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## The Assessment of Patient Morale by the Use of an Attitude Scale

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THE ASSESSMENT OF PATIENT MORALE  
BY THE USE OF AN ATTITUDE SCALE

by

Paul Robert Kennedy

A Thesis Submitted to the Faculty of the Graduate School  
of Loyola University in Partial Fulfillment of  
the Requirements for the Degree of  
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## LIFE

Paul Robert Kennedy was born on September 11, 1939, in Jessup, Pennsylvania. In 1957 he graduated from St. Patrick High School of Olyphant, Pennsylvania and in 1961 he received the degree of Bachelor of Science in Psychology from the University of Scranton, located in Scranton, Pennsylvania.

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TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION . . . . .	1
Historical background--Recent changes in mental hospitals--Statement of the problem.	
II. REVIEW OF RELATED LITERATURE . . . . .	7
III. DESIGN OF THE RESEARCH . . . . .	21
The ward--Methodology used for the Patients Opinion Poll--The proposed parallel form-- Preliminary comparisons of the two scales-- Hypotheses.	
IV. ANALYSIS OF RESULTS. . . . .	37
V. SUMMARY AND CONCLUSIONS. . . . .	44
BIBLIOGRAPHY. . . . .	50
APPENDICES. . . . .	55

## LIST OF TABLES

Table	Page
1. FAVORABLE AND UNFAVORABLE STATEMENTS ACCORDING TO CONTENT AREA FOR THE PATIENTS OPINION POLL AND PATIENTS OPINION POLL II . . . . .	30
2. CHANGES IN THE MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE OF THE PATIENTS OPINION POLL AND THE PATIENTS OPINION POLL II . . . . .	39

## CHAPTER I

The mental hospital as an environment and as an influence upon its patients has been studied with increasing interest since World War II. The first indications of the mental hospital as a social force came from the observations of military personnel who were hospitalized for psychiatric reasons (Bridges, 1943; Michaels, 1947). One conclusion reached was that the spirit, atmosphere, or morale of a psychiatric service is one of the most significant factors influencing therapy or the eventual recovery of the patient. These elements have long been recognized in other areas such as industry. It was in the 1920's when similar conclusions first came out in the form of the Hawthorne reports done at Western Electric. Psychiatry and mental hospitals did not begin to recognize the influence of social forces until World War II when mass treatment became necessary.

The perception of mental hospitals as having more than just a custodial function is now at a point where there is little, if any, disagreement. While the unlocking of doors eliminates tension and it is the absence of tension which brings about improvement (Bell, 1955), it can also be said that in many places where such proposals were made there was a considerable degree of opposition on the part of administrations and staffs. That staff decisions and behavior influence the reactions and attitudes of

patients has been demonstrated (Caudill, 1958; Caudill, Redlich and Gilmore, 1952; Stanton and Schwartz, 1954).

There is much in the literature about the efforts of hospitals to change from custodial to more therapeutically oriented plans, of which those described by Garcia (1960), Jackson and Smith (1961), and Vaughn (1962), Hoover (1963), Pratt and DeLange (1963) are but a few. Each of these emphasizes the necessity of using all personnel as therapeutic agents and of reorganizing administrative setups in an effort to better utilize the available resources. One of the changes that has been found to be useful is the initiation of patient-councils, a form of patient government (Mako, 1961; McGahee, 1961). What has been done here in addition to the self-government has been to increase the amount of communication between staff personnel and patients along with providing respect for the patient's integrity. Such innovations, however, do not always meet with the approval of staff people who consider the best patients and wards to be those that can be described as quiet, passive or well-controlled (Garcia, 1960; Spaner, 1963). They insist on a medical model approach to institutions, an approach which makes difficult any type of innovation including the perception of hospital wards as communities or microcosms of the patient's existence. The positive aspects of this community philosophy have been cogently presented by Jones (1953) and Rapoport (1960).

The theme that is pervasive in all of these citations is the one of viewing each patient's interpersonal relationships as



a vehicle for environmental adaptation and enhancement of his interpersonal world. So-called "back wards" are not perpetuated for there is a sensitivity to the patient's presence. More freedom of movement is available and channels of communication are opened. Consequently, his stay in the hospital is seen in terms of socio-psychological principles. In what has been called the "therapeutic community" approach the emphasis has been on providing an environment in which the patient can engage in reality testing, develop self-awareness, and self-control while becoming implicitly aware that he is responsible for his behavior and that with the resources available to him it will be he who will determine the future course of his life. In the democratic aspect of community living he becomes cognizant of his interpersonal world and of the interdependence between the world and himself. The results of this approach are generally described as favorable, but it is here that the certitude ends. Only fragments of information are available from studies employing scientific methodology. One such fragment, however, is reported by Rapoport (1960) wherein a follow-up study of discharged patients revealed that 52 per cent of the people in treatment over seven months were improved, but only one-third of all others met their criteria. Still, such "facts" only provide information of limited value for the question of causation is not answered solely by a meaningful difference between groups.

In the past 10 years, efforts have been made to reduce such conclusions to testable hypotheses. One of the areas that

has arisen is the testing of patient attitudes by various methods, including scales. Souelem (1955) was the first to develop an attitude scale for use in determining the attitudes of psychiatric patients. Others interested in the area of patient attitudes have combined the scale with other forms of measurement (Reznikoff, Brady, and Zeller, 1959). This scale measures attitudes toward the hospital. Klett (1963) developed a scale to measure the more generic aspect of attitudes toward the ward since the ward is the patient's principal life area while in the hospital. Pisani (1964) investigated the attitudes of alcoholic patients toward the alcoholic treatment center in which they are hospitalized.

This study will use the scale developed by Klett and a proposed scale to measure the attitudes of patients toward the ward to which they are assigned. Klett's scale has been found to be statistically reliable and valid. However, test-retest reliability (.61) was not as high as is desirable for this type of assessment. This study further deals with the development of a parallel scale to the one developed by Klett.

These aims have led to the formulation of the following hypotheses with which the present study is concerned:

1. If the Patients Opinion Poll and the Proposed parallel form are equal scales, there will be a high correlation between the two forms on each administration. Specifically, if the scales are equivalent there will be a high correlation on both the test and retest administrations.

2. If the two forms are equal forms, then the differences between the means on either administration will not be significant. This will allow for a point by point similarity when comparing a score obtained on one form with that obtained on the other.

3. It is predicted that a random selection of patients will have more favorable attitudes than patients in the hospital less than three weeks. A random selection is used in the present study whereas Klett's patient group had an average stay of three weeks at the time they were first tested. The longer adjustment period and the diminution of acute symptoms are felt to enable the patient to respond more favorably to his environment.

4. The difference between test and retest scores for either form will not be significant. It is assumed that no event of any real consequence will occur in the interim of approximately four weeks that would alter the attitudes of the respondents.

