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## The Assessment of Attitudes of Alcoholics Toward an In-Patient Alcoholic Treatment Center

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THE ASSESSMENT OF ATTITUDES OF ALCOHOLICS TOWARD AN IN-  
PATIENT ALCOHOLIC TREATMENT  
CENTER

by  
Vincent D. Pisani

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

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1964

## LIFE

Vincent D. Pisani was born on July 12, 1932, in Chicago, Illinois. In 1949 he was graduated from St. Mel High School in Chicago and in 1953 he received the degree of Bachelor of Science (n.s.) from Loyola University in Chicago.

He began his graduate studies at Loyola University in 1953 and completed the course requirements for the Master of Arts in 1955. His studies were interrupted in November of 1955 by entrance into military service.

From 1955 to 1958 the author served as a clinical psychologist at the United States Naval Hospital, Great Lakes, Illinois. He resumed his graduate studies at Loyola University in 1958 and formally received the degree of Master of Arts in February, 1959.

In 1958 the author took a position as clinical psychologist at Chicago's Alcoholic Treatment Center. He is presently the Chief psychologist at this facility.

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## CHAPTER I

### INTRODUCTION

There has been a growing conviction in recent years that the recovery of the emotionally ill depends not merely upon specific treatment procedures but also on the socio-psychological characteristics of the environment in which they are treated. Several mental hospitals in this country and abroad have supplemented their treatment programs with "milieu therapy" (Main, 1946; Jones, 1953; Stanton and Schwartz, 1954; Caudill, 1958; Cumming and Cumming, 1962).

At the same time, scientists in the various disciplines have accepted the mental hospital as an object of research. From these efforts, there has been increasing evidence forthcoming to illustrate the inter-relatedness of actions in the "hospital community." Several writers have shown that interpersonal relations, administrative actions and the communication of such occurrences affect the progress of the patients (Rapoport, 1957; Caudill, 1958; Parker, 1959).

Concurrent with the above approach has been a re-emphasis on socio-cultural theory and the problem of mental illness (Gillen, 1955; Merton, 1957; Cumming and Cumming, 1962). Harry Stack Sullivan's influence is apparent (1931A; 1931B). Today more than ever before, social scientists are advocating a "socio-therapeutic model" of psychotherapy (Cumming and Cumming, 1962; Kelman, 1958; 1961). The value of such an approach has been



supported in the final report of the Joint Commission on Mental Illness and Health (1961). This report advocates the use of milieu approaches because such approaches are effective while at the same time quite practical since they make fewer demands on an already severe deficit in mental health personnel.

The value of permissiveness and freedom of communication in treating adult acting-out disorders within the context of the therapeutic community has received mention in the literature (Jones, 1953; 1954; Rapoport, 1959; Margolis et al, 1963). This treatment model is based on the assumption that personality disorders are in great part the result of adverse environmental circumstances; which prevent or hinder personality development. By fostering community methods of treatment it is hoped that the adverse environmental effects may be reversed or neutralized, thereby affording an opportunity for emotional growth. The results of such approaches have been generally favorable. However, systematic methods of measuring change in individuals exposed to such treatment have yet to be developed and conclusive results are not as yet forthcoming.

Though documentation is limited, the more promising results obtained in the use of therapeutic milieu approaches has been with the so-called acting-out or personality disorders (Rapoport, 1960; Taylor, 1949; Jones, 1953; 1957; Bettelheim, 1950; Redl, 1952). Despite this, there is a paucity of literature reporting the use of this approach with chronic alcoholics.

Concurrent with the developments cited above there has been an increasing awareness of the importance of the "hospital image" as it refers to the views of the mental hospital. This image, in essence, is nothing more than a

constellation of attitudes which various groups (e.g. patients, family members, hospital personnel, etc.) have about the mental hospital. The importance of these attitudes and consequences for patient improvement has been well documented (Brady et al, 1959; Klett, 1963; Reznikoff, 1963).

In the final analysis, the attitude of the psychiatric patient toward the treatment milieu is one of the most important determinants of the total treatment process. It has been noted that the greater the patient's identification with the treatment milieu, the better his prognosis (Wallerstein, 1957).

Again, despite the importance of the above, there are relatively few studies in the literature which attempt systematically to measure the attitudes of psychiatric patients toward their treatment milieu. There are even fewer which attempt to measure systematically the attitudes of chronic alcoholics toward their treatment milieu.

There are no studies which have attempted systematically to investigate the attitudes of chronic alcoholics toward a "treatment center" which actually approaches the "therapeutic milieu" model as defined by authorities in the field.

This study is concerned with investigating the attitudes of alcoholic patients toward the alcoholic treatment center in which they are hospitalized. More specifically, it deals with the empirical development of a reliable and valid attitude scale for eliciting, measuring and comparing attitudes of alcoholics toward the treatment center in which they are hospitalized. The goal of the latter was that of determining whether a significant change in attitude, as measured by the attitude scale occurs as a result of exposure to

a therapeutic community type of treatment.

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

1. 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. In the foregoing proposition, the corollary that co-variation among responses is assumed to be related to the variation of an underlying variable, is implicit (Green, 1957).

2. If the research instrument is a valid measure of the alcoholic patient's attitudes toward the treatment center, then the mean score of a group of patients who have been exposed to a therapeutic community type of hospital situation for one month should be significantly higher than the mean score of the same group, obtained approximately one week after admission. It is assumed, then, that the experiences which these patients encounter in the treatment situation will be favorable and will facilitate changes in that direction. In the foregoing proposition, the corollary that validity refers to the extent to which the scale measures the variable it was designed to measure, is implicit.

It was thought that this project would be of value for several reasons. It could provide those who are working in alcoholic treatment programs with a reliable and valid instrument for assessing the favorableness of patients' attitudes toward their centers. Because of the facility and speed with which

such a scale can be administered and scored, it should make it possible to study and compare large groups of alcoholic patients. Finally, the scale may provide research scientists and administrators with a means of determining the effectiveness of existing treatment philosophy and methodology.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

There are a number of publications in the literature which relate to the present study in a general way. Some of these studies deal explicitly with milieu therapy and the alcoholic. Others deal with hospital image and the attitudes of alcoholics toward mental hospitals. These studies, however, differ from the present one in terms of purpose, population studied, research design or methodology. Since the primary focus in this dissertation will be on the construction and validation of the proposed psychological instrument, the chapter will also include literature on attitudes. The literature then will be presented and reviewed under three general headings, one dealing with milieu therapy and the alcoholic, another dealing with attitude and attitude change and finally, one dealing with hospital image and the alcoholic.

#### Milieu Therapy and the Alcoholic

In the past few years the term "milieu therapy" has become extremely popular. Few hospitals or treatment facilities will admit to not supplying a therapeutic milieu. Some treatment facilities, for example, state that the treatment given to their patients is milieu therapy when in fact little more than custodial care is given to them. It is necessary then to determine just exactly what may be called a therapeutic milieu.

Community methods of treatment in mental hospitals evolved from the work

done in England during World War II at Northfield Hospital and were applied to civilian situations by Maxwell Jones and others to meet the needs of treating specific kinds of disorders (Bridges, 1943; Jones, 1953). Jones, for example, at the social rehabilitation unit at Belmont Hospital, applied the methods to treating socially maladjusted individuals who could not hold down jobs or live with others in a normal social manner. It must be pointed out, however, that the first recorded attempt at a therapeutic community was a failure. Taylor (1958) describes the efforts of Bion and Rickman. Their attempts to restructure Northfield Hospital aroused such hostility that they were forced to leave. However, the work of Maxwell Jones and others in the field were so encouraging that by 1953 Rioch and Stanton had published a review article regarding the promising new developments in milieu therapy (Rioch and Stanton, 1953).

In spite of the fact that milieu treatment approaches received great impetus in the early 1950's, the beginnings of this approach may be traced to Harry Stack Sullivan (1931). There followed many early experiments in milieu therapy. The Menningers developed what has been called "prescribed environments," in which attitudes of staff and activities of the patient were prescribed in terms of the individual patient's psycho-dynamic diagnosis (Menninger, 1939).

At Chestnut Lodge, Freida Fromm-Reichmann carried forward the therapeutic use of ward personnel (1946). Others following in this tradition, developed a series of researches into the therapeutic power of the total environment. This work culminated in the publication of The Mental Hospital by Alfred Stanton and Morris Schwartz (1954). A few years later, William

Caudill contributed two analyses of the effect of culture upon patient care (1958; 1961). Since Caudill's work there have been many additional publications on milieu therapy. However, the most significant work of recent years has been that of Cumming and Cumming (1962).

Throughout the accumulated development of theory and practice in the area of milieu treatment there has been one notable deficiency. Most authorities in the field have been reluctant to consider the possibility that the milieu might itself bring about specific changes in the behavior of patients. Maxwell Jones (1953) seems to be the exception. Jones developed his theory of the therapeutic community while working with patients diagnosed as having sociopathic disorders. He used the total interpersonal environment as his major therapeutic tool. Rapoport (1960) reported in a follow-up study of patients treated at the social rehabilitation unit of Belmont Hospital in England that 52% of the people who were in treatment for almost seven months or longer improved a year later.

Despite the dramatic results reported in utilizing the therapeutic milieu with acting-out disorders there have been few who have utilized this approach with the chronic alcoholic. Chronic alcoholics are among other things, people who have difficulty accepting and understanding the effect of their actions on others and are in need of social rehabilitation. The democratic aspect of the therapeutic 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). This type of treatment, then, is extremely well suited for the alcoholic patient and should be utilized when ever

possible.

Cumming and Cumming (1962) lend support to the approach of Jones and Rapoport and define milieu therapy as follows:

"Milieu therapy is a scientific manipulation of the environment aimed at producing changes in the personality of the patient." (Cumming and Cumming, 1962, p. 5).

It is this definition which will be utilized in the present study.

Practically all of the authorities previously quoted in the area of therapeutic milieu, point out that the following aspects must be considered and actively manipulated before one may clearly state that he is utilizing a therapeutic milieu approach; the physical setting; authority and control; roles and role relationships; culture; and finally, communication. If any of the aforementioned aspects could be considered the most important, especially in treating acting-out disorders, we would necessarily choose that of authority and control.

