wards. In other hospitals, such as the one in which the greater part of the present study was conducted, no such distinction is made; rather, wards are distinguished from one another in terms of the amount of freedom afforded the patients living there. Hence, there are "locked" or "closed" wards and "open" or "full privilege" wards in the latter kind of hospital. Psychiatric wards may vary with respect to bed-capacity and personnel-patient ratio, the open wards tending to have more beds and fewer personnel per patient. Also, they may differ in terms of general treatment procedure or purpose, some wards being primarily custodial wards and others being more

therapeutically oriented. However much one ward differs from another in terms of size, purpose, or patient population, all psychiatric wards consist of people who interact and communicate with one another in varying degrees.

When a patient is assigned to one of the wards of a psychiatric hospital he enters a situation which will become the primary locus of his existence for an uncertain period of time. The ward becomes a kind of home-away-from-home in which he sleeps, receives medication and other treatment, and "belongs" until his behavior warrants his being discharged or transferred. The patient becomes a member of the group there whether he interacts and communicates with the other members or not. As a result of his experiences on the ward, the patient typically develops a general impression of the ward, depending on the degree to which he feels his needs are being satisfied and the degree to which he recognizes that his satisfaction is a function of his present situation. Psychiatric patients frequently discuss among themselves and occasionally with hospital personnel the relative merits and deficiencies of wards with which they are familiar.

The present research was undertaken in an effort to uncover the specific events and situations which contribute to the formation of a general impression or attitude toward psychiatric wards. In order to obtain data which would be representative of the class of all possible affect that can be associated with a ward, it was necessary to utilize and develop methods of investigation which would stimulate and permit the spontaneous expression of both positive and negative feelings. Open-ended interviews and sentence completion forms are methods which other investigators have used successfully in previous studies of this kind (Howard, 1956; Thurstone & Chave, 1929; Webb & Kobler, 1962;

Willingham, 1958). Also, it was thought that the literature dealing with mental hospitals and the minutes of patient-council meetings might contain information regarding events or situations on psychiatric wards which concern patients. Although it is difficult to quantify and compare data obtained by the above methods, it is possible to use these data in constructing an attitude scale. An attitude scale consisting of statements obtained from such data would not be vulnerable to the criticisms which have been leveled against scales made up of intuitively written statements (McNemar, 1946), and an attitude scale, by its very nature, makes quantification and comparison of results possible.

Development and Construction of the Attitude Scale

An attitude scale consists of a series of statements about some psychological object. Essentially, it is a questionnaire designed to elicit the verbal attitudes, or opinions, of people toward some person, place, or thing. An attitude scale should be developed and constructed in such a way that its statements are representative of the class of all possible statements that can be made about the psychological object, that is, they should be representative of the universe (Edwards, 1957). Further, the degree of covariation among the statements should be such that they are highly interdependent, or homogeneous; that is to say, the scale should be unidimensional and reliable (Green, 1954). The following techniques were employed in an effort to obtain representative and interdependent statements for the proposed attitude scale.

Collection of Statements for Attitude Scale

Four basic approaches were utilized in gathering statements for the attitude scale.

1. Review of literature.

The literature dealing with various aspects of the psychiatric hospital was searched for statements which referred to the ward situation. For example, in a study of the social status and participation of a group of chronic schizophrenics Rosenberg (1961) describes in detail the activities, pleasures, and discomforts of daily life on one of the "back-wards" of a large government hospital. These observations and the quoted remarks of patients were noted and, later, utilized in drawing up a preliminary list of statements for possible inclusion in the attitude scale. In addition to this and the publications cited in Chapter II, the reports of Sewall, Gillin, and LeBar (1955), Irvine and Deery (1959), Kennard and Steiner, Cavill et al. (1952), McCabe (1961) and Pace (1957) were particularly informative in this area. Also, biographical accounts of former mental hospital patients were surveyed for statements pertaining to aspects of ward life. The accounts of Beers (1953) and Ward (1946) were especially beneficial. The most comprehensive publication dealing with the accounts of former mental patients is that of Alvarez (1961); unfortunately, he has utilized these accounts as a vehicle for expressing his own opinions about the nature of mental illness. The patients' reports are so interlarded with the editor's biases and interpretations that much of their originality is distorted and the reader is distracted unnecessarily. The review of the literature produced a list of nearly 100 potential statements.

2. Sentence completion technique.

Thurstone and Chave (1929) suggested using open-ended opinion questions as a means of gathering statements for attitude scales. Ten incomplete sentences were composed and mimeographed on two sheets of paper. See Appendix I.

This form was administered to 112 psychiatric inpatients on six open and five locked wards of the Downey Veterans Administration Hospital. Each of the four psychiatric units of the hospital was represented by at least one ward. An attempt was made to administer the form to all of the patients on these wards, but this was not always possible. There were patients who were away from the ward for various reasons, and there were patients who were either unable or unwilling to complete the sentences. On one ward a patient who was an officer of the building's patient-council expressed his dissatisfaction with the form, stating that it would not be of benefit to the patients, and all but one of other patients present refused to complete it. On another, fifteen of the twenty available patients refused to cooperate in spite of the encouragement given them. On the other hand, when a patient-leader agreed to cooperate, most of his fellow patients gradually followed suit. For example, the chairman of the patient-council on one female ward was enthused by the potential benefits of the project, and twenty-four of the thirty patients on the ward completed the form.

An analysis of the sentence completion forms revealed 1,168 separate responses. They were spread evenly over the ten sentences, there being no fewer than 111 and no more than 123 responses to any one statement. The responses were grouped according to similarity of content. This arrangement of responses made it possible later to select those completions which were most representative of an area and which were clear and concise.

There was considerable variation in the quality of the protocols. There were single and multiple word, humorous and pathetic, symbolic and concrete, pertinent and unrelated, and incomprehensible responses. In general, the

responses did not lend themselves easily to quantification. One patient indicated that the therapy program on his ward is..."Chinese water torture." And there was at least one patient who felt that the staff members on his ward "show an undue concern about their jobs, to the effect that they are always handing out asinine questionnaires."

3. Open-end interview.

Another empirical method used in collecting statements for the attitude scale was the tape-recorded, funnel-type interview. Patients were assured beforehand that their remarks would not be identified. They were asked questions like, "If you were in charge of this ward, what would you do?" All of the interviews were conducted behind closed doors in an office on the ward. The interview with one patient was of particular interest because of the sociogram method used in selecting him. In this case, the writer developed and had mimeographed the following opinion-type questionnaire:

In your opinion, which one of the men in treatment on this unit (ward) both:

- (1) Knows the most about the feelings of the men about the ward;
- (2) and is best able to tell what he knows to someone doing research in this area?

Write his name on this paper and put it in the box. Your choice will not be revealed to anyone.

The questionnaire was distributed individually to all of the staff members and collectively to all of the patients on an open ward for privileged men.

The rationale for this approach stems from an investigation by Campbell

(1955) in which he found a correlation of .9 between the ranking of ten submarines in terms of the relative morale by informed, communicative, non-representative shore personnel and the ranking of the same ships on the basis of morale ballots administered to the crews of each. Campbell concluded that the use of informed, articulate respondents in quantitative studies not only may produce findings of validity and generality, but reduce the time and expenditures involved in selecting and contacting representative individuals.

Five of the eight staff members and ten of the 33 patients who participated in the above procedure selected patient "E.P." It should be noted that three of the patients wrote nothing on the form, that no other patient received more than four and one-half votes, and that at least six other patients either chose themselves or signed their names without reading the form. It was predicted that patient "E.P." would receive the highest number of votes and, without others knowing, he was interviewed before the election was held. An examination of the interview indicates that this patient both fulfilled the criteria requirements and revealed himself to be a rather atypical and non-representative patient.

In general, the tape-recorded interviews produced fewer responses and less variation than the open-ended sentences. The increased protection which an anonymous questionnaire affords contrasts sharply with presence of a tape recorder and interviewer.

4. Patient-council meetings.

The Anthropology Service of Downey V. A. Hospital has on file a large number of transcribed minutes of patient-council meetings held on various wards and buildings throughout the hospital. These records were searched for

content pertaining to ward situations which concerned patients. The records contained numerous complaints about ward procedures and hospital life in general. Also, the minutes frequently contained plans for ward activities and specific requests of individual patients. A number of patient-council meetings were attended and notes were made of items on the agenda which were relevant to the ward situation. Information gained from a perusal of the printed minutes and from attending patient-council meetings was utilized in writing statements which later were incorporated in a preliminary form of the attitude scale.

The accumulated data was compiled and classified. One hundred and forty-two preliminary statements, covering one or more aspects of all of the topics found in the data, were composed. Whenever possible, the exact words of patients were used. Editing consisted in shortening statements and in substituting familiar words for abstract terms or ideas. The statements were reviewed within the light of the criteria advocated by Thurstone and Chave (1929), Likert (1932), Wang (1932), and Bird (1940). These criteria are given below:

- "1. Avoid statements that refer to the past rather than to the present.
2. Avoid statements that are factual or capable of being interpreted as factual.
3. Avoid statements that may be interpreted in more than one way.
4. Avoid statements that are irrelevant to the psychological object under consideration.
5. Avoid statements that are likely to be endorsed by almost everyone or by almost no one.
6. Select statements that are believed to cover the entire range of the affective scale of interest.

7. Keep the language of the statements clear, simple, and direct.
8. Statements should be short, rarely exceeding 20 words.
9. Each statement should contain only one complete thought.
10. Statements containing universals such as "all", "always", "none", and "never" often introduce ambiguity and should be avoided.
11. Words such as "only", "just", "merely", and others of a similar nature should be used with care and moderation in writing statements.
12. Whenever possible statements should be in the form of a simple sentence rather than in the form of a compound or complex sentence.
13. Avoid the use of words that may not be understood by those who are to be given the completed scale.
14. Avoid the use of double negatives." (Edwards, 1956, p. 13-14).