5. The coefficient of stability for the scales will be less in the present experiment than that obtained by Klett for the Patients Opinion Poll in his study. The subjects in the present study are considered to be more heterogeneous in terms of length of stay in the hospital than the neuropsychiatric-tuberculosis patients utilized by Klett in his stability study. The attitudes of the latter are thought to be more stable or fixed.

The scales can be of benefit in several ways. With the development of the parallel form patient attitudes can be meas-

ured more than once without the contaminating influence of memory or the low test-retest reliability obtained by Klett. The scales can then be administered within short periods of time and be relied upon to give dependable results. These results can be considered as reflecting changes in the attitude measured by the scales.

The scales will complement the information gathered by observation and questioning. The scales are easily administered and comprehended. For the vast majority of patients all that is needed is their cooperation while group administrations of the scales present no particular problems. Thus, they can be conveniently used for measuring the changes that occur because of changes in hospital policies, treatment, personnel, innovations, etc. The influence of the policies of various wards can be compared, assuming that all other factors are held constant. It may be possible to ascertain what kinds of attitudes are related to early discharge or success of hospitalization.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

Most of the literature deals with the attitudes of psychiatric inpatients toward aspects of the hospital setting or with the relationship of hospital morale to therapeutic outcome. All of these studies, except for those of Klett (1963) and Pisani (1964), differ in some respect from the present research in regard to either purpose, method, population studied, or research design. The literature will be reviewed under two general headings, one dealing with attitude change.

#### Attitude Concepts

A concept that is often associated with attitude is the one of morale. In many instances no distinction is made. The importance of morale has been acknowledged by many (Klemes, 1961; Michaels, 1947; Stanton and Schwartz, 1954) and suggestions are offered for its improvement. Noticeably lacking are attempts at defining morale and, except for Stanton and Schwartz, quantitative results are not offered. The Stanton and Schwartz study, however, is lacking in objectivity and is difficult to replicate because the data collection was influenced by participant observation. Representativeness is lacking due to the study being done in a private hospital. One of the main findings of this

widely publicized study is what has become known as "the Stanton and Schwartz effect." A conflict that was initially a staff conflict and not expected to have any wider scope was soon found to be affecting most, if not all, of the members of the institution. This is further verification for the notion of interrelatedness in the patient's hospital life.

In the few attempts to define morale, reference is made to a sense of well-being. Campbell (1955) used forms of the term "happiness." For Gregory (1959), morale is how people feel in relation to their surroundings. It is the emotional reaction and adjustment to their environment. How people feel appears to be a common denominator for morale definitions.

In the general definitions of attitude the emphasis is not on feeling, but upon readiness to respond. Cardno (1955) called this common denominator "directionality." Allport (1935; 1937) and Nelson (1939) have extensively reviewed attitude definitions up to the time of their reviews. Allport's (1935) definition reflects the results of these surveys. He defines attitude as "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). For Bogardus (1928) and Bird (1940), readiness to respond is synonymous with attitude. A few authors embrace a psychosomatic perspective in which there is an absolute dependence of mental attitude upon motor attitude (Bull, 1946; Grace and Graham, 1952; Johnstone, 1953).

More recently, the concept of affectivity has been entering into the definitions of social attitudes (Krech and Crutchfield, 1948; Green, 1954; Peak, 1955; Smith, Bruner, and White, 1956; Rosenberg, 1956). However, the first reference to a conative element was made by Thurstone and Chave (1929). Thurstone later reiterated this position by stating that attitude is "the degree of positive or negative affect associated with some psychological object" (Thurstone, 1946, p. 41). Webb (1959), Klett (1963), and Pisani (1964) all felt that the best operational definition was that of Thurstone. It was thought by these writers that Thurstone's definition provided a rationale for attitude measurement. Since the present study is concerned with the assessment of attitudes, Thurstone's definition will be used.

In making inferences as to what behavior will take place as a result of particular attitudes it must be kept in mind that knowing a person's attitude is not the same as knowing what he will do (Thurstone and Chave, 1929). Nevertheless, since the concept of attitude refers to a "consistency among responses to a specified set of stimuli, or social objects" (Green, 1954, p. 335) and by definition is a readiness to respond, correlations which exist between responses can be expected to reflect an underlying variable, either implicit or explicit. With such a framework it is possible to equate an attitude with a response or readiness to respond that is a result of the attitude.

For attitude measurement then, it is necessary to have a number of statements that are representative of the object in

question and that these statements be capable of eliciting differences in the belief systems of the respondents. "The initial and basic problem of attitude measurement is to assemble a set of carefully worded, insightful items that cover the area in question (Green, 1954, p. 365). Statements upon which there is little agreement or disagreement and those which would be considered factual are eliminated because of their failure to elicit differences.

Statements can be collected from numerous sources, e.g., review of literature, sentence completion techniques, open-end interviews, and notes of patient-council meetings. The statements should then be reviewed according to criteria advocated by Thurstone and Chave (1929), Wang (1932), Ferguson (1939), McNemar (1946), and Edwards (1955). Klett (1963) and Pisani (1964) have cited some of these criteria in their entirety.

The collected set of statements for the attitude scale can then be submitted to a group of judges who indicate the favorableness and the degree of such as indicated by each statement. The scale value of each statement is obtained on the basis of the judges' ratings and is then used in scoring the responses of subjects to the statements. Judges are so utilized in the equal-appearing interval methodology of attitude scale construction (Thurstone and Chave, 1929).

Instead of submitting the statements to judges they may be submitted to subjects. The items which are effective in differentiating between respondents with favorable and those with unfavorable attitudes are retained in the actual attitude scale.



This procedure forms part of the methodology of the summated ratings technique (Likert, 1932).

According to McNemar (1946), the basic requirements for attitude scale construction are reliability, validity, and unidimensionality. He suggested control-experimental conditions for studying the formation or learning of attitudes. This could best be carried out by means of a combination of the summated ratings method and an appropriate scaling technique. Up to this time, the principal criticism of the summated ratings technique was that it did not measure all degrees of attitude (Ferguson, 1939; 1941) with the middle range being the most frequent inadequately measured area. Stated in another way, there was not a continuum of scores. Webb and Kobler (1962), Klett (1963), and Pisani (1964) have demonstrated that such a continuum could be obtained. In addition, the preferability of this method of using subjects rather than judges to determine the discriminating power of an item is supported by experimental evidence (Upshaw, 1962) which suggests that methods involving judges may eliminate as "ambiguous" potentially discriminative statements before they are rated by subjects.

### Attitude Change

Questionnaires and interviews are the most frequent measurement techniques, as Katzell (1958) has pointed out, and are the least satisfying. Their simplicity does not justify their usage except for cursory types of data collection. Causative relationships are thought to be found, e.g., Toch (1957), while

it is assumed that the technique used measures what it has set out to measure. Reliability and validity are more often assumed than demonstrated.