Most authorities would agree that patient government is necessary in considering a therapeutic milieu approach. In patient government, the patient can:

- "1. Develop constitutional government with by-laws and regular meetings and elect officers to positions of leadership and responsibility which are recognized by both patients and hospital authorities. These leaders can assist the administration, occupational therapists, nurses, attendants and volunteer workers through consultation in planning and assignment of tasks.
2. Vote on complaints and suggestions and present them to the hospital authorities as the collective desire of the patient body rather than of one individual.



3. Organize and assign their own ward duties.
4. Recommend changes in ward rules.
5. Arrange, organize, and conduct; and assume responsibility for, social activities.
6. Originate, plan and carry through a variety of special activity programs such as painting projects, mural paintings, writing and editing the hospital paper.
7. Form committees and elect leaders to engage in any program of hospital betterment approved by the hospital authorities." (Hyde and Solomon, 1950).

The important functional unit of patient government is the use of ward meetings. In such meetings all problems can be discussed, some can be solved and ambiguities and obstructions that prevent solution can be dealt with. A therapeutic community type of treatment with alcoholics may be effective only if it utilizes the definition given by Cumming and Cumming and combines this with the fullest utilization of patient government.

Despite Foriz's (1959) article on therapeutic community and team work, the literature provides relatively few publications dealing with the intramural treatment of alcoholic patients.

Agrin (1960) describes the Georgian Clinic as a therapeutic community for alcoholics. The author makes use of Wilmer's definition of a therapeutic community (1958). The clinic utilizes the skills and services of medicine, psychiatry, and religion with both in-patients and out-patients. Although the program seems to be quite well organized, there are several deficiencies in the therapeutic community treatment given. From what can be ascertained from the article, very little use is made of patient government. Although there are community meetings once or twice a week they are used to

"discuss house-keeping and administrative measures." Secondly, in spite of the fact that authorities in the field of therapeutic milieu treatment stress the necessity of assessing attitudes, little systematic investigation of attitudes was reported by Agrin. Finally, it is interesting to note that although Agrin describes the Georgian Clinic as a therapeutic community for alcoholics, the director of the Clinic prefers to view the Georgian Clinic as a "chemo-psychotherapeutic" program for the rehabilitation of alcoholics (Fox, 1959).

Jensen (1962) describes a treatment program for alcoholics which was developed at the Saskatchewan Hospital in Weyburn. In spite of the fact that he uses the term "milieu therapy" as part of the description of the facility, there is no indication whatsoever that any use is made of patient government. In fact, it seems that the description of the use of LSD-25 was the most prominent feature in the article.

Two additional articles were noted utilizing ward meetings with alcoholic patients (Brunner-Orne, 1959; Belden, 1962). Both articles, however, pointed out that these ward meetings were utilized merely as "gripe sessions" and not as an extension of patient government as traditionally recognized.

One might summarize the salient features of this section by pointing out that:

1. Milieu therapy, despite any weakness it may have has become extremely popular in the last several years because of its effectiveness and practicality. It appears to be especially useful with acting-out disorders.

2. Despite the usefulness of approaches utilized by Jones (1953), Rapoport (1960), and Cumming and Cumming (1962) there is nothing in the literature to indicate that their suggestions, especially regarding patient government are being applied in treating chronic alcoholics.
3. The value of treating chronic alcoholics with milieu therapy depends largely upon the utilization of democratic patient government which fosters social rehabilitation.

#### Attitude and Attitude Change

In this section, the concept of attitude, methods of measuring attitudes and studies concerning attitude change will be discussed.

There is a great deal of literature in the fields of psychology, sociology and education concerning the concept of attitude. For a long period social psychology was looked upon as the science of attitudes. However, for many years there has been an increasing interest in group dynamics, perception and communication and a decrease in the number of studies concerned with attitudes. More recently, there has been a renewal of interest in this field.

Despite McNemar's (1946) ambitious program to bring order into this area of research, the field of attitudes is one which remains quite heterogeneous. The concept itself has been a matter of concern for over a century. According to Allport (1935), Spencer (1862) is supposed to have been the first psychologist to use the term. Allport (1935) reviewed sixteen definitions of attitude and within these definitions, he found common elements. He states that the term "attitude:"

"Usually signifies the acceptance or rejection of the object or concept of value to which it is related. Ordinarily attitudes are favorable or unfavorable; well-disposed or ill-disposed; they lead one to approach or withdraw, to affirm or negate." (Allport, 1937, p. 280).

Nelson (1939) found twenty-three characteristics of attitudes. His definition is very similar to that of Allport. Nelson maintains that an attitude may be considered as 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).

Webb, (1959) and Klett (1963) both felt that the best operational definition of attitude 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 of attitude will be used. Thurstone defines attitude as,

"The degree of positive or negative affect associated with some psychological object." (Thurstone, 1946, p. 41).

There are many techniques for assessing attitudes. One method is that of asking questions, either directly or indirectly. Another method of assessing attitudes is by observing the behavior of an individual. Both of these methods, however, are quite difficult to use when large groups of persons are involved.

Thurstone's original contribution (Thurstone and Chave, 1929) followed by Likert's paper (1932) gave great impetus to the measurement of attitude. Prior to this time, the attempts of attitude measurements were crude and underdeveloped.

In general, there are two methods used in developing attitude scales once statements have been selected. In one of the methods, a judging group is used. Included in this method is the method of paired comparisons (Thurstone, 1927), the method of equal appearing intervals (Thurstone and Chave, 1929) and the method of successive intervals (Hevner, 1930). All three of these methods are historically linked to Thurstone and are different in the manner in which judgements and scale values are obtained.

The second method utilized in the development of attitude scales is based upon direct response of agreement or disagreement with attitude statements. This method is called the response method and a judging group is not used. The method of summated ratings (Likert, 1932) and scaleogram analysis (Guttman, 1944) are of this type.

The method of summated ratings was chosen for constructing the attitude scale for several reasons. McNemar (1946) has suggested a combination of the summated rating method and an appropriate scaling technique. The end result would be an attitude scale which was better than one based on either method alone. The method of summated ratings would be more simple to apply than methods involving a judging group. Finally, Thurstone and Chave (1929) assumed that the ratings of attitude statements in the method of equal-appearing intervals are independent of the attitudes of judges. This has been contradicted by experimental evidence (Upshaw, 1962), suggesting that methods involving the use of judges might eliminate as "ambiguous" potentially discriminative statements before respondents had a chance to rate them.

Although most theories place great stress on the role of learning, known findings about attitude change are usually contradictory. In general,

attitude change can be produced through individual processes or social psychological processes. The latter is the one which the writer is most concerned with in this particular study. Review of attitude change will be limited to those studies which clearly involve a theory of action of groups on communication.

Most studies involving attitude change use a pre-test, treatment, post-test design. A significant difference between the pre-test and post-tests means is usually taken as evidence that a change has occurred. It has been noted that the experimenter would be better off limiting his evaluation to group changes in attitude rather than individual changes (McNemar, 1946). Underwood (1957) has suggested that pre-testing any group acts as a "sensitizer," resulting in spurious changes. He describes several methods which may be utilized in overcoming this problem. More recently, various evidence has been forthcoming which strongly indicates that pre-test, treatment interaction effects may be dealt with in such a way as to eliminate this influence on attitude change (Lana, 1958; Campbell, 1959).

The importance of the effect of communication on attitude change has been pointed out by many authorities. King and Janis (1956) compared the effectiveness of improvised versus non-improvised role playing in producing attitude changes. Subjects in the experiment improvised their own arguments to defend an opinion. By the use of role-playing the subject comes into intellectual contact with opposite arguments co-existing within himself. However, social approval or a money prize (social reinforcement) also entered into the picture. The authors point out that auto-stimulating communication seems to have an effect in changing attitudes and opinions. In

general, the design and approach of this study is sound. However, the writers failed to break down the results according to such variables as age, sex, and "original opinions." This would have given greater clarity to their findings.

Kipnis (1958) studied the effects of leadership style and leadership power upon the inducement of an attitude change. In this study, a participant leader and a directive leader attempt to induce attitude change in children concerning their reading habits. Both leaders rewarded compliance and punished non-compliance. The writers found that when the participant leader rewards, he induces more private changes than when he threatens. The writers found, additionally, that the leadership-type is related not only to opinion change, but also to the private or public character of the opinions.

Raven (1959) investigated the social influence on opinions and the communication of related content. In this particular study the author examined the effect of group pressure on an opinion which must remain private. Raven found that the existence of an explicit norm seems to induce change, whether opinion is private or public. Publicity and rejection however, tend to be more effective. There are two general criticisms of this study. First of all, it is quite difficult to determine exactly what the author means by "private" opinion. Second, the design failed to insure against falsifying responses. This could have been done by testing anonymously.

Weiss (1961) analyzed change induced through communication. More specifically, he was concerned with the effects of a communication on attitude change and scale judgements. In the experiment, subjects received a

communication strongly opposed to the death penalty. They were then asked to determine the veracity and the cogency of the communicator. It was disclosed that attitudes change, however there is no correlative change in scale judgement. It seemed that subjects who changed most from their original attitude were those who had been in doubt regarding the death penalty. The subjects who did not perceive the communicator as being strongly opposed to capital punishment changed the most. Although the general design of the experiment was quite good, there is one serious criticism. If attitudes change without correlative changes in scale judgements, how are these attitudes distinguishable and what is the relationship between them? The author fails to answer this crucial question.

Several authors, concern themselves with the emotional characteristics of subjects and the effect of such characteristics on attitude change. Cervin, Joiner and Spence (1961) have shown that those subjects with strong emotional reactions change their opinions more frequently when they must state it publically. The results of this experiment seemed to be supported by those obtained by Lawson and Stagner (1957) who found that attitude change during group discussion is associated with anxiety.

Other writers, namely Kerrick and McMillan (1961) and Allyn and Festinger (1961) are interested in the source of the communication and its effect on attitude change. However, these writers present conflicting results and interpretations. Although they are certain that the source of communication has a definite effect on attitude change, they concede that they are not certain as to how this takes place.

An extremely well thought out and instructive experiment, is that of



Radloff (1961). He points out that communication is not only an external source of opinion change but also at times an internal necessity. He investigated the hypothesis that a person who is uncertain of the correctness of his opinions, lacking objective criteria, will try to affiliate with other people in an effort to crystallize his opinions through social comparison. The results suggest that the hypothesis is verified. The author concludes that opinions and attitudes may be said to have a many-sided relationship with communication.