The statements were then submitted to eight psychologists.² They were asked to evaluate the clarity and relevance of the statements and to rate each statement in terms of whether it reflected favorable or unfavorable regard for a ward. On the basis of their judgments and appraisals, 68 statements were eliminated from the preliminary scale. A criterion of 100 percent agreement on the favorableness of a statement was established in order to reduce ambiguity to a minimum. Six additional statements were written in order to balance the number of favorable and unfavorable statements and to retain some data which otherwise would have been neglected. A preliminary attitude scale consisting of 82 statements resulted from this analysis.

In this developmental phase of the research, the scale was entitled "Ward Rating Scale," and patients were informed that it was part of a hospital-wide research project. They were advised that the statements had been made by other patients and asked to indicate whether they felt the same way about

their wards. The value of knowing what patients honestly thought about their present treatment settings was stressed, and they were informed that responses to the scale would be reported in summary statistical form only. In group administrations of the scale, patients were requested not to sign their names. In individual or small group settings, confidential treatment of the results was promised. In all cases, appropriate appreciation was rendered to the patients for their cooperation. The formal instructions utilized during this phase of the research can be seen in Appendix IV. The patients were asked to respond to each statement in terms of their own agreement or disagreement with it. Five alternative choices were printed under each statement: (1) strongly agree, (2) agree, (3) undecided, (4) disagree, and (5) strongly disagree. Patients were instructed to choose one of the five responses. The 82 statements were mimeographed on six separate pages. The pages were stapled together in varying orders, every page except the first one being placed an equal number times in the page positions two, three, four, five, and six. It was thought that this arrangement of the pages would distribute neutral responses, which tend to increase as a respondent becomes fatigued, over the entire series of statements rather than have the majority of them occur on the latter pages of the form.

It soon became apparent that the preliminary scale had several significant weaknesses. It required too much time to complete, twenty minutes to a half hour on the average, and it demanded too much concentration from many patients. The form consisted of six mimeographed pages containing 82 statements. An analysis of incomplete forms revealed many initially adequate attempts by patients who apparently become fatigued and either ceased respondi-

ing altogether or resorted to responding neutrally. There were other obviously invalid record forms in which only one alternative, usually the "agree" category, had been chosen; this pattern may have arisen from a misunderstanding of that part of the instructions which referred to feeling "the same way" as the patients who made the statements. Further, the title seemed to focus attention on rating the ward which, if perceived that way, may account for a number of neutral records in the preliminary study. For the above and whatever other reasons there may have been it was necessary to administer 261 forms before the statistically desirable goal of 200 complete and ostensibly accurate records was reached.

The responses of the 200 patients on the preliminary form of the attitude scale were scored by assigning integral weights to each one of the five response categories. The categories were weighted in such a way that patients with the most favorable attitudes would have the highest positive weight. Hence, for favorable or positively worded statements, it was assumed that this is the "strongly agree" category and, for unfavorable or negatively worded statements, that it is the "strongly disagree" category. For favorable statements, the "strongly agree" category was assigned a weight of 4, the "agree" response a weight of 3, the "undecided" response a weight of 2, the "disagree response" a weight of 1, and the "strongly disagree" response a weight of 0. For unfavorable statements, the scoring system was reversed so that, for example, the "strongly disagree" response was assigned a weight of 4. A total score for each patient was determined by summing the integral weights which were assigned to the categories he chose. The scoring procedure presented here is referred to as the method of summated ratings (Bird, 1940);

Edwards, (1957), or more briefly as the Likert method (Likert, 1932; 1937).

In order to construct an attitude scale by the Likert method, it is necessary to obtain statements which are capable of eliciting clear differences of attitude toward the psychological object under consideration. It was hoped that an analysis of the data obtained in the preliminary study would provide 20 to 30 statements of this kind. An item analysis was performed by, first, arranging the summated scores of the 200 patients in the form of a frequency distribution. Next, two criterion groups were selected, one consisting of the top 27 percent of the total distribution and the other of the bottom 27 percent. The top group, or high scores, and the bottom group, the low scorers, each included 57 patients. Kelley (1939) has demonstrated that the ratio of the obtained difference to its standard error is at a maximum when each of the groups contains this percentage of the total population tested. Finally, *t*-values were calculated for each of the 82 statements according to the method proposed by Edwards (1957).

$$t = \frac{\bar{X}_h - \bar{X}_l}{\sqrt{\frac{\sum(X_h - \bar{X}_h)^2 + \sum(X_l - \bar{X}_l)^2}{n(n-1)}}$$

where \bar{X}_h

= the mean score on a given statement for the high group

\bar{X}_l

= the mean score on a given statement for the low group

$\sum(X_h - \bar{X}_h)^2$

= $X_h^2 - \frac{(X_h)^2}{n}$

and $\sum(X_l - \bar{X}_l)^2$

= $X_l^2 - \frac{(X_l)^2}{n}$

The obtained t -values ranged from 2.38 to 12.51 for the 82 statements. Edwards (1957) considers any t -value equal to or greater than 1.75 as indicating that the average response of the high and low groups to a given statement differs significantly, provided that there are 25 or more subjects in each of the groups. Accepting this criterion, all 82 of the statements on the preliminary form of the attitude scale can be said to be capable of eliciting clear differences of attitude.

What was desired was a set of twenty to thirty statements which would elicit clear differences of attitude toward the ward. Hence, the statements were arranged in rank order on the basis of t -values. Twenty-eight statements were selected from among the fifty statements with the largest t -values. This number of statements was chosen because this was the maximum number of statements one could arrange on two sheets of regular size paper. The first 28 statements having the highest t -values were not selected because such a selection would have resulted in a scale having 12 favorable and 16 unfavorable statements. It is desirable to have an equal number of favorable and unfavorable statements in an attitude scale so as to diminish the chance of a response set being generated in respondents. There is another reason why the first 28 statements were not chosen for the final scale. Several of these statements were so similar in content, differing only in form, that patients had observed and commented upon it. See, for example, statements #64 and #68, #38 and #60, and #35 and #73. In these cases, the statement with the higher t -value was selected and the discarded statement was replaced by a statement pertaining to some other aspect of ward life. The latter clinical procedure made it possible to include some statements which covered areas which otherwise

would have been neglected in a purely empirical approach to selection.

Other methods of item analysis have been suggested and utilized.

Murphy and Likert (1937) selected statements on the basis of the magnitude of the difference between the means of a high and low group. They found that this procedure agreed well with the ordering of the same statements in terms of the magnitude of the correlation between the statement response and total score. Webb (1958) used the simpler procedure, calculating a difference value for each statement and selecting for his scale an equal number of favorable and unfavorable statements having the greatest difference values.

In order to determine whether the final group of 28 statements constitutes a scale and whether they are appropriately distributed on a favorable-unfavorable continuum, the responses of 200 patients were scaled according to the multiple category method (Rimoldi and Hormaeche, 1955). This method provides a procedure for estimating the modal discriminial process and discriminial dispersion of stimuli, as well as the value of the boundaries of intervals on the continuum. It is based on the law of comparative judgment (Thurstone, 1927) and has been applied to the successive intervals and graphic rating scale methods. As far as can be determined, Webb (1958) was the first to apply it to the method of summated ratings.

In the multiple category method, it is assumed that the stimuli are normally distributed and that, together with the interval limits, they can be located on the same psychological continuum. The origin of the scale is defined as $\sum_j S_j = 0$ and the unit of measurement as $(\sum_j \sigma_j)/n = 1$

where S_j = the modal discriminial process for the j th stimulus

σ_j = the discriminial dispersion for the j th stimulus

n = the total number of stimuli

The modal discriminial process (scale value) for each stimulus is defined as

$$\frac{(\sum L_i - \sigma_j \sum X_{ij})}{n - 1} = S_j$$

where L_i = the modal discriminial process of the boundary between intervals i and $i+1$, where there are m intervals

X_{ij} = the normal deviate corresponding to the proportion of times that stimulus j has been placed in a position less preferred than the point L_i

And the value of the discriminial dispersion (standard deviation) for each

stimulus is given by $\sigma_j = \frac{n}{V_j (1/V_j)}$

where $V_j = \frac{1}{n-1} \sqrt{(m-1) \sum X_{ij}^2 - (\sum X_{ij})^2}$

Summarizing the above, the multiple category method of scaling enables one to determine the standard deviation and scale value for each statement. The stimulus or scale values should sum to zero; and, if the discriminial dispersions for all stimuli are equal, the standard deviations should sum to unity. It is also possible to determine the normal deviate weights for each of the response categories by this method. These data can then be used to verify the integral weights which were assigned to each response category and used in scoring the preliminary attitude scale.

The following procedure was employed in scaling the data: a) Frequencies and corresponding proportions were obtained for each of the five response

categories. These values represent the number of patients who selected each of the five response categories for each statement. They are presented in Appendix II. b) Cumulative proportions were calculated for the response categories (Appendix II), and corresponding normal deviates were determined (Appendix III). c) The standard deviation of each statement was obtained by means of the formula presented above, as follows: i) The normal deviate values of the five response categories for each statement were summated ($\sum X_{ij}$), ii) The same values were squared and summated ($\sum X_{ij}^2$), iii) V_j and $1/V_j$ values were calculated, andiiii) the $1/V_j$ values were summated for use as a constant in the formula for obtaining standard deviations for each statement. (Table I). d) The upper limits of the five response categories for each statement were calculated by multiplying each normal deviate value by the standard deviation of the statement. The upper limit of the extreme ("4") interval was estimated by assuming that the subjects who chose this category were normally distributed throughout the interval. Hence, the numerical difference between the normal deviates for the "4" and "3" intervals was added to the normal deviate for the "4" interval, and, then, this value was multiplied by the standard deviation for the statement to obtain the upper limit for the interval. (Appendix III). e) Normal deviate weights for each of the response categories were obtained by adding to every upper limit value the lowest negative value (-2.16) among all the upper limit values obtained. This procedure eliminated negative numbers from the table of normal deviate weights and set the lowest scoring weight equal to zero. f) Finally, scale values were calculated for each of the 28 statements by modifying slightly the formula presented earlier. The denominator of the formula was changed from

m-1 to m, the total number of response categories per statement, because, as indicated in "d)" and "e)" above, the upper limit of the extreme interval or response category was estimated and a weight for this limit was calculated. Ordinarily, in applying the multiple category method to data obtained by the method of successive intervals, the extreme interval is dropped, hence the use of m-1 in the formula.