Souelem (1955) reported that after a survey of the literature she found no scale for assessing the attitudes of mental patients toward mental hospitals. Since the mental patients are the persons most involved in the treatment setting she felt it was important to know what they thought of the hospital. After constructing an equal-appearing interval scale by the procedures outlined by Thurstone (1929), she administered the scale to two groups of male mental patients. The results showed the admission and the more active convalescent wards to have more favorable attitudes toward mental hospitals than the more chronic and semi-convalescent wards. No significant differences were found: between attitudes and patients' ages; among the scores of patients in the various diagnostic categories; between comparable wards in the same hospital.

Souelem, however, was interested in patient attitudes toward "mental hospitals," rather than the basic organizational unit known as the ward. Her statements have little to do with the interpatient and patient-staff relationships--seventy of her 72 statements contain the words "mental hospital(s)." Statements were accepted or eliminated by judges without ever being administered to test their discriminatory value.

Klopper, Wylie, and Hillson (1956) administered Souelem's scale to six groups of subjects with varying degrees of familiarity

with a mental hospital environment. The patient group consisted of 33 psychiatric inpatients of whom 17 were on an intensive treatment service and 16 were on chronic units. The other groups consisted of clerical employees and ward attendants. The patient subgroups did not differ significantly from each other, but did have significantly lower scores of favorableness than did the other groups. The study showed the Souelem scale distinguished certain nonpatient groups from one another, but failed to differentiate significantly between the patient groups. The failure to differentiate patient groups differs with Souelem's results. This difference may stem in part from Souelem's not having tested anonymously.

Reznikoff, Brady, and Zeller (1959) developed the Psychiatric Attitudes Battery as a result of an interest in studying attitudinal influences on the behavior and clinical course of the patient. The tests focussed on the psychiatric hospital, the psychiatrist, and psychiatric treatment. The battery is composed of: the Picture Attitude Test, the Sentence Completion Attitudes Test, the Multiple Choice Attitudes Questionnaire, and the Souelem Attitude Scale. The last three tests are aimed at progressively more conscious attitudes. Scoring procedure and reliability data are given for the Picture Attitudes and Sentence Completion tests. The reliability data, however, pertain only to the ratings made by judges. The dependability of the scores is unknown since repeated measurements were not made. High correlations were found but tests of significance are not reported.

There were no reliability studies done with the Multiple Choice Attitudes Questionnaire and the Souelem Attitude Scale.

Brady, Zeller, and Reznikoff (1959) studied psychiatric hospitals, psychiatrists, and psychiatric treatment by means of their Psychiatric Attitudes Battery. They found that the favorableness of more conscious attitudes was related to the successful outcome of treatment and that those with no previous psychiatric treatment had the most favorable attitudes. An eight-point degree of Improvement Rating Scale was used to assess the relationship between the attitudinal factors assessed by the Picture Attitudes Battery and the outcome of treatment. Favorableness of attitude as measured by the Sentence Completion Attitudes Test (for less conscious attitudes) was not significantly related to outcome, but favorableness of attitude, as measured by the Multiple Choice Attitudes Questionnaire and the Souelem Attitude Scale was significantly related ( $P < 0.05$ ) to outcome. The Picture Attitudes Test did not lend itself to quantification. A significant finding was that those who saw the hospital in supporting, protective, or neutral terms had more favorable outcomes than those who viewed the hospital as grim and threatening.

The sentence completion test produced no significant results. The Picture Attitudes Test is not quantifiable and the multiple choice test does not ask questions in the area of interest to the writer, i.e., the ward. In addition, its development in a private hospital setting does not guarantee its applicability in government hospitals. The previous criticisms of the Souelem

scale apply here.

Libo (1957) developed a Picture Impressions technique by which an attempt is made to predict whether a patient will return for the next interview. The patient writes stories pertaining to pictures which depict a patient and a therapist in various situations. While significant results are claimed the base rate of return is not considered. When the base rate is considered, the 25 per cent false prediction rate is extremely high.

Wolfensberger (1958) investigated the attitudes of alcoholic patients toward mental hospitals by means of the Souelem scale. The scale was administered to 95 newly admitted patients at a state mental hospital, 36 of whom were alcoholics. They were divided into three groups: the first was composed of patients with no history of psychiatric hospitalization; the second was of patients with prior confinement on a psychiatric ward of a general hospital; the third group had patients who previously had been in a mental hospital. Age and education were not found to be significantly related to attitude scale scores. Alcoholics were found to have a significantly more favorable attitude toward mental hospitals than non-alcoholics ( $P < .001$ ). The attitude of the alcoholics was not related to previous hospital classification while non-alcoholics with previous mental hospitalization were significantly less critical than the other two groups.

Imre and Wolf (1962) administered the Souelem scale to four groups comprised of: hospital personnel, alcoholic patients, student nurses, and non-alcoholic patients. In a comparison of

means, non-alcoholics and student nurses had the least favorable attitudes and also tended to be more variable as determined by standard deviations. The hospital personnel and alcoholic patients were significantly more favorably disposed toward mental hospitals than non-alcoholic patients. The differences between the alcoholic and non-alcoholics in this study are questionable owing to the non-alcoholics being psychiatric patients whereas the alcoholics were not so classified.

Imre (1962) in a subsequent study compared the attitudes of 32 female volunteers with those of the hospital personnel and non-alcoholic psychiatric patients studied in the previous citation. The hospital personnel and the volunteers were more favorably disposed toward mental hospitals than the non-alcoholic psychiatric patients. The further conclusion that volunteers and personnel appear to have similar favorable attitudes can be criticized on the basis that while their means and standard deviations are similar the process of how they obtained their scores is unknown.

Webb (1959) studied the attitudes of Catholic seminarians toward psychiatry. An attitude scale was developed by clinical-empirical methods, a suggestion made by McNemar (1946) that combines the Thurstone and Likert methods of attitude scale construction. The scale was able to measure the difference between two matched groups of seminarians, one of which received a treatment (a course) of two weeks. The posttesting of the treatment group was significantly different from its pretest, as was the differ-

ence between the posttest means of the two groups.

Klett (1963) in his investigation of attitude differs from Souelem and the others that used her scale. He developed an attitude scale that focusses on the "ward" rather than "mental hospitals." It measures the patient's more conscious attitudes with an emphasis on interpatient and patient-staff relationships. Unlike Souelem, he used empirical methods for the construction of items and the Likert method to empirically test a statement's discriminatory power. Statements were drawn up from information acquired from tape-recorded interviews, sentence completion forms, literature dealing with mental hospitals, minutes of patient council meetings, and biographical accounts of former mental patients. The statements were evaluated by eight psychologists for clarity, relevance, and whether they reflected favorable or unfavorable regard for the ward. One-hundred per cent agreement on the favorableness or unfavorableness of an item was required for acceptance. Eighty-two statements met the criteria and were administered to 260 patients in order to obtain 200 valid protocols. Criterion groups consisting of the top 27 per cent and the bottom 27 per cent of the raw total scores were selected. 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. Each item was found to differentiate significantly between the groups. A 28-item scale, consisting of 14 favorably and 14 unfavorably worded items, was then composed.