Radloff's experimental investigation seems to be supported and implemented by Kellman's (1958) theoretical formulation of the role of "social influence" in the induction of attitude change. Further experimental evidence for the importance of Radloff's findings may be found in a study by Bailyn and Kelman (1962).

In general the criticisms of the above studies may be summarized as follows:

1. There is uncertainty as to the meaning of the term attitude and change is claimed only when subjects appraise the stimulus as different. Other changes, e.g. in intensity or rigidity, are not dealt with.
2. The relevance of "content" to the receiver's interests is not evaluated or considered.
3. The experimenters fail to deal with amount of structure and direction of "what" is to be changed.

This section dealt with attitudes and attitude change. It was noted that despite some significant efforts to bring things together, the field of

attitudes is not clearly circumscribed. There has been a revival of interest in the study of attitudes after a brief period of leveling off. There is still a great deal of concern over the concept itself. The development of attitude scales was briefly reviewed and it was noted that recent developments of attitude scale construction suggest combining scaling and response techniques. Finally, the importance of the effect of communication on attitude change was noted and the results of several studies were given.

### Hospital Image and the Alcoholic

This section will deal with the concept "hospital image" and with various studies that have been conducted pertaining to this concept. However, since this particular study is primarily concerned with the assessment of attitudes of alcoholics toward the facility in which they are hospitalized, the writer will concentrate on studies pertaining to hospital image and the alcoholic.

A "hospital image" is derived from many sources, internal and external, past and present. Nadboisek defines the concept "hospital image," as a:

Constellation of conscious and unconscious ideas and feelings about the hospital's purpose, ways of functioning and personnel.  
(1957, p. 566)

To a greater or lesser degree, the hospital attempts to satisfy certain basic human needs. The patient in this situation is accorded a subordinate status and the hospital a superordinate one. Patients in this situation continue to have unresolved conflicts concerning authority and affection. As time goes on the hospital also becomes the recipient of associated ambivalent feelings. The patient tends to evaluate the ways the hospital impinges on him according to whether or not it meets or fails to meet his expectations and needs in various areas. The importance of hospital image as it relates to the

patient is undoubtedly, then, one of the most significant factors in the treatment process.

The remainder of this section, will deal with studies which have attempted to assess the attitudes of patients toward various treatment facilities.

Previous to the last decade there had been practically no systematic measurement of attitudes toward psychiatric facilities such as mental hospitals; however, since Souelem (1955) constructed a scale suitable for the quantitative measurement of these attitudes, several studies have utilized this instrument. Klett (1963) points out that interest in the attitudes of psychiatric in-patients toward various aspects of mental hospitals may be traced to Hatch (1948). Hatch interviewed one hundred patients, primarily from convalescent wards, regarding their attitudes toward certain features of the hospital system.

It was discovered that patients found it difficult to communicate through regular channels and that patients felt great distress and discomfort under the hospital system. However, the findings are difficult to evaluate objectively, in that data were obtained through interviews alone. These data are difficult to quantify and seem peculiar to the setting in which they were obtained. On the other hand, this investigation did a great deal to help modify certain policies at Boston Psychopathic Hospital.

The Souelem scale was developed as 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 upon admission and active convalescent wards expressed significantly more favorable attitudes than patients on chronic or

semi-convalescent wards. No significant findings 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. The correlation of length of hospitalization with attitude scores was not significant.

Souelem's scale may be criticized on several grounds. She apparently used the intuitive method in writing her statements, rather than collecting them by more empirical methods. Her "irrelevant" items were eliminated by judges without ever having been administered to test their discriminatory value. She did not test anonymously which may have had a leveling effect on the data.

Other studies have followed Souelem. Klopfer et al., (1956) administered Souelem's scale to six groups of subjects who had varying degrees of familiarity with a mental hospital setting. One of the groups consisted of thirty-three psychiatric in-patients, seventeen on an intensive treatment unit, and sixteen on chronic wards. The other groups consisted of non-patient groups such as clerical employees, ward attendants, etc. It was found that the scale can distinguish certain non-patient groups from one another. With respect to the patient group a comparison did not reveal any significant differences.

This latter finding may have resulted from the fact that the patients were on different kinds of wards but were all in the same hospital. They were probably agreeing with the several statements about the mental hospital and not about the ward itself. In addition, the statements in Souelem's scale are so phrased that they can be answered by patients or non-patients. In this study the results were contradictory to Souelem's study in that the patient

group had generally unfavorable attitudes. The difference here probably stems from the fact that Souelem did not test anonymously.

There have been other studies utilizing Souelem's scale and attempts to measure attitudes toward psychiatric hospitals, namely, Resnikof, et al., (1959) and Brady et al. (1959). However, only two of the studies dealt with an alcoholic sample.

Wolfensberger (1958) investigated the attitudes of alcoholic patients toward mental hospitals. He was interested in learning whether age, education, treatment and present or previous hospitalizations were related to these attitudes. He administered the Souelem scale to ninety-five newly admitted psychiatric patients, thirty-six of whom were alcoholic, at a state hospital. The patients were divided into three groups: a group consisting of patients who had had no previous psychiatric in-patient care; a group of patients with prior confinement in a psychiatric ward of a general hospital; and a group of patients with prior confinement in a bona fide mental hospital. It was found that alcoholics held a significantly more favorable attitude toward mental hospitals than non-alcoholics. Alcoholic escapees were found to have had a significantly more critical attitude toward mental hospitals than alcoholic non-escapees.

The criticism of the Souelem scale also applies here. In addition, Wolfensberger goes far beyond what his results suggest. He suggested on the basis of his results that one could probably predict, with the use of a regression equation, whether or not an alcoholic would escape from the hospital. Correlation is of most benefit in predicting the performance of groups rather than what an individual can be expected to do.

In another study, Imre and Wolf (1962) found no significant differences between the Souelem scale scores of alcoholic escapees and alcoholic non-escapees. This finding was based on scores obtained from fifty-three males hospitalized for alcoholism. Twenty-three of these patients eventually escaped. The authors also studied the attitudes of a group of employees of a state mental hospital, a group of non-alcoholic patients, and a group of student nurses. There was no significant difference between the means of males and females in the employee group. Among the student nurses, fifty per cent of whom completed the Souelem scale under a condition of anonymity, no significant differences were found between the attitudes of male and female patients. The scores of the four major groups was compared and significant differences were found between hospital personnel and non-alcoholic patients and between alcoholic and non-alcoholic patients. The non-alcoholic patients were less favorably disposed toward mental hospitals than either of the other groups.

It is interesting to note that Imre and Wolf found no significant difference between scores of alcoholic escapees and non-escapees. This contrasts with the findings of Wolfensberger. Such conflicting results in studies utilizing the Souelem scale may have arisen from real differences in attitude on the part of the various groups studied. However, the previously mentioned failures of the Souelem scale to distinguish groups which on an a priori basis were expected to have differences in attitude seems to indicate that the contrasting results may have been due to chance errors in measurement.

Klett has recently developed an attitude scale for the assessment of morale in a psychiatric hospital setting (1963). There are some differences

between this scale and that of Souelem. Klett was interested in the attitudes toward the less generic term "ward" which he considered the basic unit in the organizational structure of most mental hospitals. He felt that most of Souelem's seventy-two statements included the words "mental hospital" and had little to do with the inter-patient and patient-staff relationships which are basic elements in the total milieu of a ward. Klett used the more stringent empirical method of Webb and Kobler (1962).

That is, indirect techniques, (especially projective) which are commonly used in clinical practice are specifically modified and adapted for use with a specific population for eliciting attitudes toward a psychological object. The formal qualities of the scale itself combine the Thurstone and Likert methods of scale construction. In effect, the clinical-empirical method combines the flexibility of open-end techniques with the precision of scaling techniques.

There are significant differences between scales which have already been constructed and the one constructed in this study. The writer utilized the generic term "treatment center" rather than "mental hospital" or "ward." The patient sample consisted of chronic alcoholics who were residing in a "treatment center." Yet, use was made of the clinical-empirical approach of Webb and Kobler (1962) in constructing the scale.

The attitude scale which was constructed in the present study, in effect assesses attitudes of alcoholic patients toward an in-patient facility which is not a mental hospital but one which utilizes a "multidisciplinary" approach to the treatment of chronic alcoholism. This approach, combined with milieu techniques constitutes a quite different treatment facility. In addition, the

patient sample was more homogeneous and less disturbed than that which is found in mental hospitals.

In a review of the literature, the writer found no studies which were at all similar to the present one. Although there were a few in-patient alcoholic treatment centers, there are none, to the writer's knowledge, which combine a "multidiscipline" approach (i.e. equal weight given to various approaches toward alcoholism e.g., medicine, psychiatry, Alcoholics Anonymous, religion etc.) and a therapeutic community type of treatment.



## CHAPTER THREE

### DESIGN OF THE RESEARCH INSTRUMENT

It should be noted that the definition of attitude as given by Thurstone was chosen in the present study. Thurstone defined attitude as,

"The degree of negative or positive affect  
associated with some psychological object."  
(Thurstone, 1946)

The psychological object of interest in this study is an alcoholic treatment center. The aim of the attitude scale to be constructed is to assess the attitudes of chronic alcoholic patients toward this treatment center. The scale should be sensitive enough to allow a rank ordering of individuals as to their favorableness toward the treatment center and should be able to detect any attitude changes if they occur.

#### Description of the Treatment Center

Chicago's Alcoholic Treatment Center is a seventy-two bed inpatient facility which provides assistance and treatment for men who have requested help in recovering from chronic alcoholism. Patients are admitted on a voluntary basis and treated without charge. The Treatment Center is supported by the corporate fund of the city of Chicago and operates under the auspices of the Commission for Rehabilitation of Persons. The Center itself is housed in building number three of the Municipal Contagious Disease Hospital and occupies the third, fourth and fifth floors of that building. Administration, Organization and treatment philosophy are in the hands of the executive

director. The executive director is responsible to the Commission and to the Mayor of the City of Chicago. The treatment philosophy incorporates the concept of "Multi-discipline approach" (i.e. equal weight given to various approaches toward alcoholism, e.g. medicine, psychiatry, Alcoholics Anonymous, religion, etc.) and a therapeutic community type of treatment.