As indicated previously, use of the multiple category method assumes that the stimuli are normally distributed. By definition, the stimulus values for the various stimuli should sum to zero and the standard deviations, when summated and divided by the total number of stimuli, should sum to unity. The distribution of the scale values for the 28 statements of the attitude scale, illustrated in Figure I, indicates that only nine of the statements have negative scale values and that there is less variability of scale value among them than there is for the statements with positive scale values. Table I indicates that the stimulus values do not sum to zero ($\sum_j S_j \neq 2.8$).

This finding reflects a tendency on the part of the patients surveyed to "agree" with the favorable or positively worded statements and to "disagree" with the unfavorable or negatively worded statements. Reference to the frequency columns in Appendix II will document this tendency. One would surmise that the patients who characteristically responded in this manner were either sufficiently satisfied, but not overjoyed, with the system on their wards or they were afraid to criticize their environments because of their dependency upon it.

Table I indicates that when the standard deviations for the statements are summated the obtained value was approximately equal to the number of

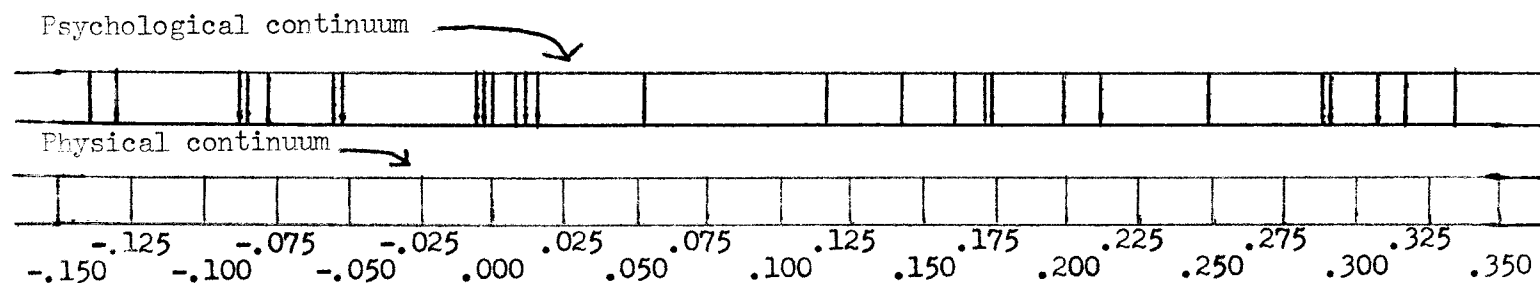


Fig. 1. Distribution of Scale Values for the 28 Statements of the Patients Opinion Poll

Table 1

Standard Deviations, Scale Values, and Normal Deviate Weights for Statements on the Patients Opinion Poll

Item	Standard Deviation	Scale Value	Normal Deviate Weights				
			0	1	2	3	4
1	1.000	.367	.11	.76	1.12	2.79	3.76
2	1.030	.162	.42	.78	1.47	2.97	3.91
3	.920	.331	.02	.77	1.34	2.84	3.69
4	1.015	-.009	.49	1.11	1.61	3.15	3.98
5	.969	.010	.40	1.11	1.67	3.12	3.92
6	.957	.250	.08	1.01	1.34	2.90	3.70
7	.912	-.057	.44	1.11	1.88	3.19	3.89
8	.912	.320	.18	.74	1.22	2.86	3.69
9	1.064	.000	.51	1.14	1.51	3.13	4.04
10	1.063	-.082	.41	1.19	1.93	3.33	3.52
11	1.030	.211	.22	.90	1.42	2.90	3.87
12	.911	.052	.38	.97	1.73	3.08	3.83
13	1.035	-.129	.67	1.36	1.90	3.38	4.16
14	.931	.308	.00	.97	1.31	2.80	3.73
15	.981	-.002	.44	1.10	1.67	3.14	3.94
16	1.023	-.052	.48	1.16	1.72	3.18	4.02
17	1.048	.146	.19	1.08	1.53	2.93	3.90
18	1.027	-.076	.56	1.58	2.03	3.39	4.16
19	1.084	.010	.38	1.15	1.68	3.07	4.03
20	1.107	.289	.22	.83	1.19	2.82	3.92
21	.997	.200	.35	.76	1.42	2.95	3.85
22	1.027	.172	.23	.98	1.47	2.94	3.88
23	.953	.290	.20	.82	1.21	2.88	3.75
24	.969	.120	.26	1.00	1.61	2.99	3.84
25	1.109	.018	.44	1.10	1.61	3.07	4.06
26	.964	-.136	.53	1.43	2.04	3.34	4.06
27	.983	-.087	.59	1.16	1.69	3.24	4.02
28	.986	.174	.23	1.00	1.43	2.95	3.84
Σ 28.007			Σ 2.800				

statements in the scale ($\sum_j \sigma_j^2 = 28.007$). Hence, the definition of the unit of measurement ($\sum_j \sigma_j^2 / n-1$) as posited in the multiple category method was adhered to in scaling.

The normal deviate weights obtained by the multiple category method (Table I) were utilized in rescaling the attitude scale protocols of 57 patients. The total scores were correlated with the scores which had been calculated on the basis of integral weights assigned to each of the response categories. A coefficient of .99 was obtained by means of the Pearson product-moment method of correlation. The relationship between the normal deviate and integral weighting methods of scoring is graphically illustrated in Figure 2. The substantial amount of agreement found between the two methods of scoring is in accord with the findings of others who have investigated this problem (Likert & Murphy, 1937; Webb & Kobler, 1962). The integral weighting system of scoring was utilized in this study because of the comparatively greater ease it affords.

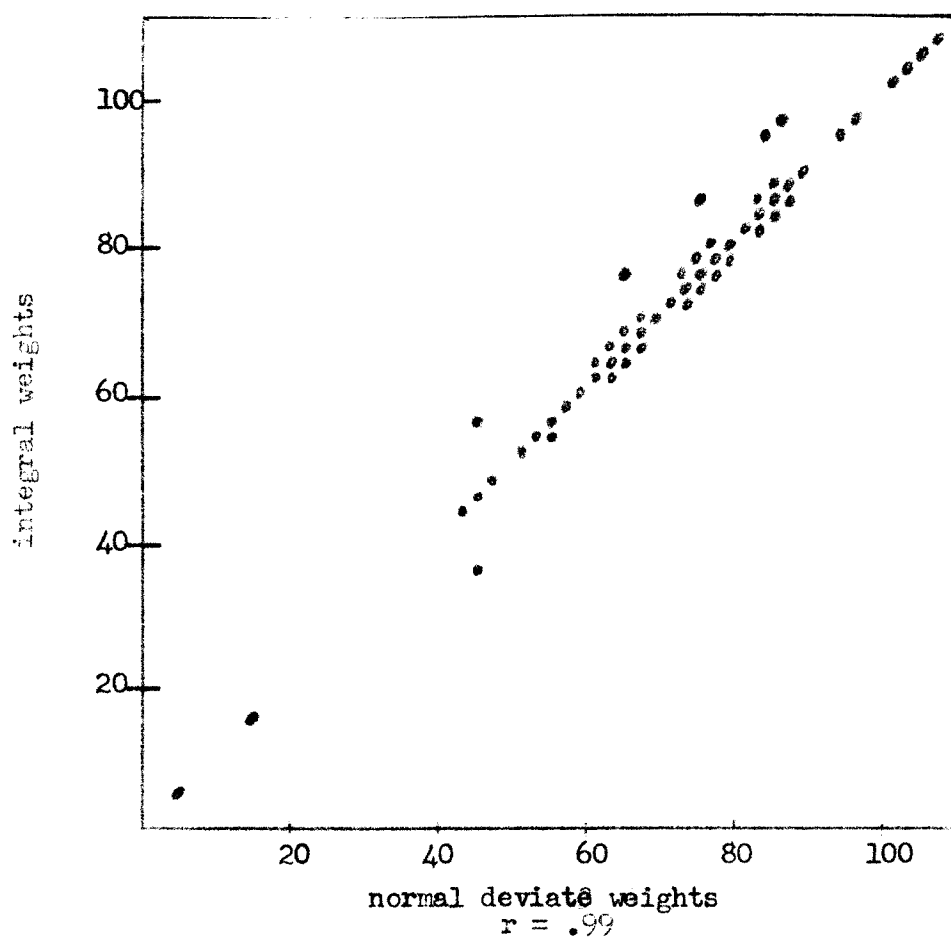


Fig. 2. Relationship Between Integral and Normal Deviate
Weights Method of Scoring the Patients Opinion Poll

CHAPTER IV

RELIABILITY AND VALIDITY STUDIES

The foregoing chapter dealt with the clinical and empirical techniques utilized in developing the attitude scale. In view of the purposes for which the scale was constructed, it is necessary to know how much confidence can be placed in the accuracy and stability of scores obtained on the scale. There is also a need to know the extent to which the scale assesses the variable it was designed to measure. The present chapter is concerned with the devising of procedures which will provide information about the reliability and validity of the scale.

There is some degree of error in all measurement, and there are various ways of estimating the extent of this error. Error, or accuracy, of measurement may be estimated by determining the extent to which repeated measurements yield similar results. The obtained results are an indication of the dependability or reliability of the measuring instrument.

The reliability of an attitude scale can be estimated by correlating the odd and even statements of the scale and applying the appropriate Spearman-Brown formula. The resulting coefficient of internal consistency is an indication of the extent to which the statements are interdependent and, as such, it serves as a check on the assumption that the statements were drawn from the same class or universe. This estimate of reliability is particularly meaningful in evaluating the adequacy of attitude scales because

the attitude is defined by the correlations among the individual responses. Covariation among responses is assumed to be related to the variation of an underlying variable. If the statements are found to be highly interdependent, they are homogeneous and the attitude scale is unidimensional. Such a finding would enable one to assume with some degree of certainty that similar scores reflect similar attitudes about the psychological object. Homogeneity can be thought of as an indication of reliability, although, as Green (1954) has pointed out, it is possible for a scale to be highly reliable and not homogeneous. The coefficient of internal consistency can be determined by either split-half or Kuder-Richardson type methods (American Psychological Association, 1954).