A split-half reliability study of the protocols of 57 psychiatric patients produced a correlation of .95 ( $P < .001$ ). A test-retest reliability study of 62 tuberculosis patients at another hospital provided a correlation of .61 ( $p < .001$ ). Validity was estimated by comparing the scores of two groups of twenty patients who were presumed to have different attitudes toward their wards because of the difference in the organization of and treatment on their wards. Every third admission, as selected from a monthly admissions list, was given the scale approximately two to three weeks after being on their assigned wards. Later, these men received invitations to visit a community-type experimental ward. Those interested in transferring to the experimental ward were randomly assigned to experimental and control groups. The control group members stayed on their respective wards while the experimental members joined the community-type treatment setting. Both groups were retested approximately four weeks after the first testing. From pretesting to posttesting, the experimental group changed an average of 17½ points in the direction of favorableness, while the control group changed an average of only two points in the same direction. The change for the experimental group was significant at the .005 level while the change for the control group was not significant.

Pisani (1964) investigated the attitudes of alcoholic patients toward the alcoholic treatment center in which they were hospitalized. He used an attitude scale that he developed according to the clinical-empirical methods followed by Webb and Kobler



(1962) and Klett (1963). His scale is unidimensional, reliable, and was found capable of measuring differences in the treatment center. However, the scale was developed for an alcoholic treatment center and is not applicable in a mental hospital. In addition, it does not have a parallel form.

The relatively low test-retest reliability of Klett's scale does not provide the degree of dependability that is desired for making conclusions concerning individual changes. A parallel form should provide the increased dependability desired. Changes in test results can then be relied upon to reflect changes in attitude for that aspect of morale measured by the scale. The writer is also interested in using a random selection of patients.

It is hoped that by the adequate assessment of attitudes it may eventually be possible to predict more of the variables, not only in respect to environmental influences, but also in relation to treatment. A number of studies have been done on isolated attitudes of psychotherapy patients. Gordon and Cartwright (1954) found a positive association in neurotic patients between democratic and accepting attitudes toward others and benefit from psychotherapy. Tougas (1954) concluded that neurotic patients who show a high degree of ethnocentrism do less well in psychotherapy than do patients of a less ethnocentric bent. If more general and pervasive attitudes can be found and measured then the conceptual framework of the patient can be more easily and accurately assessed. It has been found by Maier and Lansky (1957) that attitudes select facts or determine which facts will be used

by a person in a discussion or argument. The difficulty with these articles is that attitude is vaguely defined and measured.

In the present chapter it has been shown that while much has been written about the attitudes of psychiatric patients, there is a paucity of empirical studies. Not until the development of the Souelem Attitude Scale (Souelem, 1955) did there exist a tool for the measurement of such attitudes and then the assessment was concerned with attitudes toward "mental hospital(s)" rather than toward the more generic aspect known as the ward. The scale also leaves much to be desired because of the intuitive method used by Souelem in constructing items. Subsequent research studies with the scale have not provided consistent results. Due to these criticisms, Klett (1963) and Pisani (1964) developed attitude scales utilizing a clinical-empirical approach that has resulted in more promising scales for valid assessment.

Klett's scale was developed for use with psychiatric inpatients and the present study is an outgrowth of his work. The purpose of this study is to extend the applicability of the scale by acquiring the results of a random selection of patients and to develop a parallel form, a need which is pointed out by the relatively low stability of Klett's scale.

## CHAPTER III

### DESIGN OF THE RESEARCH

In the present study, Thurstone's (1946) definition of attitude will be adopted. Thus, attitude is "the degree of positive or negative affect associated with some psychological object" (Thurstone, 1946, p. 41). This is the definition used by Klett (1963). The psychological object to be studied is the ward of the psychiatric hospital and the affect is the readiness of psychiatric inpatients to respond positively or negatively to their hospital ward.

For most mental hospitals the ward is the basic organizational structure. It may vary in size, purpose, or patient population, but always consists of people who interact and communicate in varying degrees. In some hospitals wards may be classified as admission or acute treatment wards and chronic or continued treatment wards. The first type typically is involved in the treatment of those people who offer a more favorable prognosis and has the more desirable staff to patient ratio. The chronic ward houses those who need extended treatment or who give little indication of improvement. In other hospitals no distinction is made on such a basis. The hospital utilized in the present study is one of these. The patient is randomly assigned to

an administrative unit which then assigns him to a ward. Only in the cases of readmissions does this randomness not apply. Recidivists are assigned to their previous treatment unit on the assumption that the patient is more familiar with that setup and is better known by the personnel on that unit. A unit is generally comprised of three buildings, each with two to four wards. The primary difference between the wards is in terms of the amount of freedom allowed its patients. There are the locked or closed wards and the open wards in which varying degrees of privileges or freedom are afforded. Generally, the open ward has a higher bed capacity and a lower personnel to patient ratio. The higher bed capacity is feasible due to the reduced amount of time spent on the ward by its members and their greater behavior control. Some wards, in practice, take on a more custodial function than do the other wards of the unit.

Despite the varying amounts of time spent on the ward by its members, the ward is the locus of existence for the patient's hospital stay. It is where he can be said "to belong." It is his home away from home until transferred or discharged. Consequently, he develops feelings about the ward in accordance with the degree to which he feels his needs are being satisfied by placement there. That psychiatric patients view wards as differing in conduciveness for recovery or recompensation is evident from their conversations and comments at patient council meetings.

#### Development and Construction of the Attitude Scale

An attitude scale consists of a series of statements de-

signed to elicit the attitudes or opinions of people toward some person, place or thing. The scale should be representative of all the possible statements that could be made about the object in order to adequately sample the total universe (Edwards, 1957). In addition, the statements should be highly interdependent or homogeneous; the scale should be unidimensional and reliable (Green, 1954).

In gathering statements for the attitude scale, Klett (1963) first reviewed the literature pertaining to the wards of psychiatric institutions (e.g., Caudill et al., 1952; McGahee, 1961). The accounts of former mental patients such as Beers (1953), and publications concerning former mental patients (Alvarez, 1961) were also searched. This review produced a list of nearly one hundred potential statements.

Following the suggestion of Thurstone and Chave (1929), open-ended opinion questions were used as an additional means of gathering statements. The results did not lend themselves to quantification since the quality of the protocols varied and their completion often depended on fortuitous factors such as how many patients are on the ward at the time of testing and what position was taken by patient leaders.