1. The physical setting: The majority of patients admitted to Chicago's Alcoholic Treatment Center are randomly assigned to one of two "wards" or floors. The fourth floor "ward" is the older of the two; is physically less attractive and sparsely staffed. The third floor "ward" is more physically attractive; staffed by a greater number of persons and houses the administrative offices in addition to more "private rooms." These rooms are utilized for those patients who appear to be more acutely ill upon admission. Such patients are assigned to these rooms until the acute episode subsides at which time they are assigned to beds on the same floor but in the ward area. Once patients have been assigned to one of the floors or wards they remain on that ward until discharged from the Center. The fifth floor houses the psychiatric staff and admission office.

2. Authority and control: Staff members and patients in the Alcoholic Center share the responsibilities and benefits of the unit by joint participation in discussions and policy making sessions. Unilateral decisions are discouraged. The patients in treatment have a voice in decisions affecting the Center. Administrative problems are routed through the daily ward meetings which are attended by patients and staff. Decisions at the ward meetings are limited by existing administrative policies and regulations.

Prior to any modification, recommendations for changes in policies and/or regulations must be submitted to the executive director.

3. Roles and Role Relationships: All staff members at the Center are encouraged to be themselves as much as possible. Differences in status are minimized in order to lessen autocratic action. However, such actions are not totally eliminated but any action taken may be questioned by patients as well as staff. Any task which can be organized and performed by patients is considered for allocation to them. Only when patients must seek help in planning or facilitating are they allowed to turn to the nurse, social worker, physician, psychologist, etc., up to the Executive Director. The patient is urged to manage his own affairs with staff as assistants in this process. The nurse at the Center is in contact with the patients more than any other staff member. She is therefore considered the keystone of the therapeutic structure. The A.A. coordinator and recreational therapist share this key role with the nurse. In-service training programs are held regularly for such key personnel in an effort to exploit their central roles at the Center.

4. Culture: Staff members at the Center, are members of various professional groups. Although the majority of the staff members follow a modified psychiatric approach to the problem of alcoholism, they tend to stress the traditional approach of their particular profession. The medical staff are primarily concerned with the management of symptoms associated with the acute alcoholic state and immediate post-alcoholic state. The psychiatric staff stress the patient's understanding of himself and attempt to maximize his motivation for change. The A.A. Coordinator is primarily interested in promoting A.A. affiliation both at the Center and after discharge. Chaplains

at the Center focus on the spiritual needs of the patient. The recreational and vocational therapists focus on their particular approach to the problem, as well.

5. Communication: The administration at the Center realizes that during the patient's period of residence, he is working on his problems in a social setting and that group living often has a great impact upon him. Every effort is made to insure that the impact of such social contacts be a positive one. It is understood and accepted by the staff that the more one is regimented, the more difficult it is to communicate freely and express real feelings. The patient, then, is encouraged to participate in "patient government," and is urged to express his feelings and attitudes freely among patients and staff. In order to increase communication, "ward meetings" are held daily and attended by all patients and staff members. The patient group contributes to the rehabilitation of individual men by actively participating in discussing ward problems. In addition, patients are urged to comment and vote on various requests made by their fellow patients at these meetings such as requests for passes and discharges. The entire patient population and as many staff as possible meet on one of the two wards, or floors, daily for approximately one hour to one hour and fifteen minutes. The ward meetings are moderated by a member of the psychiatric staff and are convened on the third or fourth floor wards on an alternating weekly basis. Patients and staff are encouraged to communicate openly their ideas, interests, feelings, questions, etc., privileged communication occurs only when it is therapeutically necessary. Various problems are discussed openly in the presence of all and decisions are made democratically. Informal "rehash sessions" are held regularly after the

ward meetings and include various staff members. Other more formal "rehash sessions" are held at various department staff meetings and at a general staff meeting once weekly.

6. General treatment process: The psychiatric staff makes initial contact with the patient at the time of the intake procedure. At this point an evaluation of the patient's problem and motivation for treatment is ascertained. Subsequently a determination is made, whether or not the facilities of the Center will be suitable for the individual. If it is felt that the facilities will not be of benefit to the applicant, a referral is made to a more appropriate agency. Patients accepted for treatment are sent to the third or fourth floor ward where a physical examination is given by the attending physician. Barring severe medical complications the patient will be admitted if a bed is available. A regimen of treatment is ordered by the attending physician which ordinarily includes ataractic drugs, vitamin therapy and a period of from three to seven days bed rest. A complete laboratory work-up including chest X-ray, blood studies, urinalysis, etc., is ordered immediately after admission. The results of these tests are combined with information already obtained from earlier examinations given prior to admission and additional treatment is ordered accordingly. Physical distress is eliminated as quickly as possible and often serious potential complications are prevented.

As soon as the patient is able, he begins attending various group meetings. He begins by attending four orientation meetings, namely: a medical orientation meeting; a psychiatric orientation meeting; an A. A. orientation meeting; and finally, an administrative orientation meeting. At

the same time, the patient will begin attending daily ward meetings. Patients are also assigned to one of five groups for group psychotherapy sessions which meet twice a week. These sessions last from one to one and one half hours and are moderated by a member of the psychiatric staff (a clinical psychologist). In addition to the group sessions, A. A. meetings are held during the week. Attendance at group meetings is in general voluntary. However, there are two exceptions, namely: orientation meetings and ward meetings.

Although the emphasis at the Center is one of milieu and group therapy, individual counseling sessions are available to all patients, either through staff recommendations and/or through the patient's own initiative. A great deal of informal counseling goes on throughout the period of hospitalization. At the same time, the patient may avail himself of various other treatment procedures at the Center including religious counseling, vocational guidance, and recreational therapy.

The patient may be hospitalized for a period of from two to eight weeks. The average stay at the Center is approximately thirty-five days. Upon completion of two full weeks of hospitalization, the patient may request one of several types of passes to leave the Center. He may also request a discharge from the Center after this period of time. Requests for passes or discharge are brought up at the daily ward meeting. It is at this time where the patient makes known his request to the group. The patient population votes on such requests and the decision is binding.

Because the patient's stay at the Center is relatively brief, goals must be limited and commensurate with the realities of the situation, necessitating an on-going treatment after the patient has been discharged. Patients,

therefore, are encouraged to continue their therapeutic relationships. Toward this end, out-patient group psychotherapy, A. A. meetings and individual consultations are made available to former patients.

7. Patient Population: A statistical analysis of three hundred and thirty-seven consecutive admissions from March 12, 1962 to September 12, 1962 was conducted. This analysis is consistent with other similar analyses previously conducted. The greater proportion of patients at the Center are Caucasians who are married and have one or no children. They are predominately unskilled workers who have only partially completed High School and are between the ages of forty-five and forty-nine years. It is interesting to note that an overwhelming majority had problems with alcohol more than three years before admission. For more specific data see Appendix I.

#### Development and Construction of the Attitude Scale

As in most psychological tests, the first step in attitude scale construction is the selection of items or statements. A statement is anything that can be said about a psychological object. There has been much criticism of the intuitive approach to statement selection (McNemar, 1946). However, little has been done to remedy this situation with the exception of the approach utilized by Webb and Kohler (1962) and Klett (1963). The clinical-empirical approach utilized by these latter investigators was followed in the present investigation. As was pointed out previously, this method combines the flexibility of open-end techniques with the precision of scaling techniques.

#### Collection of Statements for Scale

Five basic approaches were utilized in gathering statements for the scale.

## 1. Sentence Completion test

Webb (1959) and Klett (1963) found that the sentence completion technique is quite valuable in gathering statements for their particular attitude scales. Fifteen incomplete sentences were composed and mimeographed on two sheets of paper (see Appendix II). These incomplete sentences were presented to one hundred and fifteen alcoholic in-patients at Chicago's Alcoholic Treatment Center.

A review of the completed forms revealed one thousand seven hundred and twenty-five separate responses. The responses were then grouped according to similarity of content. Although there was considerable variation in the quality of the records, the responses in general were thought to be quite representative of the patient sample.

## 2. Thematic apperception technique.

The TAT protocols of fifty patients were reviewed and analyzed. Fifteen of the twenty pictures as originally developed by Murray (1943) were given to fifty patients. (Cards included were: 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 13, 14, 16, 18, 20). This resulted in seven hundred and fifty separate stories. In reviewing these stories it was found that the alcoholic patient revealed many of his feelings and attitudes about the Treatment Center in general and about specific persons or groups of persons at the Center.

In addition to the TAT stories, fifty additional patients were asked to "tell a story about their experiences in the Center." These patients were told to include both negative and positive feelings about the Treatment Center and if possible to compare it to other facilities in which they may have been hospitalized in the past. These stories varied from quite lengthy ones to

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extremely brief descriptions of their experiences in the Center. However, as in the case of the TAT stories, many feelings and attitudes were expressed.

### 3. Ward Meetings

The Alcoholic Treatment Center has on file a great number of transcribed minutes of daily ward meetings. These records were reviewed for pertinent comments made by various patients. In addition to reviewing records of previously held ward meetings, such meetings were attended and conducted regularly, the results of which were noted and recorded. Various statements were made about hospital life in general. Information gained from these sources was utilized in writing additional statements.

### 4. Progress notes

The progress notes written by both group and individual therapists were reviewed regularly. Information obtained from a continual review of such progress notes was used in writing appropriate statements. In addition to this procedure, spontaneous remarks made by patients in the Center were recorded during their various activities at the Center.

The data which were accumulated by the above procedures were compiled and classified. Two hundred preliminary statements, covering one or more aspects of the topics found in the data were composed. In many cases the exact words of the patients were used. The statements were then edited following informal criteria, suggested by Wang (1932), Thurstone and Chave (1929), Likert (1932), Bird (1940), and summarized by Edwards (1957). 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 twenty 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 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, 1957, p. 13-14)

An editorial review of the statements, based on the above criteria, reduced the number from two hundred to one hundred and fifty. The statements were then submitted to five members of the psychiatric staff. They were asked to evaluate the statements for relevance and clarity. In addition, they were

asked to divide the statements into two classes, favorable and unfavorable. This resulted in fifty-nine statements being eliminated from the preliminary scale of one hundred and fifty. Nine additional statements were written, in order to balance the number of favorable and unfavorable statements and also to retain some of the data which would otherwise have been rejected. The one hundred statements were resubmitted to the five members of the psychiatric staff and a criterion of one hundred percent agreement on the favorableness or unfavorableness of a statement was established, in order to reduce ambiguity. The result of this second analysis was a preliminary attitude scale consisting of one hundred items. (See Appendix III).