Also, the reliability of an attitude scale can be estimated by administering the scale to the same group of subjects on two or more occasions with an appropriate period of time between testings. A coefficient of stability is calculated by correlating the test and retest scores. This estimate of reliability provides some information about the stability of the scores obtained on the scale and is, therefore, relevant to the present study where there is interest in determining whether anticipated changes in attitude following exposure to a particular treatment setting are due to the treatment condition or the unstable nature of the scores. However, it has frequently been found that the coefficient of stability is increased by memory and familiarity with a scale and decreased by extending the time interval between testings (Green, 1954). Regardless of the length of the time interval, there is always the possibility that some extraneous event will occur and significantly alter the attitudes of subjects toward the psychological object.

The validity of an attitude scale can be determined in several ways. Ideally, it might involve correlating the elicited verbal attitudes with some outside criterion, for example, with behavior checklist ratings based on extensive observations of each individual studied. In the event that the results of an attitude scale are to be used as an indicant of action, then, evidence of the latter kind of validity is required. If there is interest only in determining the degree of relationship between one attitude and another, then the validity of a scale might be estimated in terms of its reliability and homogeneity, that is, if the scale were found to possess these characteristics, it would be measuring some variable. With respect to the present research, there is a general lack of agreement concerning the nature and meaning of morale and no definitive criteria for rating the morale of psychiatric inpatients have been developed. This study is an effort in that direction. In view of the fact that the scale developed in this study might be used as an indicant of future action, there was interest in determining the scale's validity by a method which would complement any reliability and homogeneity data found.

The term validity as used in this research will refer to the extent to which the scale assesses the variable it was designed to measure. Evidence of the scale's validity will be determined by comparing the scores of two groups of individuals who because of the differences in their treatment settings should obtain different scores on the scale.

Several hypotheses will be proposed and tested in an attempt to determine the attitude scale's reliability and validity. They will be presented in numerical order, and this system will be retained in reporting the results.

The attitude scale will be referred to as the "Patients Opinion Poll."

Reliability Experiments

Hypothesis 1: If the Patients Opinion Poll is a reliable attitude scale, there will be a high correlation between scores obtained by the same individual on two halves of the test.

Method 1: A coefficient of internal consistency was obtained by administering the Patients Opinion Poll to 57 psychiatric inpatients on the psychiatry service of a large Veterans Administration hospital located in the Chicago area. An attempt was made to administer the scale to all of the approximately 110 patients on this service, but, for various reasons, this was not possible. On the two open wards there were 14 patients on passes and 13 patients who failed to show for the patient-council meeting at which the scale was administered. All 24 of the patients attending the meeting completed the form. On the two locked wards, there were about 15 outright refusals to attempt the form and five incomplete records which could not be scored. The remainder of the patients were either away from the ward, unable, or unwilling to cooperate. It should be noted that the hospital in which these data were gathered is not the same as the one in which the preliminary form of the scale was developed. Each of the 57 records obtained was divided into two halves, one-half consisting of the odd-numbered statements and the other of the even-numbered statements. Each of the halves was scored according to the previously outlined system. The obtained scores were arranged in frequency distributions and correlated by the Pearson product-moment method (McNemar, 1955, p. 120). The Spearman-Brown formula (Garrett, 1953, p. 341) for estimating reliability from two comparable halves of a test was

applied to the results.

Hypothesis 2: If the Patients Opinion Poll is a reliable scale, there will be a high correlation between scores obtained by the same individual on two separate occasions, the period of time between administrations being two weeks.

Method 2: A coefficient of stability was obtained by administering the Patients Opinion Poll to 62 psychiatric inpatients on two separate occasions. Initially, there were 98 patients in this group, all but 24 of whom were assigned to three open wards on the neuropsychiatric-tuberculosis (NP-TB) service of the Downey V. A. Hospital. Twenty-eight of the NP-TB patients did not complete the scale in spite of individual requests and encouragement, making it impossible to compute scores for their records. Three other patients in the original group "agreed" with all or most of the statements; because of obvious response inconsistencies, these records were not included in the study. It should be noted that in this experiment patients were requested to identify their record forms, otherwise it would have been impossible to match their records following the second administration of the scale. They were not informed that there would be a second administration of the scale, only that their assistance was needed in order to determine the value of present treatment methods in the hospital. Four other patients were not available at the time of the second administration of the scale, and one refused to complete it a second time. Hence, slightly more than one-third of the original sample was lost in the course of this experiment. The two sets of obtained scores were correlated by the Pearson product-moment method of correlation for grouped data.

Validity Experiment

Hypothesis 3: If the Patients Opinion Poll is a valid measure of patients' attitudes toward their wards, then the mean score of a group of patients who have been exposed to a therapeutic community type of ward situation should be significantly higher than the mean score of the same group before exposure to this form of treatment.

Method 3: It is assumed in the above hypothesis that the experiences which these patients undergo in the experimental situation will be favorable and will facilitate changes in attitude in that direction.

The hypothesis was tested, first, by administering the attitude scale to every available third male who was admitted to the psychiatric service of The Downey V. A. Hospital during the period March through September, 1962. The scales were administered on the wards to which the patients were assigned, and no mention was made of any possible transfer to another ward. Emphasis was placed on the usefulness of knowing what patients thought about conditions on the ward. Also, these patients had been living on their wards for a period of time, two to three weeks, which was sufficiently long to familiarize them with the situation. Within a week these patients received a mimeographed invitation to visit the Motivation Unit, that is, the experimental ward. Those patients who accepted and who were allowed to accept the invitation were given a tour of the unit and an explanation of its program and goals. Then, they were interviewed by the Unit's "staff" which consists of a psychologist, a psychology trainee, a clerk-stenographer, and one or more nursing assistants (aides). If a patient indicated that he was not interested in transferring to the unit, he returned to and remained in treatment on his original ward. If

a patient indicated interest in transferring, but the staff considered him unsuitable for the program offered on the unit, he was dropped from consideration. Those patients who expressed interest in transferring to the unit and who were considered acceptable by the staff were informed that, if it were possible, they would be transferred to the Motivation Unit. Whenever there was an equal number of acceptable candidates for transfer, they were randomly assigned to experimental and control groups. Those patients who were assigned to the control group remained in treatment on the wards to which they were originally assigned; there were 20 patients in this group. Those patients who were assigned to the experimental group were transferred to the Motivation Unit; this group consisted of 20 patients. The validity hypothesis was tested by re-administering the attitude scale to the patients in both groups. It was anticipated that the effect of exposure to the treatment condition would be experienced within one month's time. Hence, a period of approximately four weeks was allowed to elapse between administrations of the scale. The pre- and post-test means were calculated for each group. The statistical significance of difference between the pre- and post-treatment means of each group was determined by the following formula

$$t = \frac{(\bar{D} - \bar{D}_p)}{\sqrt{\frac{N \sum D^2 - (\sum D)^2}{N^2 (N - 1)}}$$

where \bar{D} = the mean of the differences between pre- and post-treatment scores

\bar{D}_p = the mean of the population of differences

N = the total number of patients in the group

$\sum D$ = the sum of the differences between pre- and post-treatment scores

A t test of differences between means of two correlated samples was used because in this experiment the same individuals were measured before and after treatment (Tate, 1955 p. 466). This formula assumes only that the sample of differences is drawn randomly from a normal population of differences. The total change in the control group was subtracted from the total change in the experimental group, resulting in a net change the significance of which was determined by means of a "t" test of differences between means of two independent samples (Tate, 1955, p. 463). The following formula was used:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(\sum x_1^2 + \sum x_2^2)}{N_1 + N_2 - 2} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

Where \bar{X}_1 = the mean score of the experimental group on the attitude scale following treatment

\bar{X}_2 = the mean score of the control group on the attitude scale following no treatment

N_1 = the number of patients in the experimental group

N_2 = the number of patients in the control group

$\sum x_1^2 = \frac{1}{N_1} \left[N_1 \sum X^2 - (\sum X)^2 \right]$, the sum of the squares of scores made by experimental subjects

$\sum x_2^2 = \frac{1}{N_2} \left[N_2 \sum X^2 - (\sum X)^2 \right]$, the sum of the squares of scores made by control subjects

This formula was used because patients were assigned to the two groups in a random manner. This formula assumes that the sampled populations are alike in variability ($\hat{\sigma}_x = \hat{\sigma}_y$) because a significant value of "t" could arise in

sampling from populations having equal means but different standard deviations. Hence, the significance of the difference between the independent sample variances was tested by the variance ratio F (Tate, 1955, p. 493). The obtained value ($F = .597$) was within the region of acceptance at the .05 level of significance. The assumption that the sampled populations have equal variances was, therefore, tenable and use of the above "t" test was appropriate. This design is based on the suggestions of McNemar (1946) and Tate (1955). In both tests of significance, the null hypothesis will be accepted or rejected at the .05 level of confidence.

Description of the Treatment Setting³

The Downey (Veterans Administration Hospital) Motivation Unit is a 50 bed psychiatric ward located in one wing of a large building which otherwise houses geriatric patients with neuropsychiatric conditions. It is somewhat removed from the other psychiatric wards of the hospital, and it differs from other wards in terms of its organization and philosophy of treatment. These differences are especially apparent in several areas.

1. Administrative Responsibility: Staff members and men in treatment, who are not referred to as patients, on the Motivation Unit share the responsibilities and benefits of the unit by joint participation in discussions and policy making sessions. There are no unilateral decisions, the men in treatment having an equal voice in decisions affecting the Unit. On other wards of the hospital the medical staff has primary responsibility for patients; it directs the operation of the ward. The ward physician captains the team; his orders and administrative decisions are communicated to and carried out by the nursing staff.