Tape-recorded funnel type interviews with preselected patients was a third method. This produced fewer responses and less variation than the open-ended sentences, leading to the conclusion that an anonymous questionnaire is less threatening than the presence of a tape recorder and interviewer.

A fourth source of initial statements was the minutes of patient-council meetings held on numerous wards of the hospital. These records frequently contained complaints about ward procedures and hospital life as well as specific plans for ward activities. Patient requests were often noted.

The data accumulated from these sources provided 142 preliminary statements that covered all of the topics found in the data. Editing methods consisted of shortening the items and substituting familiar words for abstract terms or ideas. The statements were reviewed according to the criteria advocated by Thurstone and Chave (1929), Likert (1932), Wang (1932), Bird (1940), and Edwards (1957). The 142 statements were submitted to eight psychologists to be rated for clarity, relevance, and whether the statement reflected favorable or unfavorable regard for the ward. On this basis, 68 statements were eliminated. One hundred per cent agreement on the favorableness or unfavorableness of a statement was required in an effort to reduce ambiguity to a minimum. Additional statements were written in order to have an equal number of favorable and unfavorable statements and to retain some of the concepts eliminated because of their embodiment in statements not meeting the above criteria. A preliminary scale of 82 statements was the result of this process.

Subjects were advised that many of the statements were made by other patients and the study was part of a hospital-approved research project. Confidentiality was assured and the value of knowing their honest opinions stressed. The patients

were asked to respond to each statement in terms of their own agreement or disagreement with it. For each statement there were five alternative choices printed under each: (1) strongly agree, (2) agree, (3) undecided, (4) disagree, and (5) strongly disagree. The patients were instructed to choose one of the alternatives.

It was necessary for Klett to administer 261 forms before achieving his goal of two hundred valid records. Records were eliminated because of failure to adhere to instructions, e.g., more than one alternative being selected, and in some cases because only one category was marked for all or nearly all of the statements. In a few cases fatigue seemed to be a factor.

The responses of each patient on the preliminary form were scored by assigning integral weights to each one of the five response categories. The categories were so weighted that patients with the most favorable attitudes would have the highest positive weights. It was assumed that the "strongly agree" category reflected this for the favorably or positively worded statements and the "strongly disagree" category did likewise for the unfavorably or negatively worded statements. 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" a weight of 1, and the "strongly disagree" a weight of 0. For unfavorable statements, the scoring system was reversed, for example, the "strongly disagree" category was assigned a weight of 4. A total score for each patient was then obtained by summing the integral weights of the

categories selected. This scoring procedure is known as the method of summated ratings or the Likert method (Likert, 1932; Edwards, 1957).

An item analysis of the 82 statements was performed to determine whether the statements were capable of eliciting clear differences of attitude toward the psychological object being studied. This was done by arranging the summated scores of the two hundred patients in the form of a frequency distribution. Following this, two criterion groups were determined by selecting the top 27 per cent and the bottom 27 per cent of the summated scores. It has been demonstrated (Kelley, 1939) 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 population tested. As a final step, t-values were calculated for the 82 statements according to the method proposed by Edwards (1957).

Edwards 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 statement differs significantly, provided we have 25 or more subjects in the high group and also in the low group. (Edwards, 1957, p. 153)

With this as the criterion all 82 statements on the preliminary form of the attitude scale were considered as capable of eliciting clear differences of attitude. Twenty-eight statements were selected (see Appendix I) from the fifty with the highest t-values. Due to several statements being similar in content and the first 28 statements not being equally divided into favorable and unfavorable statements, it was not possible to select the 28



statements with the highest t-value. A favorable-unfavorable balance was desirable as an effort to minimize possible response sets. Not being limited to the top 28 statements also allowed for the inclusion of statements covering areas which would have been excluded by a purely empirical approach to selection.

Other methods of item analysis, such as correlational methods, have been used in evaluating individual statements. Murphy and Likert (1937), for example, found that statements selected on the basis of the magnitude of the difference between the means of a high and low group agreed closely with the ordering of the same statements by means of the correlation between the item response and the total score. Webb (1959) used this simpler procedure. He calculated a difference value for each statement and selected for his scale an equal number of favorable and unfavorable statements having the greatest difference values.

In order to justify the use of integral weights the normal deviate weights for each of the response categories was determined by the multiple category method (Rimoldi and Hormaeche, 1955). The normal deviate weights obtained by the multiple category method were utilized in rescoring the 28 items on the protocols of 57 patients gathered in the preliminary administration of the 82 item scale. The total scores obtained by this method were correlated with the summated scores obtained by the integral weights method. A coefficient of .99 resulted from the Pearson product-moment method of correlation. The substantial agreement between the two methods justified using the easier integral

weighting system.

In the present study the first concern is with the construction of a parallel form for the attitude scale developed by Klett (1963). Klett's scale will hereafter be referred to as the Patients Opinion Poll or POP and the proposed parallel form will be known as the Patients Opinion Poll II or POP II. The Patients Opinion Poll has been found to be statistically reliable and able to reflect valid changes. The reliability and validity studies of Klett were mentioned previously. One reliability study, however, did not produce a reliability coefficient as high as is desired. The test-retest correlation of .61 was significant at .001, but there is a 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" (Klett, 1963, pp. 70-71). Since all 82 statements of Klett's preliminary attitude scale were found to differentiate significantly between the response average of the high and low criterion groups, it was thought to be possible to construct a parallel form by using 28 of the remaining 54 statements.

Twenty-eight items or statements were selected (See Appendix II) on the basis of: favorable or unfavorable wording of the statement, similarity of content, and t-value. It was necessary to have an equal number of favorable and unfavorable statements in order to meet one aspect of the Patients Opinion Poll. For content the POP can be divided into statements concerned

with: aides, nurses, doctor, staff, ward, and they. Table I shows the distribution of statements for content area and favorable and unfavorable wording. Complete similarity on these two bases could not be obtained. At this point the closest possible balance was sought. When there was a choice of statements the one with the highest t-value in the preliminary study was selected. There was an overlapping of the t-value range for items used in the POP and those selected for the POP II. The mean t-value for the proposed parallel form was 7.15 as compared to 8.38 for the POP. Since 1.75 was the cutoff point the t-value difference was considered noninfluential. Further examination of the preliminary protocols would provide statistical information on this point.

Following the selection of items, Klett's two hundred preliminary protocols were ranked from lowest to highest on the basis of their summated scores and every fourth one was pulled out. These fifty protocols were then scored for the 28 items in the Patients Opinion Poll and for the 28 statements selected for the Patients Opinion Poll II. Their sums were then correlated to get an idea concerning the comparability of the statements. It was believed that a low correlation would negate further study of the comparability of the two forms and that a high correlation would at least justify further explorations. The resultant reliability coefficient was .94. It was concluded that the mean difference in t-values was not influential and further testing was indicated.