This preliminary scale was entitled "Center Rating Scale," and was administered to a total of one hundred patients. The scale was administered on four separate occasions in a group setting consisting of twenty-five patients in each group. These groups of patients were tested in their respective dining rooms and were requested not to sign their names. They were told that the statements had been made by other patients and were asked to designate whether they felt the same way about the Center. The formal instructions utilized during this part of the research may be seen in Appendix III. The patients were requested to respond to each statement in terms of their own agreement or disagreement with the statement. In obtaining responses from these patients, they were permitted to use any one of five response categories: strongly agree, agree, undecided, disagree, strongly disagree. The responses of the hundred patients on the preliminary form of the scale were weighted for scoring so that the individual giving the most favorable category would receive the highest positive weight. For the favorable statements, the

assumption was made that the "strongly agree" category was most favorable, and for the unfavorable statements the "strongly disagree" was assumed to be most favorable. For the favorable statements the "strongly agree" response received the weight of 4, the "agree" was weighted 3, the "undecided" received a weight of 2, the "disagree" a weight of 1 and the "strongly disagree" the weight of 0. For unfavorable statements the scoring was reversed, with the "strongly agree" response receiving the weight of 0, the "agree" response the weight of 1, the "undecided" a weight of 2, the "disagree" a weight of 3, and the "strongly disagree" response the weight of 4. The total score for each subject was obtained by summing the integral weight corresponding to the rating of each statement. This scoring procedure is referred to as the method of summated ratings (Likert, 1932; 1937). (Bird, 1940), (Edwards, 1957), (Webb, 1959) and (Klett, 1963).

In the method of summated ratings, some type of item analysis is necessary in order to select statements for the final scale, 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 felt that this provides a different value for each statement. The use of this method assumes that the standard deviation of the items is the same. Webb (1959) and Klett (1963) both calculated a difference value for each statement and selected for the final scale an equal number of favorable and unfavorable statements having the greatest different values. The method utilized by the latter authors was followed in the present study.

An item analysis was performed by arranging the summated scores of the one hundred patients in the form of a frequency distribution. Two criterion

groups were then selected, one consisting of the top twenty-five percent of the total distribution and the other of the bottom twenty-five percent. The top group and the bottom group each included twenty-five patients. Finally, t-values were calculated for each of the one hundred statements according to the method proposed by Edwards (1957).

As was previously stated, twenty to thirty statements were desired which would clearly elicit differences of attitude toward the treatment center. The one hundred statements were therefore arranged in rank order on the basis of t-values. Fifty percent of the final statements selected should be favorable ones and the remaining fifty percent must be unfavorable statements. Having an even number of favorable and unfavorable statements would serve to diminish the chance of a response set being generated in the respondents.

In order to determine whether the final group of statements in their respective studies constituted a scale, Webb (1959) and Klett (1963) scaled the statements according to the multiple category method (Rimoldi and Hormaeche, 1955). The multiple category method of scaling provides a standard deviation and scale value for each statement. This method also enables one to obtain normal deviate weights for each of the response categories to verify the integral assignment of weights used in the summated ratings method of scoring. However, the multiple category method assumes that the stimuli are normally distributed. An article by Rimoldi and Devane (1960) points out that if an "R" continuum could be defined so that the top and bottom of the range are left to the subject's discretion, then the judgements, even for extreme stimuli might be normally distributed. If these extreme stimuli are normally distributed then it is not necessary to utilize the multiple category method.

Webb (1959) found an extremely high relationship between integral and normal deviate weights. His findings were supported by those of Klett (1963) who obtained a correlation of .99 between integral and normal deviate weights. Both studies seem to indicate that when utilizing their experimental approach the top and bottom range of the subject's judgements tend to be normally distributed and that use of the multiple category method is unnecessary.

### Reliability Experiment

The reliability of an attitude scale may be estimated by correlating the odd and even statements of the scale and applying the appropriate Spearman-Brown formula. This results in a coefficient of internal consistency and is an indication of the extent to which the statements are inter-dependent. If the statements are found to be highly interdependent they may be considered homogeneous and the attitude scale is unidimensional. If a scale is unidimensional, one would be able to assume with some degree of certainty that similar scores reflect similar attitudes about the psychological object.

Hypothesis 1: If the Center Rating Scale 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 Center Rating Scale to fifty alcoholic in-patients residing at Chicago's Alcoholic Treatment Center. Twenty-five patients were given the scale on the third floor in the dining room area. An additional twenty-five patients from the fourth floor were administered the scale in the fourth floor dining room area. The rating scale was administered anonymously to both groups. Each of the fifty records obtained was divided into 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 method. The obtained scores were arranged in a frequency distribution and correlated by the Pearson Product-moment method (McNemar, 1955, p. 120). The Spearman-Brown formula (Garrett, 1953, p. 341) for estimating reliability from comparable halves of a test was applied to the results.

### Validity Experiment

The term validity as utilized in this particular study 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 alcoholic patients obtained approximately one week after admission to Chicago's Alcoholic Treatment Center, with the scores obtained by these same patients one month after the date of hospitalization.

It has been pointed out consistently in the literature that the milieu in which the patient is treated plays an extremely important part in his rehabilitation. In the above description of the Treatment Center, it was noted that the milieu setting on the third floor ward area seemed to be more efficacious in treating ego-damaged patients. It was thought that perhaps patients on the third floor ward would have a more positive attitude toward the Treatment Center than those housed in the fourth floor ward.

A pilot study was carried out to determine whether or not there was a significant difference in attitude toward the ward between the patients residing on the third floor ward and those residing on the fourth floor ward.

Klett's scale was used and administered anonymously to a total of thirty patients; fifteen patients from each floor. Each of the fifteen patients from

the third floor was matched with another on the fourth floor on the basis of admission date. The fourth floor patients comprised the control group. The experimental, or third floor, group obtained a mean of 89.60 with an S.D. of 9.81, while the control group (fourth floor patients) received a mean of 85.73 with an S.D. of 8.54. A critical ratio of 1.18 was obtained for the Sigmas, indicating that the probability is much greater than .05 and therefore not significant. The difference between means was significant at the .05 level (1-tailed test) with a  $t$  equal to 1.87. (See Appendix III).

Hypothesis 2: It was hypothesized that if the attitude scale was a valid measure of the alcoholic patients' attitudes toward the Center, then the mean score of a group of patients who have been exposed to a therapeutic community type of hospital situation for one month would be significantly higher (more positive) than the mean score of the same group obtained approximately one week after admission.

It was assumed that the experiences which these patients encountered in the treatment situation would be favorable and facilitate changes in attitudes in that direction.

Method 2: This hypothesis was tested by administering the attitude scale to every patient admitted during a one month period to Chicago's Alcoholic Treatment Center. The patients included in the study were thirty patients admitted to the third floor ward and thirty patients admitted to the fourth floor ward. The scale was administered to the patients on the floors to which they were assigned at the date of admission. The scale was administered approximately one week after admission, to allow for the acute alcoholic episode to subside. The scale was administered anonymously to groups of from



five to ten patients in the dining room on the floors to which the patients had been assigned. The scale was readministered to the same groups approximately one month after the patient's admission date. It was anticipated that the effect of exposure to the treatment condition would be experienced within one month time. Therefore, a period of approximately three weeks was allowed to elapse between administrations of the scale.

Hypothesis 3: It is hypothesized that the third floor ward patients would have a more favorable attitude toward the Center than the fourth floor ward patients. It is assumed that the experiences which those patients encounter on the third floor ward will allow for a development of greater favorable attitude toward the Center than those patients on the fourth floor ward.

Method 3: For this phase of the experiment the pre-and-post-test means for the two groups (third floor ward and fourth floor ward) were compared. Since both groups were in treatment, it was expected that the scores of patients on both wards would change in a favorable direction, however, the writer predicted a significant difference in attitude toward the psychological object for the two groups, the third floor group showing the more favorable attitude.

## CHAPTER IV

### ANALYSIS OF RESULTS

The results will be presented in the following order: C.A.T.C. Rating Scale; Reliability of the C.A.T.C. Rating Scale; Validity of the C.A.T.C. Rating Scale.

#### C.A.T.C. Rating Scale

The preliminary form of the Rating Scale, consisting of one hundred statements was administered to one hundred patients. Fifty percent of the patients were from the third floor ward and the remaining fifty percent were from the fourth floor ward. An item analysis was performed by arranging the summated scores of these one hundred patients in the form of a frequency distribution. Two criterion groups were selected, one consisting of the top twenty-five percent of the total distribution and the other of the bottom twenty-five percent. The top group, or high scorers, and the bottom group, or the low scorers, each included twenty-five patients. Finally, t-values were calculated for each of the one hundred statements according to the method proposed by Edwards (1957).

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

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

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

$$\text{and } \sum (X_l - \bar{X}_l)^2 = X_l^2 - \frac{(X_l)^2}{n}$$

The obtained t-values ranged from .187 to 9.719 for the one hundred 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 differ significantly, provided there are 25 or more subjects in each of the groups. Accepting this criterion, all but six of the one hundred statements in the preliminary form of the attitude scale can be said to be capable of eliciting clear differences of attitude. (See Appendix IV)

What was desired was a set of twenty to thirty statements which would clearly elicit differences of attitude toward the Center. Therefore, the statements were arranged in rank order on the basis of t-values. Thirty statements were selected from among the one hundred statements with the largest t-values. The first thirty statements having the highest t-values were not selected because such a selection would have resulted in having a disproportionate number of favorable statements. It is best 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 the respondents. Therefore, fifteen of the favorable statements with the highest t-values and fifteen of the unfavorable statements with the highest t-values were chosen. There was one exception. Statement number forty-two was substituted for statement number six because it covered an important aspect of life at the

Center. All of the thirty statements which were chosen had t-values greater than 4.75. The final scale had a total of thirty statements which were arranged randomly as to favorableness or unfavorableness on two separate sheets of paper. (See Appendix V)

### Reliability of the C.A.T.C. Rating Scale

#### I. Internal Consistency

Hypothesis 1: A coefficient of internal consistency was obtained for the final C.A.T.C. Rating Scale by correlating the scores of fifty alcoholic in-patients on split-halves of the Rating Scale. One set of scores was based on the responses of these patients to the even-numbered statements of the scale and the other on their responses to the odd numbered statements. A coefficient of .85 ( $p < .001$ ) 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 1. This correlation was raised to .92 ( $p < .001$ ), when applying the Spearman-Brown formula to it. This coefficient compares very favorably with others reported in the literature for summated-rating scales (Edwards, 1957). The coefficient of internal consistency resulting from this study is such that the statements appear to be highly interdependent and homogeneous. It can be assumed that the scale is unidimensional and reliable.