2. Communication: The men in treatment on the Motivation Unit are encouraged to communicate openly their ideas, questions, interests, feelings etc.; privileged communication occurs only when it is therapeutically necessary. Problems are discussed openly in the presence of the men in treatment and staff members; then, decisions are made democratically. Clinical records are kept but de-emphasized. In contrast, on other wards the physician diagnoses and prescribes treatment for the patient. The doctor communicates this information, either verbally or in written form, to those staff members whose professional training ordinarily qualifies them to understand it and to use it in their dealings with the patient. The nurses, social workers, psychologists, special therapists, and other members of the staff use this information as a basis or frame of reference in their approach to and treatment of the patient. In turn, they relate to the doctor in either written or spoken form their findings, observations, results, etc.; these data are utilized by the doctor in evaluating the patient and in deciding whether to continue, revise, or discontinue the present course of treatment for a given patient. The physician informs the patient of any change in treatment procedure or he has one of the professional staff members, usually a nurse, communicate the change. In either case, the physician usually decides to what extent the patient shall be informed regarding the reasons for such a change. In turn, the patient may communicate information to the physician which is or is not relayed to the other members of the team. Non-professional employees, nursing assistants, and housekeeping people, ordinarily are not invited to participate in team or ward meetings.

Administrative problems on other wards are brought up and discussed by

the professional staff members, usually in the privacy of an office or conference room. The physician reviews these problems in the light of his responsibilities to the patients and to the administration of the ward. He and his staff discuss and decide the manner in which their decisions are to be carried out. Their discussion remains confidential.

3. Staff Status: Differences in status among staff members and men in treatment on the Motivation Unit are minimized in order to diminish the number of autocratic actions taken. Any actions taken on the unit may be questioned by anyone. In contrast, differences in status among staff members and between staff members and patients are readily apparent on other wards. Patients and visitors have little difficulty identifying staff members, distinguishing one professional from another on the basis of either his uniform, shoulder emblem, key chain, identification badge, professional gadgets, etc. These professionals usually are available for appointment in their offices where other paraphernalia, certificates, diplomas, titled desk insignia, etc. further clarify their functions.

4. Roles: Everyone on the Motivation Unit is encouraged to be himself, to abandon uniforms or other distinctive insignia, and to refrain from distinctive actions associated with particular roles. Hence, role-blurring and cooperation characterize the unit. Emphasis is placed on accomplishing what needs to be done together rather than on who should do it. When joint discussion leads to decisions, each staff member is encouraged to act autonomously in carrying out the contemplated actions.

In contrast, on most wards the roles of the various staff members are clearly defined, each member being responsible for the carrying out of the

decisions and directions of the physician and his team. The staff members see to it that the patients comply with these directions. In addition, patients are oriented as to treatment procedure and hospital programs by means of lectures, interviews, rules, and regulations.

5. Care by the Staff: Men in treatment on the Motivation Unit are given every opportunity possible for carrying out of their personal affairs. They are afforded with a degree of freedom approaching life outside of the hospital in order to develop their potentialities for self-reliance.

On other wards of the hospital the medical and other professional staff are responsible for the care of the patient. The person most intimately involved is the nursing assistant who is on the ward with the patient; he is responsible for the safety of the patient and he sees to it that the patient follows the physician's and nurses' orders.

6. Treatment Process: In general, everyone on the Motivation Unit is "in treatment," that is, involved in the process of treatment. Staff members who may be encountering problems in daily living are afforded opportunities to relate their difficulties, and they can expect to receive the concern and assistance of others on the unit. This mutual concern for the well-being of one another and the group is an essential characteristic of the treatment process on the Motivation Unit.

The staff members on other wards typically make every effort to provide for the well-being of the patient in order to help him feel secure, safe, encouraged, and active; emphasis is placed upon utilizing the available plant resources and professionally qualified staff members. Limitations and precautions, if any, are clearly indicated by the patient's physician in the

clinical records and followed by the nurses and nursing assistants in determining what the patient can and can not do. Patients are informed of the limits of what activities they may undertake either by way of direct communications, the passes they are granted, the posted rules and regulations, or by all three means. They may or may not be advised of the reasons underlying decisions regarding the limits of their activities. They are also informed of what they may expect of various staff members. These procedures serve to establish and maintain clearly the limits of the prescribed treatment program within which the patients and staff members function.

CHAPTER V

ANALYSIS OF RESULTS

The results of the reliability and validity experiments will be presented in the same numerical order as the related hypotheses were in the preceding chapter.

Reliability of the Patients Opinion Poll

I. Internal Consistency.

Hypothesis 1: A coefficient of internal consistency was obtained by correlating the scores of 57 psychiatric inpatients on split-halves of the attitude scale. One set of scores was based on the responses of these patients to the even numbered statements of the attitude scale, the other on their responses to the odd numbered statements. A coefficient of .91 ($P. < .001$) was obtained by means of the Pearson product-moment method of correlation. The distribution of the scores on which this coefficient is based can be seen in Figure 4. Application of the Spearman-Brown formula to this coefficient raised the correlation to .95 ($p. < .001$). This coefficient compares very favorably with others reported in the literature for summated-rating scales. Edwards (1957) presents a number of corrected reliability coefficients for summated-rating scales; simple inspection of these results reveals that they range from the high 60's to the low 90's. Hence, the coefficient of internal consistency obtained in the present study is such that the statements appear to be highly interdependent and homogeneous. Further, it can be assumed

with considerable confidence that the scale is unidimensional and reliable. One practical implication of this finding is that patients who earn similar scores can be assumed to have about the same attitude toward their wards.

II. Stability.

Hypothesis 2: A coefficient of stability was obtained by administering the attitude scale to 62 psychiatric inpatients on two separate occasions and correlating the scores. There was an interval of approximately three weeks between administrations of the scale. A coefficient of .61 ($p < .001$) was obtained by means of the Pearson product-moment method of correlation. The distribution of the scores on which this coefficient is based can be seen in Figure 5. This coefficient suggests that less confidence can be placed in the stability of scores obtained on the scale than had been hoped for. On the other hand, it should be noted that both Hall (1934) and Sletto (1937) obtained lower reliability coefficients on their morale scales than on any of the several other scales they developed. Hall reported coefficients from .69 to .84 for his morale scale of only five statements, and Sletto's morale scale of 22 statements gave split-half and test-retest (two months time interval with 50 subjects) coefficients of .72 and .61, respectively. Further, it should be recalled that the present scale was developed primarily for the purpose of distinguishing reliably between the means of two relatively small groups and not to differentiate among individuals in a group. In the latter case, a reliability coefficient of .90 or more would have been necessary; for the purposes of the present study, a coefficient of more than .50 should be sufficient (Garrett, 1953, p. 338). Finally, it is entirely likely that a higher coefficient of stability would have been obtained if