#### Experiments and Hypotheses

Several hypotheses will be proposed and tested. They

Table 1

Favorable and Unfavorable Statements  
According to Content Area for the  
Patients Opinion Poll and Patients  
Opinion Poll II.

	Scale					
	POP			POP II		
	+	-	total	+	-	total
Aides	1	1	2	2	2	4
Nurses	0	1	1	1	0	1
Doctor	0	1	1	1	1	2
Staff	3	2	5	4	4	8
Ward	7	7	14	3	6	9
They	3	2	5	3	1	4
Total	14	14	28	14	14	28

+ = favorably stated items

- = unfavorably stated items

will be presented in numerical order and this system will be used in reporting the results.

Hypothesis 1: If the Patients Opinion Poll and the Patients Opinion Poll II are equal forms, there will be a high correlation between the two forms on each administration.

Method 1: A coefficient of equivalence was obtained by administering the two forms to 58 randomly selected psychiatric patients of the Downey V.A. Hospital. It was necessary to approach 134 patients in order to procure the 58 valid protocols. There were 18 patients who did not show up for the scheduled appointment for a variety of reasons. Some could not be located to be informed, some had other appointments, and a few disregarded the notification they were given by ward personnel. There were 26 who refused or were unable to take the test. Physical injuries, lack of eye glasses, confused mental state, and uncooperativeness were some of the reasons. A total of twenty records were considered to be invalid. Multiple answers, numerous omissions, and marking the same category for every statement were the most frequent factors in eliminating these records. Finally, 12 could not complete the testing sequence due to discharge, leave of absence, or ward transfer after the completion of the first administration. A test-retest counterbalancing technique was utilized. Any practice or fatigue effects will be theoretically held constant by this method (Townsend, 1953). More importantly, the influence of one scale on the other will be equal. Both scales were administered at the same time as one scale, that is,

the two pages necessary for each form were stapled together. Half of the subjects found the Patients Opinion Poll preceding the Patients Opinion Poll II and the remaining 29 patients found the POP following the POP II. When retested the order of presentation for each group was reversed. The test-retest aspect is necessary to another hypothesis, but here it affords an opportunity to obtain two correlations of equivalence, one for each administration.

Hypothesis 2: If the Patients Opinion Poll and the Patients Opinion Poll II are equal forms, then there will be no significant differences between the means on either administration.

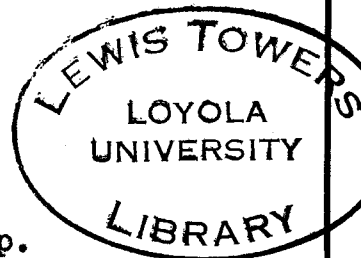
Method 2: A t test will be used to measure the significance of the difference between the means obtained for the POP and the means obtained for the POP II. Fisher's t for testing a difference between uncorrelated means will be used since the samples are independent and patients were assigned to the two groups in a random manner (Guilford, 1956, p. 220). The following formula is applicable:

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2} \left( \frac{N_1 + N_2}{N_1 N_2} \right)}}$$

Where  $M_1$  = the mean score on the POP.

$M_2$  = the mean score on the POP II.

$N_1$  = the number of patients in the POP group.



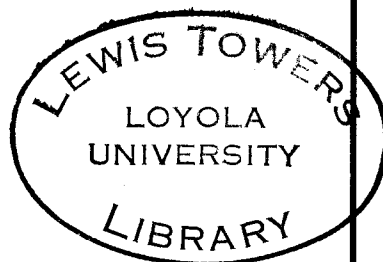
$N_2$  = the number of patients in the POP II group.

$\sum x_1^2$  = the sum of the squares of scores made by the POP group.

$\sum x_2^2$  = the sum of the squares of scores made by the POP II group.

When two samples are of equal size the formula is reduced to:

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N_i (N_i - 1)}}$$



Where  $N_i$  = the size of either sample.

This formula assumes that the sampled populations are alike in variability ( $\bar{\sigma}_x = \bar{\sigma}_y$ ) because a significant value of  $t$  could be found in samples having equal means but different standard deviations. Therefore, the significance of the difference between the independent sample variances was tested by the  $F$  test of differences between standard deviations (Guilford, 1956, p. 224). The  $F$  ratio for the first administration was 1.029 and for the second it was 1.007. Neither is significant at the .05 level. Since the ratio of the variances is not significant then the difference between the standard deviations is not significant. The sampled populations can be considered as having equal variances, thus allowing the use of Fisher's  $t$ .

Hypothesis 3: A random selection of patients will have more favorable attitudes than patients in the hospital less than three weeks.

Method 3: Klett (1963) administered the Patients Opinion Poll to every available third male who was admitted to the psy-

chiatric service. They were tested approximately two to three weeks after living on their wards. It is felt that patients who have been in the hospital for longer periods of time have adjusted to the hospital and in many instances find it more acceptable than being outside of the hospital. Consequently, they view the hospital as satisfying their needs and will respond favorably to the statements that reflect this. It is also felt that patients who don't like the hospital, except those who are legally committed and a few others, eventually leave it, while some who like it will find a way to extend their period of hospitalization. The means obtained on the first administration of the two scales will be compared with the combined pretest mean of Klett's experimental and control groups. The latter can be combined because the placement in the experimental and control group was by random procedure. The t test for samples of unequal size referred to under hypothesis 2 will be used since what is desired is a measure of the significance of difference between means of two independent samples.

Hypothesis 4: There will be no significant difference between test and retest on either of the forms.

Method 4: Approximately four weeks intervened between test and retest. The stability of the scales will be further verified if the scales are not influenced by a short time element. The dependability and comparability of the scores will be more precise and the scores can be considered free of the influence of memory and practice. A t test of differences between correlated



pairs of means will be used because in this aspect of the experiment the same individuals are being compared on two occasions.

The following formula (Guilford, 1956, p. 220) was used:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}$$

Where Md = mean of the differences of paired observations.

xd = deviation of a difference from the mean of the difference.

The F ratio for the POP was 1.055 and for the POP II it was 1.032. Neither is significant at the .05 level. Therefore, the difference between the standard deviations is not significant. This is consistent with Lana's (1959a; 1959b) results which showed that pretesting did not influence the responses of subjects on a post-test.

Hypothesis 5: The reliabilities of the Patients Opinion Poll and the Patients Opinion Poll II will be less than the coefficient of stability obtained by Klett (1963).

Method 5: This is hypothesized on the basis that the greater heterogeneity of the present subjects in terms of length of stay in the hospital will provide a less stable element. Klett's patients in his reliability study of stability were occupants of a neuropsychiatric-tuberculosis (NP-TB) ward. Most of them are hospitalized for long periods of time and often become resigned to their condition. If this is so, their attitudes toward the environment are also likely to become stable or fixed.