### Validity of the C.A.T.C. Rating Scale

Hypothesis 2: The validity of the scale was estimated by comparing the scores of a group of alcoholic patients exposed to a therapeutic community type of treatment for approximately one month with the scores of the same group obtained within one week after admission.

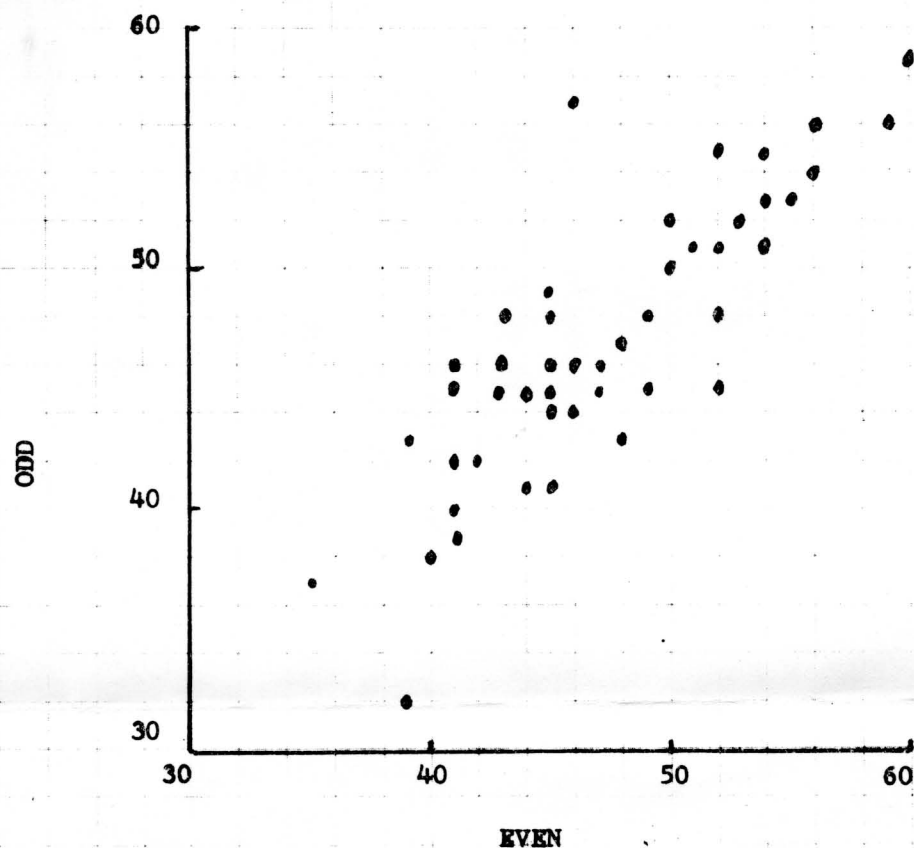


Fig. 1. Coefficient of Internal Consistency  
for C.A.T.C. Rating Scale.  $r = .92$

Hypothesis 3: The validity of the scale was further estimated by comparing the scores of two groups of alcoholic patients who were presumed to have different attitudes toward the Center because of differences in the organization of their floors or wards.

The pre-and-post-test means were calculated for each group. The statistical significance of the difference between the pre-and-post-treatment means was determined by the following formula:

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

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.

$D$  = 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 (fourth floor patients) was subtracted from the total change in the experimental group (third floor patients), 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, Klett, 1963, p. 59). The following formula was used:

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

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

$$\sum x_1^2 = \frac{1}{N_1} \left[ N_1 \sum x^2 - \left( \sum x \right)^2 \right]$$

the sum of the squares of scores made by experimental subjects.

$$\sum x_2^2 = \frac{1}{N} \left[ N_1 \sum x^2 - \left( \sum x \right)^2 \right]$$

the sum of the squares of scores made by control subjects.

Both groups were pre-and-post-tested, the interval between testings was approximately one month. The results, presented in Table 1, indicate that the experimental group (third floor group) changed on the average of 6.76 points in the direction of favorableness, while the control group changed on the average of 3.60 points in the same direction. Both the gross and net changes were significant. In general, then, the results of the validity experiment are encouraging. Both third and fourth floor patients experienced a favorable change in attitude toward the Center. It seems also that the organization and structure of the third floor ward is much more conducive to positive attitude changes than the fourth floor ward.

Table 1

Change in Mean Score on the C.A.T.C. Rating Scale as a Result  
of Four Weeks Exposure to the Treatment Milieu

Group	Number	Mean Score		Difference	
		Pretest	Retest	Gross	Net
Third Floor	25	92.04	98.80	6.76*	
Fourth Floor	25	91.04	94.64	3.60*	
Total	50				3.16**

\*Significant at the .001 level of confidence

\*\*Significant at the .05 level of confidence

### Discussion:

The results presented in Table 1 indicate that the C.A.T.C. Rating Scale is a reliable and valid tool for assessing the attitudes of alcoholic in-patients toward their treatment center. There remains a need for further evidence regarding the dependability of scores earned on the scale. This may be accomplished by developing parallel forms of the scale. Since 94 of the 100 statements on the preliminary form of the scale were found to differentiate significantly, it is possible to construct two additional scales with 60 of the 64 remaining statements. Coefficients of equivalence could be determined by administering each of the three forms to a sample of patients on different occasions and correlating the scores obtained. These coefficients would



provide estimates of the extent to which these scales are specific to the particular items used. It would then be possible to obtain Coefficients of Stability as well as Coefficients of Internal Consistency. Parallel forms would also minimize to some extent the patients' resistance to completing the same form on two or three separate occasions.

Further evidence regarding the validity of the scale is necessary. There were only ten patients in each group and it was hoped that there could be approximately thirty in each group. At the present time, the scale is being administered to incoming patients on a random basis. This will continue until sufficient data are gathered to further validate the scale.

Other methods of further validating the scale are under consideration. The method suggested by Klett (1963) would be quite feasible in the treatment setting described in this study. A behavior check-list could be developed which would enable an investigator to record his observations of a patient's behavior relative to feelings about the Center. C.A.T.C. Rating Scale scores could then be correlated with scores based on the behavior check-list.

In addition, correlations between the Soulem Scale or Klett's Patient Opinion Poll and the C.A.T.C. Rating Scale might be obtained in order to determine the degree of relationship between these measures. Such an investigation might result in information about the variable of attitude itself.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

In recent years there has been an emphasis on the socio-psychological characteristics of the environment in which the emotionally ill are treated. Commensurate with this has been a re-emphasis on socio-cultural theory and the problem of mental illness. These developments have been instrumental in bringing about dramatic changes in mental hospital settings and an increasing acceptance of the "socio therapeutic model" of psychotherapy. The value of using so-called "milieu approaches" is advocated because they are not only effective but at the same time quite practical.

Milieu therapy seems especially effective in treating personality disorders. The value of permissiveness and freedom of communication within the context of the "therapeutic community" serves to facilitate self-awareness, self-control and social recovery. There is widespread acceptance that personality disorders are in great part the result of adverse environmental circumstances. By fostering community methods of treatment, such adverse environmental effects may be reversed or at least neutralized, thereby affording an opportunity for emotional growth. It was noted that despite these beliefs, there is a paucity of literature reporting the use of such an approach with alcoholic patients.

The few studies which reported utilizing milieu approaches with alcoholic patients were reviewed and evaluated critically. Despite the fact that most

authorities agree that patient government is necessary in utilizing the concept of a therapeutic milieu, none of the reported studies makes use of patient government as traditionally defined. Secondly, in spite of repeated appeals from authorities in the field of milieu treatment, requesting that attitude and attitude change be systematically investigated, none of the studies reports such an investigation.

The concept of attitude, methods of measuring attitudes and studies concerning attitude change were discussed. Despite McNemar's (1946) ambitious program, the field of attitudes is one which remains quite heterogeneous. There has been a revival of interest in the study of attitudes after a brief leveling off period. There is as yet a great deal of concern and uncertainty over the concept of attitude itself. The development of attitude scales was briefly reviewed and it was noted that recent developments of attitude scale construction suggest combining scaling and response techniques. Finally, the importance of the effect of communication on attitude change was noted and the results of several studies were given. There were several criticisms of the studies reviewed. First of all, there is uncertainty as to the meaning of the term attitude and change is claimed only when subjects appraise the stimulus as being different. Other changes, e.g. in intensity or rigidity, are not dealt with. Secondly, relevance of "content to the receiver's interests" is not evaluated or considered. Finally, the experimenters fail to deal with amount of structure and direction of "what" is to be changed.

An attempt was made to deal with the concept "hospital image." Various studies which have been conducted pertaining to the concept were reviewed. Special attention was given to studies dealing with "hospital image" and the

alcoholic. It was noted that hospital image as it relates to the patient is one of the most significant factors in the treatment process. Despite this, there were only two studies found which attempted to systematically measure the attitudes of alcoholic patients toward mental hospitals. Both of these studies, and others which dealt with a more general psychiatric population used Soueem's scale and methodology (1955). Credit was given to Soueem for suggesting that an attitude scale might be more objective than interview methods or participant observation. However, several criticisms were made of her method. None of Soueem's statements deal with any kind of interpersonal relationships. Secondly, Soueem used an intuitive method in writing and selecting statements for her scale. Finally, Soueem's scale fails to distinguish groups which on an a priori basis were expected to reveal differences in attitude and the paucity of cross-validated findings raised many doubts about the usefulness of the Soueem scale.