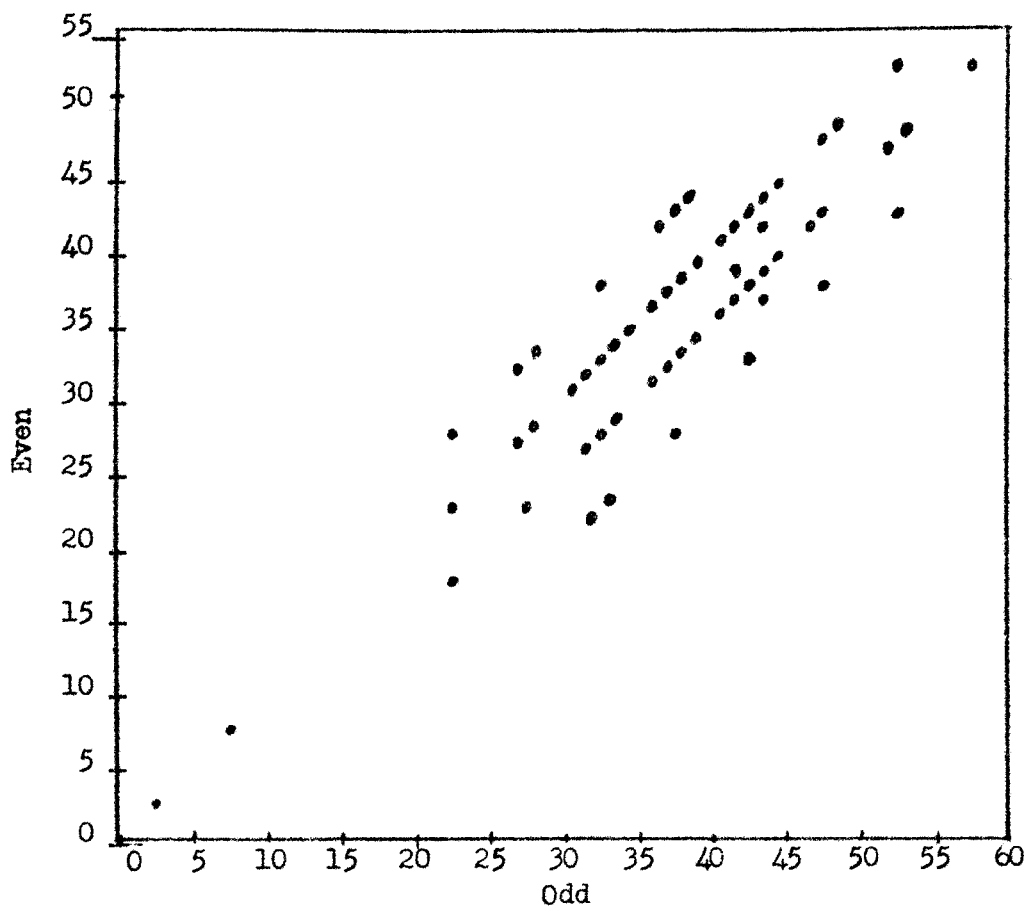


Fig. 4. Coefficient of Internal Consistency for Patients Opinion Poll. $r = .95$

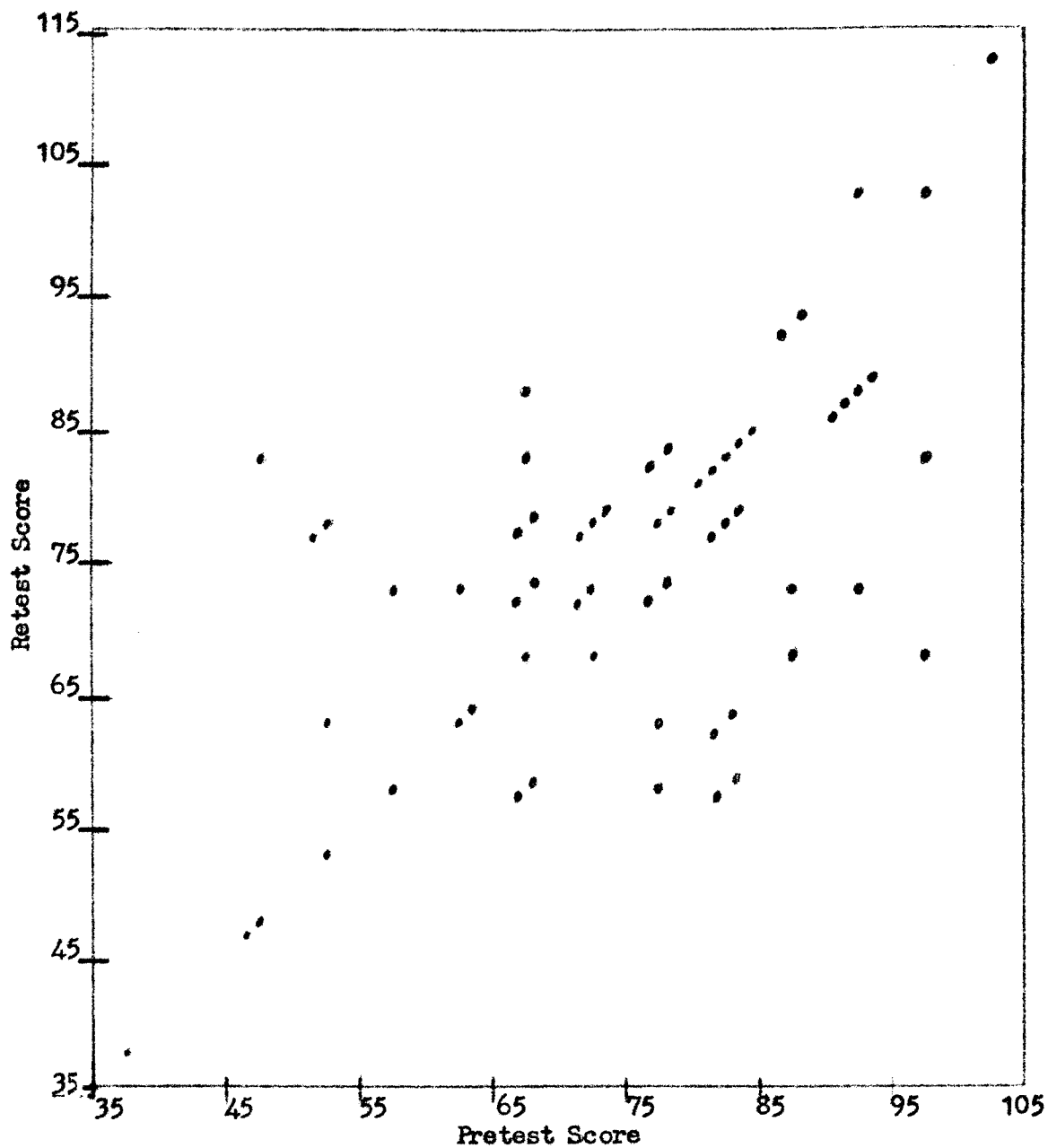


Fig. 5. Coefficient of Stability for the Patients Opinion Poll
 $r = .61$

greater caution had been used in selecting patients for this experiment. As a group, the NP-TB patients showed less interest in the attitude scale than patients on psychiatric wards, and an inspection of the record blanks revealed that nearly all of the individuals who produced the most variable scores came from NP-TB wards. This finding might be accounted for, in part, by the disclosure that during the time interval between testings there were so many personal thefts on one building that the medical chief of the service threatened to "get tough" with the patients there unless it ceased. In addition, the writer felt that a number of these patients were not capable of exercising the accurate introspective perception necessary for completing an attitude scale.

Validity of the Patients Opinion Poll

Hypothesis 3: The validity of the attitude scale was estimated by comparing the scores of two groups of patients who were presumed to have different attitudes toward their wards because of the differences in the organization of and treatment on their wards. An experimental group of patients was exposed to a therapeutic community type of psychiatric treatment situation, and a control group of patients remained in conventional treatment on other wards of the hospital. Both groups were pre- and post-tested, the interval between testings being approximately one month. The results, presented in Table 2, indicate that the experimental group changed on the average of sixteen and one-half points in the direction of favorableness, while the control group changed on the average of only two points in the same direction. Both the gross and net changes were statistically significant ($p < .025$). It should be noted that the slight change in attitude on the part of the control group

Table 2

Change in Mean Score on the Patients Opinion Poll as a Result of
Four Week's Exposure to the Experimental Treatment Setting

Group	N	<u>Mean Score</u>		<u>Difference</u>		p
		Pretest	Retest	Gross	Net	
Experimental	20	69.50	86.00	16.50		<.005
Control	20	73.25	74.95	1.70		ns
Total	40				14.80	<.025

stems primarily from the change in attitude on the part of one patient who was transferred from a locked to an open ward during the time interval between testings. He rated the open ward 39 points higher than the locked one. In general, the results of the validity experiment are encouraging. They indicate that, on the average, patients who are exposed to a therapeutic community type of psychiatric treatment situation experience a favorable change in attitude toward the ward, while their peers in conventional treatment are remaining rather constant in their attitudes toward their wards.

Discussion

The experimental results presented above indicate that the Patients Opinion Poll is a reliable and valid methodology for assessing the attitudes of psychiatric inpatients toward their hospital wards. There appears to be some need for additional evidence regarding the dependability of scores earned on the scale if it is to be used in investigations where there is interest in differentiating among patients in a group. The writer plans to gather this

evidence by developing a parallel form of the scale. In view of the fact that all 82 statements of the preliminary attitude scale were found to differentiate significantly between the average responses of the high and low criterion groups, it should be possible to construct a parallel form with 28 of the 54 remaining statements. A coefficient of equivalence could be determined by administering each of the two forms to a sample of patients on two different occasions and correlating the scores. This coefficient would provide an estimate of the extent to which the attitude scale is specific to the particular statements utilized, and it would not be as vulnerable to the effects of memory and familiarity with the scale which tend to influence the coefficient of stability. Further, a parallel form might help to overcome the resistance which a number of patients showed to taking the same form a second time.

Also, there is need for greater evidence concerning the attitude scale's validity. This might be gathered by enlarging the control and experimental groups and retaining the test-retest procedures employed in this study. Enlarging the groups, however, would require a considerable amount of time to obtain a small number of patients for study. It was necessary to pre-test 136 patients over a seven month's period of time in order to obtain the 40 subjects reported on. A large number of patients did not accept or were not allowed to accept the initial invitation to visit the experimental ward. Hence, it would appear to be necessary to develop another method for checking the validity of the attitude scale. The most feasible method might involve the developing of a rating scale or behavior checklist which would enable an investigator to record his observations of a given patient's behavior and verbalizations which relate to feelings about the ward situation. Attitude

scale scores could be correlated with scores based on the rating scale, the rating scale serving as an external criterion of morale in the sense that the term is used in this study.

Also, correlations between the Patients Opinion Poll and other more general measures of morale (Hall, 1934; Sletto, 1937; Remmers, 1954) might be obtained in order to determine the degree of relationship between these measures. Such results would provide information about the variable of morale and the interrelationships of the several "morales" to which McNemar (1946) refers.

At present, the writer plans to check the validity of the attitude scale by periodically administering it to random samples of patients on several wards of a large V. A. hospital. Mean scores will be obtained for each of these wards and they will be correlated with such data as the average number of elopements, irregular discharges, especially those granted "against medical advice," and disciplinary actions for a set period of time on these wards. These kinds of data seem to be especially relevant to the morale level of a given ward. For example, the writer has observed that the largest share of "against medical advice" discharges from the hospital seem to be occurring on two wards of one building. This kind of discharge generally occurs when there is genuine dissatisfaction on the part of the patient; as such, it is an indication of unfavorable feelings toward the ward.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Evidence substantiating the influence of social forces upon the clinical course and recovery of psychiatric patients and parallel developments in socio-cultural theory have been instrumental in precipitating the dramatic changes which are occurring in mental hospitals. The already effected and recently proposed innovations in the organizational structure and treatment programs of many mental hospitals, as well as in the training of psychiatric personnel are representative of the current emphasis being placed upon the utilization of socio-psychological processes in the treatment of individuals hospitalized for psychiatric conditions. There is widespread belief that these disorders are caused by adverse environmental circumstances and that they can be most effectively changed by the exposing of individuals so affected to an optimal social climate. In keeping with the goal of social recovery, stress is placed upon helping individuals to establish and maintain mutually beneficial interpersonal relationships.

An attempt has been made to provide a review of some of the publications which are basic or related to the present study. Several anecdotal reports (Klemes, 1951; Michaels, 1947; Todd & Wittkower, 1948) stressing the relationship of morale to therapeutic outcome in the psychiatric hospital and one descriptive account of the breakdown of morale in a mental hospital (Stanton & Schwartz, 1954) were cited and evaluated. It was noted that there was a

paucity of studies dealing with morale in this setting, the majority of such studies being focused on the morale of industrial workers and armed forces personnel. The conceptual disagreement surrounding the concept of morale and the attempts at clarification by several parties (Sletto, 1937; National Research Council, 1940; Child, 1941; Gladston et al., 1958) as well as McNemar's (1946) empirically sound proposal for bringing order into this area were reviewed. In keeping with the first two aspects of McNemar's plan, favorableness of regard for the ward was postulated as being one component of morale in the psychiatric hospital in much the same way that Campbell (1955) postulated "happiness" as being an indicant of the morale of submarine crews. Further, a unidimensional attitude scale was proposed as the methodology for assessing this variable.

The concept of attitude was discussed, and a brief resume of its origins was presented. It was noted that there is an implied or explicit emphasis upon readiness to respond in the repertoire of current American definitions of attitude. The predominant tendency to regard attitude as a hypothetical or latent variable and to define it in terms of the correlations which exist among responses to a specified set of stimuli, or social objects, was mentioned by way of indicating the rationale for measuring attitudes. Some of the assumptions underlying the development of attitude scales and various methods employed in constructing them were discussed. Various reasons for selecting the method of summated ratings as a technique for developing the attitude scale were presented.