They are less likely to show fluctuations than would a random selection of psychiatric patients. The greater heterogeneity of the psychiatric patients facilitates a reduced reliability.

## CHAPTER IV

### ANALYSIS OF RESULTS

The results will be presented in the same order as their related hypotheses were in the preceding chapter.

#### Comparison of the Scales

Hypothesis 1: Two coefficients of equivalence were obtained by administering both scales to 58 randomly selected psychiatric inpatients on two separate occasions. Presentation of the scales followed a counterbalancing sequence; there were approximately four weeks between the testings. The Patients Opinion Poll (POP) and the Patients Opinion Poll II (POP II) yielded a correlation coefficient of .917 ( $P < .01$ ) for the first administration and a correlation of .911 ( $P < .01$ ) for the second administration. The Pearson product-moment method of correlation was used.

The coefficients suggest that considerable confidence can be placed in using the scales interchangeably. Thus, the assessment of patient attitudes can be further expanded by the addition of a parallel form to a scale that has already demonstrated an ability to measure changes in patient attitudes toward the ward (Klett, 1963).

Hypothesis 2: There can be a high degree of correlation between two objects, such as the correlations just examined, and

these objects may still differ significantly in terms of their means. The difference between means of the two scales for the first administration was .86 ( $p > .05$ ). For the second administration the difference between means was .17 ( $p > .05$ ). These results are presented in Table 2. The scores in these two comparisons along with the comparable standard deviations indicate that for the groups a particular score on one scale is comparable to the same score on the other scale. The importance of this similarity is for comparing the scores of subjects who did not take the same scale when administered the test.

#### Cross Validation

Hypothesis 3: A comparison was made between the combined pretest mean procured by Klett (1963) in his validity study and the means produced by the first administrations of the POP and POP II. In these instances the subjects differ only in terms of length of stay in the hospital. The differences of 7.62 and 8.48 between the pretest mean of Klett and the POP and POP II, respectively, are in the predicted direction, but are not significant differences. It is noted that the mean and median length of stay in the hospital at the time of testing was three weeks for Klett's group. In the present study the random selection of patients had a mean length of stay of 53.5 months and a median length of 19.7 months. The skewness reflects, as seen by the contrast between mean and median, the current trend in hospitalization wherein most patients are discharged within three to four months while at the same time there are some patients who are judged to be in need

Table 2

Changes in the Means, Standard Deviations, and Tests  
of Significance of the Patients Opinion Poll  
and the Patients Opinion Poll II.

Administration	POP		POP II		<u>Difference between Means</u>		<u>Difference between <math>\sigma</math></u>	
	Mean	$\sigma$	Mean	$\sigma$	Gross	p	Gross	p
First	79.00	16.07	79.86	14.47	.86	ns	1.60	ns
Second	80.89	14.50	81.06	15.11	.17	ns	.61	ns
Difference	1.89	1.57	1.15	.64				
p	ns	ns	ns	ns				

of hospitalization that can stretch into years. The belief that patients who have been hospitalized for extensive periods of time would be more accepting and, hence, more favorable in attitude toward their ward is rejected in the present comparison. Attitudes toward the ward are not found to be reflected significantly by the length of stay in the hospital of its members.

Hypothesis 4: The stability of the means was examined by comparing the mean acquired on one occasion with that obtained approximately four weeks later. This was done for each scale. The results of the Patients Opinion Poll showed an average increase of 1.89 points in the direction of favorableness while the change on the Patients Opinion Poll II was 1.15 points in the same direction. Neither change is statistically significant. These data are presented in Table 2. The lack of significance in these changes is similar to the results of the control group in Klett's (1963) validity study. Klett's control group differs from the present groups only in respect to length of time in the hospital, a factor that has already been shown to be nonsignificantly related to attitudes toward the ward. It is noted that there is a tendency for the results, in both Klett's study and this one, to show an increase in favorableness of attitude upon retesting. It is concluded, however, that practice, memory, and the four week interval between administrations do not significantly influence the scores.

Hypothesis 5: Coefficients of stability for each of the two scales used in the present study were obtained by means of

the Pearson product-moment method of correlation. The raw score data are the same used for Hypothesis 4. A coefficient of .880 ( $p < .01$ ) was derived for the Patients Opinion Poll and a coefficient of .901 ( $p < .01$ ) was obtained for the Patients Opinion Poll II. The coefficients suggest that considerable confidence can be placed in the stability of the scores. This contrasts with the Patients Opinion Poll test-retest reliability obtained by Klett (1963). He obtained a coefficient of .61 ( $p < .01$ ). A number of factors may account for this difference. There is the possibility that the four weeks between testings of the present study diminished practice and memory effects more so than did the three week interval used by Klett. What is probably a more significant factor is the difference in patient samples. In Klett's study the subjects were 62 neuropsychiatric-tuberculosis (NP-TB) patients while in the present study the subjects are 58 randomly selected psychiatric patients. It is noted that

...it is entirely likely that a higher coefficient of stability would have been obtained if 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. (Klett, 1963, p. 69)

It has been previously mentioned that the present study required 134 subjects to procure 58 valid protocols while Klett obtained his 62 records from a group totaling 98. The greater mobility and discharge rates of the psychiatric patients were factors increasing the mortality rate in the present study.

Patients who are more restricted because of physical condition, as in Klett's group, take on some of the characteristics of a "captured audience." Consequently, they will be less interested and less reliable. The results of the test-retest sequence in the present study indicate that considerable confidence can be placed in the results obtained on two occasions even when the same scale is used each time. However, slightly more reliable results are obtained when the different, but equivalent, forms are used.

### Discussion

The results presented above indicate that the Patients Opinion Poll II (POP II) is, in actuality, parallel to the Patients Opinion Poll (POP), but empirical evidence is needed to show the parallel form's ability to measure change and to measure it to the same degree as the POP. This will provide a further indication of the validity of the POP and the, for now, presumed validity for the parallel form, which is based, inferentially, on its comparability to the POP.

Further studies could be concerned with a study of the favorableness or unfavorableness of attitude on the part of subjects who are discharged. It may be that there is a relationship between attitudes toward the ward and such factors as elopement, prognosis, treatability, and length of time required for hospitalization. The mortality rate (Campbell, 1957) group offers possibilities for study.

These and other such studies are made increasingly possi-



ble by the reliability of each scale and their equivalence. Scores have not been found to be specific to the particular statements utilized. Memory and test familiarity also have been found not to influence the stability of the scales. A parallel form further aids such studies by decreasing the cause for resistance that some patients show when they take the same form of a test a second time. Scores have been found not to be related to such factors as length of stay in the hospital. Such findings add to the hope that the only factor significantly related to changes in scores will be changes in attitudes toward the ward.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

An increasing amount of evidence since World War II has been pointing to the importance of the social-psychological processes of hospitalized mental patients. One of these components is morale and the awareness of its relevance is, at least, partially attributable to the perception of the mental hospital as more than a custodial institution. Interpersonal relationships are now considered so influential that it appears trite to mention them. It is now realized that the hospital and the patient are not separate entities, but that the decisions of one affect the life of the other. This has been ably demonstrated by Caudill (1958), Caudill et al. (1952), and Stanton and Schwartz (1954). It is, therefore, of importance to be able to measure attitude, its aspects, and the elements which result in its changes.