Klett's recently developed attitude scale and methodology were reviewed. Klett used the more stringent empirical method of Webb and Kobler (1962). This approach seems much more suitable to systematically investigating attitudes than any yet developed. Klett's application of this method to a psychiatric population was extremely well executed. His methodology was followed in the present study. However, there are significant differences between scales already developed and the one constructed in this study. The generic term "treatment center" rather than "mental hospital" or "ward" was used. The patient sample consisted of alcoholics who were non-psychotic and residing in a voluntary "treatment center." Yet, use was made of the clinical-empirical approach of Webb and Kobler (1962) in constructing the

scale.

In summary, a review of the literature dealing with milieu therapy and the alcoholic, and hospital image and the alcoholic indicated a need for a more systematic means of investigating the attitudes of alcoholic patients. The literature dealing with attitudes and their measurement revealed several methods of carrying out this investigation. Previous studies of patients' attitudes focused on different samples of patients, 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 alcoholic patients toward their immediate treatment settings, e.g. alcoholic treatment centers, was indicated.

A preliminary form of the attitude scale was constructed with statements obtained from five major sources. Fifteen incomplete sentences were composed, mimeographed and administered to one hundred and fifteen alcoholic patients. Fifteen of the twenty pictures originally developed by Murray (1943) were given to fifty patients. Fifty patients were asked to "tell a story" about their experiences in the Center. Transcribed minutes of daily ward meetings were utilized. Finally, progress notes written by both group and individual therapists were reviewed regularly. The data accumulated by these procedures were compiled and classified. Two hundred preliminary statements, covering one or more aspects of the topics found in the data were composed. These statements were edited and reduced to one hundred and then submitted to five members of the psychiatric staff. A preliminary attitude scale consisting of 100 statements resulted from the analysis.

The responses of one hundred patients on the preliminary form of the

attitude scale was scored according to the method of summated ratings. Scores resulting from the administration were arranged in a frequency distribution. Criterion groups consisting of the upper twenty-five percent and lower twenty-five percent were selected. The protocols of these high and low scorers were used in calculating t-values for the one hundred statements. All but six of the one hundred statements were found to be capable of eliciting clear differences of attitude. Thirty of the ninety-four statements were selected for the final form of the scale. Fifteen of the positive statements with the highest t-values and fifteen of the negative statements with the highest t-values were chosen.

The reliability of the scale was estimated by obtaining a coefficient of internal consistency. A split-half reliability coefficient of .92 was obtained by correlating the scores of fifty alcoholic patients on the even numbered statements with their scores on the odd numbered statements and by applying the appropriate Spearman-Brown correction formula. This coefficient was significant beyond the .001 level.

Evidence of the scale's validity was estimated by comparing the scores of alcoholic patients obtained approximately one week after admission to an alcoholic treatment center, with the scores obtained by these same patients one month after the date of hospitalization. It was also hypothesized that the third floor ward patients would have a more favorable attitude toward the Center than the fourth floor ward patients. It was assumed that the experiences which those patients encounter on the third floor ward allows for a development of greater favorable attitude toward the Center than the attitudes developed by patients on the fourth floor ward. The third floor

patients were designated as the experimental group and the fourth floor patients were designated as the control group. Both groups were pre-and-post-tested. Results indicated that both groups experienced a significant change in attitude ( $p. < .001$ ). The third floor patients scored on the average of 6.76 points higher than the pre-test scores while the fourth floor patients scored on the average 3.60 points higher than the pre-test scores. Also, the net change based on the difference between the post-test means of the two groups was significant ( $p. < .05$ ). This latter finding indicates that the third floor group shows the more favorable attitude.

It was concluded that the scale is a reliable and valid method for assessing the attitudes of alcoholic patients toward their treatment centers. The use of this method will make it possible to study and compare large groups of alcoholic patients. In addition, the scale makes it possible to systematically investigate the effects of a therapeutic community on alcoholic patients. Additional uses and possible shortcomings of the scale were proposed and discussed.

## BIBLIOGRAPHY

- Agrin, A. The Georgian Clinic; a therapeutic community for alcoholics. Quart. J. Stud. Alc., 1960, 21, 113-124.
- Allport, G. W. The Nature of Personality: Selected Papers. Cambridge, Mass.: Addison Wesley, 1947, 1-47. (Reprinted from C. Murchison, A Handbook of Social Psychology. Worcester, Mass: Clark Univ. Press, 1935, ch. 17)
- Allyn, J. and Festinger, L. The Effectiveness of Unanticipated Persuasive Communication. J. Aln. Soc. Psychol., 1961, 62, 35-40.
- Alvarez, W. C. Minds that Came Back. Philadelphia: Lippincott, 1961.
- American Psychological Association. Technical recommendations for psychological tests and diagnostic techniques. Washington: American Psychological Association, 1953.
- Bailyn, L. and Kelman, H. C. The Effects of a Year's Experience in America on the Self-Image of Scandinavians. J. Social Issues, 1962, 18, 30-40.
- Belden, E. A Program for the Treatment of Alcoholics in a Mental Hospital. Quart J. Stud. Alc., 1962, 23, 650-54.
- Bettleheim, B. Love is Not Enough. Glencoe; Free Press, 1950.
- Bierer, J. The Day Hospital: Experiment in social psychiatry and syntho-analytic psychotherapy. London: H. K. Lewis, 1951.
- Bion, W. R. Experiences in groups. Human Relations, 1950, 3-15.
- Bird, C. Social Psychology. New York: Appleton Century-Crofts, 1940.
- Brady, J. P., Zeller, W. W., and Reznikoff, M. Attitudinal factors influencing outcome of treatment of hospitalized psychiatric patients. J. Clin. Exp. Psychopath., 1959, 20, 326-334.
- Brunner-Orme, M. Ward group sessions with hospitalized alcoholics as motivation for psychotherapy. Int. J. Group. Psychotherapy, 1959, 9, 219-225.
- Bridges, H. The Northfield experiment. Bull. Menninger Clin., 1943, 10, 71-76.



- Bull, Nina. A sequence concept of attitude. J. Psychol., 1946, 22, 165-173.
- Campbell, D. T., The indirect assessment of social attitudes. Psychol. Bull. 1950, 47, 15-38.
- Campbell, D. T., Factors relative to the validity of experiments in social settings. Psychol. Bull., 1957, 54, 297-312.
- Campbell, D. T. Quasi-experimental designs for use in natural social settings. 1959. (mimeo.)
- Caudill, W., The psychiatric hospital as a small society. Cambridge: Harvard University Press, 1958.
- Caudill, W., Around the clock patient care in Japanese psychiatric hospitals. Amer. Sociological Rev., 1961, 26, 204f.
- Cervin, V. B., Jouner, R. C., and Spence, J. M. Relationship of persuasive interaction to change of opinion in dyadic groups when the original opinions of participants are exposed privately and publicly. J. Abn. Soc. Psychol., 1961, 62, 331-32.
- Citterio, C., and Della Rovere, M. Contributo allo studio dei rapporti tra alcoolismo cronico e criminalita. Relazione del quadro clinico con l'evento criminoso. Quat. J. Stud. Alc. 1963, 24, 571f.
- Citterio, C., and Medaglini, E., Risultati preliminardi dell' applicazione del monster test and ad alcoolisti. Lav. Neuropsichiat., 1960, 26, 497-512.
- Cole, Nyla, Branch, C. H. Hardin, & Shaw, Orla M., Mental illness: a survey assessment of community rates, attitudes, and adjustments. A.M.A. Arch. Neurol. Psychiat., 1957, 67.
- Cumming, J. & Cumming, E., Ego and Milieu. New York: Atherton Press, 1962.
- De Rosis, Helen A., & Campbell, R. J., A trial of patient government. Psychiat. Quart. Suppl. 1958, 32, 233-246.
- Edwards, A. L., Techniques of Attitude Scale Construction. New York: Appleton-Century-Crofts, 1957.
- Edwards, A. L., & Kilpatrick, F. P., A technique for the construction of attitude scales. J. Appl. Psychol., 1948, 32, 374-384.
- Edwards, A. L., & Kilpatrick, F. P., Scale analysis and the measurement of social attitudes. Psychometrika, 1949, 13, 99-114.
- Fau, R. & Chateau, R. A proper duprobleme de l'alcoolisme: le monde des buveurs. J. Med. Lyon. 1960, 41, 1209-1219.

- Ferguson, L. W., The requirements of an adequate attitude scale. Psychol. Bull., 1939, 665-673.
- Ferguson, L. W., A study of the Likert technique of attitude scale construction. J. Soc. Psychol., 1941, 13, 51-57.
- Fernandez, Alonza. La Psicoterapia de grupo en alcoholicos. Rev. Psicol. Gen. Apl. 1961, 16, 515-523.
- Forizs, L. Therapeutic community as teamwork. Quart. J. Stud. Alc., 1959, 20, 291-595.
- Fox, F. & Smith, M. A. Evaluation of a chemopscho-therapeutic program for the rehabilitation of alcoholics. Quart. J. Stud. Alc., 1959, 20, 767-780.
- Garrett, H. E. Statistics in psychology and education. New York: Longmans, Green, 1953.
- Giedt, F. H. Patterns of attitude similarity among psychiatric hospital staff. Int. J. Soc. Psychiat., 1959, 4, 280-290.
- Fromm-Reichmann, F. Remarks on the philosophy of mental disorder. Psychiatry, 1946, 9, 293f.
- Gillen, J. Socio-cultural therapy--some cross cultural aspects. Veterans' Administration Program Guide G-3, m-2, Part X, I.M.&S., Psychiatry and Neurology Service, 1955, June, 17-23.
- Gordon, T. & Cartwright, D. S. The effect of psychotherapy upon certain attitudes toward others. In C. R. Rogers and R. F. Dymond (eds.) Psychotherapy and personality change. Chicago: University of Chicago Press, 1967-195.
- Green, B. F. Attitude measurement. In G. Lindzey (Ed.), Handbook of Social Psychology. Cambridge: Addison-Wesley, 1954.
- Greenblatt, M., York., R. M. & Brown, Esther L. From Custodial to Therapeutic Patient care in Mental Hospitals. New York: Russell Sage, 1955.
- Guilford, J. P. Psychometric Methods. New York: McGraw-Hill, 1936.
- Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill, 1956.
- Guttman, L. A basis for scaling qualitative data. Amer. Sociol. Rev., 1944, 9, 139-150.