Several studies of the attitudes of psychiatric patients were evaluated critically. The investigations by Hatch (1948) and Caudill (1958) were

focused on attitudes toward various aspects of particular mental hospitals; in each case the data were obtained by interview methods the objectiveness and completeness of which is questionable. Further, their results are peculiar to the settings in which they were gathered and difficult to quantify for purposes of comparison. Most of the other studies of patients' attitudes (Souleson, 1955; Klopfer *et al.*, 1956; Reznikoff *et al.*, 1959; Brady *et al.*, 1959; Wolfensberger, 1958; Imre and Wolf, 1962) are focused on the attitudes of psychiatric patients toward "mental hospitals" and utilize as their methodology for assessing these attitudes the scale developed by Souleson (1955). Although credit was given to Souleson for suggesting that an attitude scale such as hers might be used in assessing patient morale, several criticisms were leveled against her scale. First, none of her statements deal with any kind of interpersonal relationships, an aspect of life in mental hospitals that must certainly constitute one of the subclasses of statements within the universe, or class, of all possible statements that can be made about a mental hospital. This omission, plus the lack of contradictory evidence, suggests that Souleson relied upon her intuition in writing and selecting statements for her scale, a questionable and unreliable procedure. Also, the failure of Souleson's scale to distinguish groups which on an *a priori* basis were expected to reveal differences in attitude and the paucity of cross-validated findings raised doubts regarding the usefulness of the Souleson scale.

In summary, a review of the literature dealing with the morale of psychiatric inpatients indicated the need for a more systematic means of investigating this important variable. The literature dealing with attitudes and their measurement revealed several ways of carrying out this investigation.

And previous studies of patient attitudes either were focused on different psychological objects or employed methods and procedures which have serious shortcomings. The need for a reliable and valid means of assessing the attitudes of psychiatric patients toward their immediate treatment settings, their wards, was indicated.

The present study deals with the development and standardization of a methodology for assessing the attitudes of psychiatric patients toward their hospital wards. Previous studies of the attitudes of psychiatric patients have been focused on different features of the hospital setting or have utilized methods of data collection which do not lend themselves to quantification for purposes of comparison. In this study attention was focused on the ward situation and there was interest in determining whether changes in attitude toward the ward are associated with differences in treatment procedure on the ward. Hence, it was necessary to develop a reliable and valid means of measuring change in attitude.

A preliminary form of the attitude scale was constructed with statements obtained from four major sources. The literature dealing with mental hospitals including the accounts of former patients, was surveyed. One hundred-twelve patients on various wards of a large psychiatric hospital were administered a mimeographed series of ten incomplete sentences dealing with various ward topics. Tape-recorded, open-end type interviews with patients were used as another source for statements. Finally, the transcribed minutes of a large number of patient-council meetings were searched for content pertaining to ward situations which concerned patients. The obtained statements were compiled and classified. One hundred and forty-two statements, covering one

or more aspects of all the major areas mentioned in the data, were selected and submitted to six psychologists for evaluation. A preliminary attitude scale consisting of 82 statements resulted from this analysis.

The responses of 200 patients on the preliminary form of the attitude scale were scored according to the method of summated ratings. The scores were arranged in a frequency distribution, and criterion groups consisting of the upper and lower 27 percent were selected. The protocols of these high and low scorers were utilized in calculating t-values for the 82 statements. All of the statements were found to be capable of eliciting clear differences of attitude. Twenty-eight of the 82 statements were selected for the final form of the attitude scale. They were scaled according to the multiple category method and found to be somewhat unevenly distributed through the unfavorable-favorable continuum, there being about twice as many statements with positive scale values as negative scale values. The multiple category method was used in calculating normal deviate weights for the five scoring categories of each statement. Fifty-seven attitude scale protocols were re-scored on the basis of these weights and correlated with scores based on integral weights. The resulting coefficient (.99) reflected a high degree of correspondence between scores based on the two systems and justifies retaining the simpler method of integral weighting for scoring the scale.

The reliability of the attitude scale was estimated in two ways. A split-half reliability coefficient of .95 was obtained by correlating the scores of 57 psychiatric patients on the even numbered statements with their scores on the odd statements and by applying the appropriate Spearman-Brown correction formula. A test-retest reliability coefficient of .61 was obtained

by correlating the scores of 62 psychiatric patients on two different occasions, the intervening period being slightly more than two weeks. Both of these coefficients are significant beyond the .001 level.

Evidence of the attitude scale's validity was estimated by comparing the scores of randomly selected experimental and control groups. The experimental group was exposed to a therapeutic community type of psychiatric treatment for approximately one month, while patients in the control group remained on the hospital wards to which they had been assigned. It was hypothesized that the mean score of the experimental group on the attitude scale would be significantly higher after this treatment than before. The experimental and control groups were pre- and post-tested. Results indicated that the patients in the experimental group experienced a significant change in attitude ($p < .005$), producing post-test scores which on the average were more than seventeen points higher than their pre-test scores, while the patients in the control group remained relatively constant in their attitudes toward their wards, earning post test scores which on the average were less than two points higher than their pre-test scores. Also, the net change based on the difference between the post-test means of the two groups was highly significant ($p < .025$).

On the basis of the experimental results, it was concluded that the attitude scale is a reliable and valid methodology for assessing the attitudes of psychiatric patients toward their wards. The ease and speed with which the scale can be administered will make it possible to study and compare larger groups of patients than has been possible with the interview methods used in previous studies of patient attitudes.

If one accepts the widely held conviction that disordered psychological

functioning is largely a function of the social setting in which it occurs, it follows that methodologies must be developed to study the nature of social climates. The scale developed in this study was used in evaluating a therapeutic community, and it was sufficiently sensitive to detect changes in attitude which occur as a result of exposure to this kind of social climate. Other uses to which the scale can be put were proposed and discussed.

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FOOTNOTES

1. Chestnut Lodge, Maryland.
2. Four were PhD. level psychologists on the staff of the Downey V. A. Hospital. Four were V. A. trainees from two universities in the Chicago area. All of the judges had clinical experience on the ward level.
3. This description is based on an unpublished research plan, mimeographed by the Psychology Service of the Downey V. A. Hospital and entitled "An operational analysis of the philosophy, methods, and results of the Downey Motivation Unit" (Hoover, 1961).

APPENDIX I
INCOMPLETE SENTENCES FORM

Directions: This is one part of a hospital research project. For this we need to know what people think about their different wards. We would greatly appreciate your cooperation.

The beginning words of some sentences are printed below. Please complete them in your own words. Feel free to say what you think. You do not need to sign your name.

1. Being on this ward makes me feel . . .
2. The best thing about this ward is . . .
3. The staff members on this ward should . . .
4. Those patients who don't like being on this ward . . .
5. The worst thing about this ward . . .
6. Those patients who like being on this ward . . .
7. The therapy program on this ward is . . .
8. The aides (nursing assistants) on this ward . . .
9. If I were in charge of this ward, I would . . .
10. The best thing about the staff members on this ward is . . .

Additional Comments

APPENDIX II
STATISTICAL DATA FOR SCALING

Item	Frequency					Proportions					Cumulative Proportions				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	0	1	2	3	4
1	53	117	14	12	4	.26	.59	.07	.06	.02	.020	.080	.150	.735	1.000
2-	9	9	32	107	43	.04	.04	.16	.54	.22	.045	.090	.250	.785	1.000
3	46	117	24	11	2	.23	.58	.12	.06	.01	.010	.065	.185	.770	1.000
4	33	108	29	20	10	.16	.54	.15	.10	.05	.050	.150	.295	.835	1.000
5-	7	21	33	107	32	.04	.10	.16	.54	.16	.035	.140	.305	.840	1.000
6	47	114	16	20	3	.24	.57	.08	.10	.01	.015	.115	.195	.765	1.000
7-	6	19	51	98	26	.03	.09	.26	.49	.13	.030	.125	.380	.870	1.000
8	44	126	18	9	3	.22	.63	.09	.04	.02	.015	.060	.150	.780	1.000
9-	12	22	20	110	36	.06	.11	.10	.55	.18	.060	.170	.270	.820	1.000
10-	10	26	47	90	27	.05	.13	.24	.45	.13	.050	.180	.415	.865	1.000
11	47	106	25	16	6	.24	.53	.12	.08	.03	.030	.110	.235	.765	1.000
12-	5	14	45	105	31	.02	.07	.23	.52	.16	.025	.095	.320	.845	1.000
13-	15	29	36	96	24	.08	.14	.18	.48	.12	.075	.220	.400	.880	1.000
14	49	115	16	18	2	.24	.58	.08	.09	.01	.010	.100	.180	.755	1.000
15-	8	20	34	106	32	.04	.10	.17	.53	.16	.040	.140	.310	.840	1.000
16-	10	23	34	101	32	.05	.12	.17	.50	.16	.050	.165	.335	.840	1.000
17	46	99	25	24	6	.23	.50	.12	.12	.03	.030	.150	.275	.770	1.000
18-	12	45	33	87	23	.06	.22	.16	.44	.12	.060	.285	.450	.885	1.000
19	40	94	31	25	10	.20	.47	.15	.12	.05	.050	.175	.330	.800	1.000
20	55	107	15	15	8	.27	.54	.07	.08	.04	.040	.115	.190	.725	1.000
21-	7	9	30	111	43	.04	.04	.15	.56	.21	.035	.080	.230	.785	1.000
22	45	105	25	19	6	.22	.52	.13	.10	.03	.030	.125	.250	.775	1.000
23	45	123	16	12	4	.22	.62	.08	.06	.02	.020	.080	.160	.775	1.000
24-	5	18	34	104	39	.02	.09	.17	.52	.20	.025	.115	.285	.805	1.000
25	41	97	28	22	12	.21	.48	.14	.11	.06	.060	.170	.310	.795	1.000
26-	9	36	45	88	22	.05	.18	.22	.44	.11	.045	.225	.450	.890	1.000
27-	11	20	32	110	27	.05	.10	.16	.55	.14	.055	.155	.315	.865	1.000
28	42	112	22	19	5	.21	.56	.11	.10	.02	.025	.120	.230	.790	1.000

- indicates an unfavorably worded statement.