There have been many changes on the part of mental hospitals in an effort to move from custodial to more therapeutically oriented hospitals. Hospital innovations such as the unlocking of doors (Bell, 1955) have been adequately emphasized in the literature. There have also been more pervasive attempts at hospital reorganization, for example, the setting up of hospitals a-

long the guidelines of therapeutic communities (Jones, 1953). These innovations are basic derivatives of the realization of the importance of recognizing and utilizing the patient's interpersonal relationships as a vehicle for recovery.

There have been a few attempts to assess changes such as these by studying changes in morale. An attitude scale is one instrument for this type of measurement. Attitude is most often defined as a readiness to respond. Social definitions generally add an affective component that may be referred to as a positive or negative regard for the psychological object in question. There are many more testimonials to the relevance of attitude determination than there are actual studies. The first studies were carried out by the use of either questionnaires or interviews. They provided data that were difficult to verify and which often only marginally tapped the spectrum of the area being studied.

The first attitude scale pertaining to mental hospital patients was developed by Souelem (1955). A number of other studies have been made by using this scale by itself or in conjunction with other forms of assessment (Klopper et al., 1956; Wolfensberger, 1958; Reznikoff et al., 1959; Brady et al., 1959; Imre and Wolf, 1962). The drawback of this scale is that it is concerned with measuring attitudes toward the mental hospital rather than the ward. The statements are not concerned with interpersonal relationships and were not developed by empirical methods. The statements also failed to differentiate between

hospital subgroups that would be expected to differ in their attitudes toward the ward.

Webb (1959), Klett (1963), and Pisani (1964) developed empirically scales for the assessment of attitudes of Catholic seminarians toward psychiatry, of psychiatric patients toward the ward, and of alcoholic patients toward the treatment center, respectively. With regard to differentiating groups that would be expected to be different on the basis of a priori distinctions all scales were able to distinguish the groups at a significant level. Klett's scale, the one which is part of this study, was not previously found to have the degree of stability desired.

In summary, the literature deals mainly with the contention that the attitudes and interpersonal relationships and reactions of the psychiatric patient are important, but such a review offers no studies, prior to Klett (1963), that are concerned with such an evaluation.

The present study deals with a compilation and standardization of a scale that would be parallel to the one developed by Klett. In addition to being concerned with the equivalency of the scales, it is further interested in the stability of each scale when a random selection of psychiatric patients are tested. Comparisons were also to be made with the results obtained by Klett in an effort to extend the validation of the scales.

In Klett's preliminary study he found his 82 items to differentiate significantly between high and low score criterion groups. The selection of statements on this basis has been

substantiated by Kelley (1939). Edwards (1957) considered any  $t$  value above 1.75 to be significant. Since all statements yielded  $t$  values above this point it was proposed to select 28 of the 54 remaining statements after Klett's selection. These 28 items were selected according to content, favorableness or unfavorableness, and  $t$  value. It was desired to have items as similar as possible in content to the Patients Opinion Poll. An equal number of favorably and unfavorably worded statements were chosen to meet a further criterion of Klett and when a choice was available the highest  $t$  value was selected. Fifty of Klett's two hundred preliminary study protocols were selected and scored for the items in the Patients Opinion Poll and those selected for the Patients Opinion Poll II. The resultant correlation coefficient of .94 was considered as a positive indication that further experimentation with the scales was called for.

The two scales were administered as a single form to 58 randomly selected psychiatric patients by means of a counterbalancing sequence in which half of the subjects found the POP to precede the POP II and the remaining subjects found the POP II preceding the POP on the first administration. For the second administration the procedure was reversed.

A study of the equivalence of the scales was the first experiment. This was done by correlating one scale with the other for each administration. For the first administration the scales had a correlation coefficient of .917 and for the second administration it was .911. Both of these coefficients are

significant beyond the .01 level. In addition, the differences between the means and the F ratios were not significant.

The stability of each scale was determined by a test-retest comparison. The reliability coefficient obtained in this manner was .880 for the Patients Opinion Poll and .901 for the Patients Opinion Poll II. Both coefficients of stability were significant at .01. Here again the differences between means and F ratios were not significant. The stability of the Patients Opinion Poll II was found to be greater than that obtained by Klett.

The first administration of the present scales was also compared with the combined experimental and control group pretest scores obtained by Klett. The present groups had a mean length of stay in the hospital of 53.5 months and a median stay of 19.7 months while the mean length of stay in the hospital was three weeks for the study by Klett. The means of the attitude scores of the groups compared were not significantly different.

On the basis of the results obtained it was concluded that the Patients Opinion Poll II is equivalent to the Patients Opinion Poll. Both scales were found to be statistically reliable and, for at least some groups, scores on the scales are not affected by the length of hospitalization.

These scales can be utilized in measuring the impact of the patient's social setting and for evaluating changes that take place within the individual as a result of continued treatment or changes in treatment. It further provides a methodology for

assessing the influence of new decisions, regardless of the source of the decision.

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## APPENDIX I

### PATIENTS OPINION POLL

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) Dis-  
agree

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

## APPENDIX II

### PATIENTS OPINION POLL II

1. 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
2. Hardly anyone on this ward understands me. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
3. The staff members on this ward know what they're doing. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
4. They treat you like a human being on this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
5. 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
6. Time passes slowly on this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
7. The aides on this ward are understanding of the patients. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
8. It was a real break being assigned to this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
9. 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
10. 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



11. The staff members on this ward take time to talk with patients. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
12. The aides on this ward are interested in their work. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
13. The doctors who serve this ward avoid their patients. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
14. They do their best to keep this ward neat and clean. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
15. 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
16. There's not enough to keep you busy on this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
17. The aides on this ward are too bossy. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
18. The patients on this ward have confidence in the staff. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
19. It's upsetting to be on this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
20. The ward doctor is a nice guy. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
21. On this ward, you get cooperation from the staff members. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
22. The aides on this ward are lazy. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
23. Several members of the ward staff seem unsure of themselves. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
24. I would transfer to another ward, if possible. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree

25. 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
26. 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
27. The staff on this ward shows little personal interest in me. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
28. There isn't enough privacy for the patients on this ward. (1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree

APPROVAL SHEET

The thesis submitted by Paul Robert Kennedy has been read and approved by three members of the Department of Psychology.

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

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

September 7, 1965  
Date

Fred Kobler  
Signature of Adviser