APPENDIX III
STATISTICAL DATA FOR SCALING

Item	<u>Normal Deviates</u>					<u>Upper Limits</u>				
	0	1	2	3	4	0	1	2	3	4
1	-2.05	-1.40	-1.04	.63	1.11	-2.05	-1.40	-1.04	.63	1.60
2	-1.70	-1.34	-.67	.79	1.24	-1.74	-1.38	-.69	.81	1.75
3	-2.33	-1.51	-.90	.74	1.20	-2.14	-1.39	-.82	.68	1.53
4	-1.64	-1.04	-.54	.97	1.38	-1.67	-1.05	-.55	.99	1.82
5	-1.81	-1.08	-.51	.99	1.40	-1.76	-1.05	-.49	.96	1.76
6	-2.17	-1.20	-.86	.77	1.19	-2.08	-1.15	-.82	.74	1.54
7	-1.88	-1.15	-.30	1.13	1.51	-1.72	-1.05	-.28	1.03	1.73
8	-2.17	-1.56	-1.04	.77	1.23	-1.98	-1.42	-.94	.70	1.53
9	-1.56	-.95	-.61	.92	1.34	-1.65	-1.02	-.65	.97	1.88
10	-1.64	-.92	-.22	1.10	1.19	-1.75	-.97	-.23	1.17	1.36
11	-1.88	-1.23	-.72	.72	1.19	-1.94	-1.26	-.74	.74	1.71
12	-1.96	-1.31	-.47	1.02	1.43	-1.78	-1.19	-.43	.92	1.67
13	-1.44	-.77	-.25	1.18	1.56	-1.49	-.80	-.26	1.22	2.00
14	-2.33	-1.28	-.92	.69	1.19	-2.16	-1.19	-.85	.64	1.57
15	-1.75	-1.08	-.50	.99	1.40	-1.72	-1.06	-.49	.98	1.78
16	-1.64	-.97	-.43	.99	1.40	-1.68	-1.00	-.44	1.02	1.86
17	-1.88	-1.04	-.60	.74	1.20	-1.97	-1.08	-.63	.77	1.74
18	-1.56	-.57	-.13	1.20	1.57	-1.60	-.58	-.13	1.23	2.00
19	-1.64	-.94	-.44	.84	1.28	-1.78	-1.01	-.48	.91	1.87
20	-1.75	-1.20	-.88	.60	1.09	-1.94	-1.33	-.97	.66	1.76
21	-1.81	-1.40	-.74	.79	1.24	-1.81	-1.40	-.74	.79	1.69
22	-1.88	-1.15	-.67	.76	1.22	-1.93	-1.18	-.69	.78	1.72
23	-2.05	-1.40	-.99	.76	1.21	-1.96	-1.34	-.95	.72	1.59
24	-1.96	-1.20	-.57	.86	1.30	-1.90	-1.16	-.55	.83	1.68
25	-1.56	-.95	-.50	.82	1.27	-1.72	-1.06	-.55	.91	1.90
26	-1.70	-.76	-.13	1.23	1.60	-1.63	-.73	-.12	1.18	1.90
27	-1.60	-1.02	-.48	1.10	1.50	-1.57	-1.00	-.47	1.08	1.86
28	-1.96	-1.18	-.74	.81	1.25	-1.93	-1.16	-.73	.79	1.68
L1-1.82						-1.12	-.60	.89	1.73	

APPENDIX IV

WARD RATING SCALE

Directions: This rating scale is part of a hospital research project. The statements printed below were made by patients in various wards of several hospitals. We would like to know if you feel the same way about the ward you are on in this hospital. Please read each statement carefully. Then show how much you agree or disagree with it by underlining one of the five choices under each statement.

Showing how you honestly feel will help us determine the value of present treatment methods. So that no one will know what you think, please do not sign your name. Your help will be greatly appreciated.

1. Most of the personnel assigned to this ward are understanding of the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
2. Time passes slowly on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
3. The nurses who work on this ward do their best to help the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
4. I like to stay away from this ward as much as possible.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
5. The aides on this ward do helpful things even when they don't have to.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
6. There are equal opportunities for everybody on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
7. The aides on this ward play an important part in helping the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
8. Staff members build up false hopes in the minds of the patients on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
9. On this ward, "getting better" means keeping your thoughts to yourself and minding your own business.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

10. The staff members on this ward take time to listen to the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
11. There are too many "stuffed-shirts" on the ward staff.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
12. The aides on this ward are afraid of the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
13. On this ward, you get cooperation from the staff members.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
14. There are too many fights on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
15. There's too much waiting on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
16. The staff members of this ward spend too much time on coffee breaks.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
17. The staff members on this ward play favorites.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
18. The medical doctor(s) who serves this ward is doing all he can to help the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
19. The therapy program on this ward is very helpful to the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
20. The pass procedure on this ward is fair.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
21. You don't see many smiles on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
22. I don't place much trust in what they promise the patients on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
23. Hardly anyone on this ward understands me.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
24. The patients on this ward have confidence in the staff.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
25. There is a spirit of cooperation among the staff on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
26. The aides on this ward do a fine job.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

27. On this ward they make you take tranquilizers whether you need them or not.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
28. The doctors who serve this ward avoid their patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
29. It's hard to find someone to talk with on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
30. Some of the aides on this ward should be fired.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
31. The therapy program on this ward is excellent.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
32. I would transfer to another ward, if possible.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
33. The nurses who serve this ward are too bossy.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
34. The patients on this ward are neglected by the staff.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
35. The staff members on this ward know what they're doing.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
36. The staff members on this ward keep the patients up-to-date on their condition.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
37. The patients on this ward don't get a chance to manage their own affairs.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
38. The doctors who serve this ward spend enough time with the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
39. Several members of the ward staff seem unsure of themselves.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
40. They've done everything they could to make this ward a pleasant place.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
41. The people who run this ward like to "pass the buck".
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
42. The staff on this ward shows little personal interest in me.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
43. There's an optimistic spirit on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

44. I have very few complaints to make about this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
45. I am afraid of what might happen to me if I said what I think about this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
46. It was a real break being assigned to this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
47. The aides on this ward are too bossy.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
48. The nurses on this ward are inclined to forget what a patient asks them to do.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
49. There isn't enough privacy for the patients on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
50. Most of the nurses who serve this ward are excellent.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
51. I just don't like the way they do things on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
52. The patients on this ward get chances to make suggestions.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
53. They give you enough freedom on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
54. There's a lot of talk and little action on the part of this ward's staff.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
55. Some of the staff members on this ward could stand some psychiatric treatment.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
56. Most of the staff members on this ward are doing as much as they can to help the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
57. The aides on this ward are understanding of the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
58. I am happy on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
59. Those patients who are able to take on responsibilities can do so on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

60. The staff members on this ward take time to talk with patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
61. Being on this ward helps me make my own decisions.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
62. There are too many rules and regulations on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
63. This ward is depressing.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
64. They treat you like a human being on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
65. On this ward you can be of real help to others less fortunate than yourself.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
66. The doctors who serve this ward think they "know it all".
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
67. The ward doctor is a nice guy.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
68. On this ward, they treat the patients like human beings.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
69. On this ward, the nurses are patient and understanding.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
70. They treat you like an individual on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
71. It's upsetting to be on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
72. They don't give the patients enough reading material on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
73. The staff members of this ward seem to know what they're doing.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
74. The aides on this ward are interested in their work.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
75. On this ward, they're too strict about patients lying on their beds during the day.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
76. Being on this ward helps me feel better about the future.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

77. Being on this ward has helped me.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
78. Being on this ward does more harm than good to a patient.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
79. There's too much noise on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
80. The aides on this ward are lazy.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
81. There's not enough to keep you busy on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
82. They do their best to keep this ward neat and clean.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

APPENDIX VI

PATIENTS OPINION POLL

Directions: This poll is part of a hospital research project. The statements on the following pages were made by patients in various wards of several hospitals. We would like to know how you feel about these conditions on your ward. Read each statement carefully. Then show how much you agree or disagree with it by underlining one of the choices under each statement.

Showing how you honestly feel will help to determine the value of present treatment methods. You do not need to sign your name. Your help will be greatly appreciated.

1. The patients on this ward get chances to make suggestions.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
2. Being on this ward does more harm than good to a patient.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
3. There is a spirit of cooperation among the staff on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
4. Being on this ward helps me make my own decisions.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
5. The doctors who serve this ward think they "know it all".
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
6. They've done everything they could to make this ward a pleasant place.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
7. The staff members on this ward play favorites.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
8. On this ward, they treat the patients like human beings.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
9. It's hard to find someone to talk with on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
10. I don't place much trust in what they promise the patients on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

11. Being on this ward has helped me.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
12. I just don't like the way they do things on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
13. The patients on this ward don't get a chance to manage their own affairs.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
14. The staff members on this ward take time to listen to the patients.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
15. There are too many rules and regulations on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
16. This ward is depressing.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
17. The aides on this ward do helpful things even when they don't have to.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
18. You don't see many smiles on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
19. Being on this ward helps me feel better about the future.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
20. They give you enough freedom on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
21. The patients on this ward are neglected by the staff.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
22. There are equal opportunities for everybody on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
23. The staff members of this ward seem to know what they're doing.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
24. Some of the aides on this ward should be fired.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
25. I am happy on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
26. There's too much waiting on this ward.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree
27. The nurses on this ward are inclined to forget what a patient asks them to do.
(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

28. I have very few complaints to make about this ward.

(1)Strongly agree (2)Agree (3)Undecided (4)Disagree (5)Strongly disagree

APPROVAL SHEET

The dissertation submitted by William Gregory Klett has been read and approved by five members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the dissertation is now given final approval with reference to content, form, and mechanical accuracy.

The dissertation is therefore accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.

January, 1963
Date

Frank Mobler
Signature of Adviser