- Guttman, L. The problem of attitude and opinion measurement in S.A. Stouffer et al., Measurement and Prediction. Princeton, N.J.: Princeton University Press, 1950, 60-90.
- Hatch, Mary E. An inquiry into the attitudes of patients toward their hospital environment. Unpublished M.S. thesis, Simmons College, 1949.
- Hevner, K. An empirical study of three psychophysical methods. J. Gen. Psychol., 1930, 4, 191-212.
- Hillson, J. S., Wolfensberger, W. P., Wylie, A. A. Effects of a complex educational experience upon attitudes toward mental hospitals. J. Educ. Res., (in press)
- Howard, A. R. Sentence completion as an attitudinal measure. J. Educ. Res., 1956, 50, 297-305.
- Imre, P. D. Attitudes of volunteers toward mental hospitals compared to patients and personnel. J. Clin. Psychol., 1962, 18, 516.
- Imre, P. D. & Wolf, S. Attitudes of patients and personnel toward mental hospitals. J. Clin. Psychol., 1962, 18, 232-243.
- Jensen, S. E. A treatment program for alcoholics in a mental hospital. Quart. J. Stud. Alc., 1962, 23, 315-320.
- Joint Commission on Mental Illness and Health. Action for mental health. New York: Basic Books, 1961.
- Jones, M. The treatment of character disorder in a therapeutic community. Bull. World Federation of Mental Health, 1954, 6, 66-71.
- Jones, M. The treatment of personality disorders in a therapeutic community. Psychiat., 1957, 20, 211-220.
- Jones, M., The Therapeutic Community: A New Treatment in Psychiatry. New York: Basic Books, 1953.
- Jost, F. Modernos tratamientos en psiquiatria; cursos de deshabitacion; el problem Maniaco, el alcoholismo cronico y su tratamiento. Folia Clin. Int. Barcelona, 1961, 495-505.
- Kelman, H. C. Compliance, Identification and Internalization: Three Processes of Attitude Change. J. Conflict Resolution, 1958, 2, 51-60.
- Kelman, H. C. Processes of Opinion Change. Public Opinion Quart. 1961, 25, 57-78.

- Kerrick, J. S. & McMillan, D. A. The effects of instructional set on the measurement of attitude change through communications. J. Social Psychol., 1961, 53, 113-120.
- Kipnis, D. The effects of leadership style and leadership power upon the inducement of an attitude change. J. Abn. Soc. Psychol., 1958, 57, 173-180.
- King, B. T., & Janis, I. L. Comparison of the effectiveness of improvised versus non-improvised role-playing in producing opinion changes. Human Relations, 1956, 9, 177-186.
- Klett, W. G. An attitude scale for the assessment of morale in a psychiatric hospital. Unpublished doctoral dissertation. Loyola University, 1963.
- Klopfer, W. G., Wylie, A. A., & Hillson, J. S. Attitudes toward mental hospitals. J. Clin. Psychol., 1956, 12, 361-365.
- Lana, R. E. A further investigation of the pretest-treatment interaction effect. J. Appl. Psychol., 1959, 43, 421-422.
- Lawson, E. D., & Stagner, R. Group pressure, attitude change and autonomic involvement. J. Social Psychol., 1957, 45, 299-312.
- Likert, R. A technique for the measurement of attitudes. Arch. Psychol., 1932, No. 140.
- Likert, R. S., & Murphy, G. A simple and reliable method of scoring the Thurstone attitude scales. J. Soc. Psychol., 1934, 5, 228-238.
- Liberman, D. Psicoanalisis del alcoholismo y de la adiccion a los drogas. Acta Neuropsiquiat. Argent. 1959, 5, 161, 171.
- Main, L. F. The hospital as a therapeutic institution. Bull. Menninger Clin., 1946, 10, 66-70.
- Margolis, P. M., Daniels, R. S., Carson, R. C., & Meyer, G. G. The Patient-Staff Meeting - A Technique for Encouraging Communication in the Psychiatric Hospital. Psychiat., 1963, 26, 19-26.
- Masciocchi, A., and Savoldi, F. Il test di Rosenzweig negli Alcoolisti. Riv. Sper. Freniat., 1960, 84, 83-118.
- McGahee, C. L., The ward community: a new route toward long-standing goals. Ment. Hosp., 1961, 12, 37-39.
- McNemar, Q. Opinion-attitude methodology. Psychol. Bull., 1946, 43, 289, 374.

- Menninger, W. C. Psychoanalytic principles in psychiatric hospital therapy. Southern Medical Journal, 1939, 32, 348f.
- Merton, R. K. Social theory and social structure. Glencoe, Ill., Free Press, 1957.
- Mondonesi, C. La personalita degli alcoolisti; aspetti clinici e considerazioni terapeutiche., Neuropsichiatria, Geona. 1961.
- Naboisek, H. Hospital image and post-hospital experience. In M. Greenblatt (Ed.) The Patient and the Mental Hospital. Glencoe, Ill., Free Press, 1957, 565-566.
- Nelson, E. Attitudes: I. Their nature and development. J. Gen. Psychol., 1939, 21, 367-399.
- Parker, S. Disorganization on a psychiatric ward; the natural history of a crisis. Psychiat., 1959, 22, 65-79.
- Radloff, R. Opinion evaluation and affiliation. J. Abn. Soc. Psychol., 1961, 578-585.
- Redl, R., & Wineman, D. Controls From Within: Techniques for the Treatment of the Aggressive Child. Glencoe, Ill., Free Press, 1952.
- Rapoport, R. N., & Rapoport, Rhona. "Democratization" and authority in a therapeutic community. Behav. Sci., 1957, 2, 128-133.
- Rapoport, R. N. Community as doctor: new perspectives on a therapeutic community. Springfield, Ill., Thomas, 1960.
- Raven, B. H. Social influence on opinions and the communications of related content. J. Abn. Soc. Psychol., 1959, 58, 119-128.
- Remmers, H. H. An Introduction to Opinion and Attitude Measurement. New York, Harper, 1954.
- Regnikoff, M. Attitudes of psychiatric nurses and aides toward psychiatric treatment and hospitals. Mental Hygiene, 1963, 47, 366-374.
- Regnikoff, J., Brady, J. P., & Zeller, W. W. The psychiatric attitudes battery, a procedure for assessing attitudes toward psychiatric treatment and hospitals. J. Clin. Psychol., 1959, 15, 260-266.
- Rimoldi, H. J. A., and Hormaeche, M. The law of comparative judgement in successive intervals and graphic rating scale methods. Psychometrika, 1955, 20, 307-318.

- Rimoldi, H. J. A., & Devane, J. R. Some considerations on scaling procedures. Perceptual Motor Skills, 1960, 11, 207-213.
- Rioch, D. M., & Stanton, A. H. Milieu Therapy, Psychiatric Treatment, Baltimore: Williams and Williams, Vol. XXI, 1953.
- Sampaio, A. Do emprego do "clordiazepoxido" no delirium tremens e na alcuionose alcoolica. Hospital Rio De J., 1962, 62, 105-125.
- Seashore, R. H., & Hevner, Kate. A time-saving device for the construction of attitude scales. J. Soc. Psychol., 1933, 4, 366-372.
- Souelen, Omneya. Mental patients' attitudes toward mental hospitals. J. Clin. Psychol., 1955, 11, 181-185.
- Stanton, A. H., & Schwartz, M. S. The management of a type of institutional participation in mental illness. Psychiat., 1949, 12, 13-26.
- Stephan, F. F. Advances in survey methods and measurement techniques. Publ. Opin. Quart., 1957, 21, 79-90.
- Sullivan, H. S. Modified Psychoanalytic treatment of Schizophrenia. Amer. J. Psychiat., 1931, 519-540.
- Sullivan, H. S. Socio-psychiatric research; its implications for the schizophrenia problem and for mental hygiene. Amer. J. Psychiat., 10, 1931, 977-991.
- Sullivan, H. S. The interpersonal theory of psychiatry. New York: Norton, 1953.
- Taylor, F. D. Northfields Hospital. Brit. J. Med. Psychol., 1958.
- Taylor, S. The psychopath in our midst: a Danish solution, Lancet, 1949, 256, 32-36.
- Thurstone, L. L. A law of comparative judgement. Psychol. Rev., 1927, 34, 273-286.
- Thurstone, L. L. The method of paired comparisons for social values. J. Abnorm. Soc. Psychol., 1927, 21, 384-400.
- Thurstone, L. L., & Chave, E. J. The Measurement of Attitude. Chicago: University of Chicago Press, 1929.
- Thurstone, L. L. Comment. Amer. J. Sociol., 1946, 52, 39-50.

- Upshaw, H. S., Our attitude as an anchor in equal-appearing intervals. J. Abn. Soc. Psychol., 1962, 64, 85-96.
- Underwood, B. Psychological Research. New York: Appleton-Century-Crofts, 1957.
- Wallerstein, R. S. Hospital Treatment of Alcoholics. New York: Basic Books, 1957.
- Wang, K. A. Suggested criteria for writing attitude statements. J. Soc. Psychol., 1932, 3, 367-373.
- Webb, N. J. Measurement of attitude and information changes in mental health concepts among seminarians. Unpublished doctoral dissertation, Loyola University, 1959.
- Webb, N. J., and Kobler, F. J. Clinical-empirical techniques for assessing the attitudes of religious toward psychiatry. J. Soc. Psychol., 1962.
- Weiss, W. The effects of a communication in attitude change and scale judgements. J. Abn. Soc. Psychol., 1961, 62, 133-140.
- Wilmer, H. A. Practical Social Psychiatry: A Therapeutic Community. Springfield, Charles C. Thomas, 1958.
- Wolfensberger, W. P. Attitudes of alcoholics toward mental hospitals. Quart. J. Stud. Alc., 1958, 19, 447-451.

## APPENDIX I

ANALYSIS OF 337 CONSECUTIVE ADMISSIONS FROM MARCH 12 TO SEPTEMBER 12, 1962

## RACE

	Number	Percentage
White	263	78.04
Negro	68	20.18
American Indian	1	0.30
Undetermined	5	1.48

## NATIONALITY

	Number	Percentage
Negro:	68	20.18
American		
White:		
Irish	68	20.18
Polish	36	10.68
German	29	8.61
West. Europe; English; French; Welsh;		
Scotch; Dutch	19	5.64
Cent. & East. Europe; Lithuanian;		
Bohemian; Serbian; Austrian; Hungarian;		
Slovak; Ukrainian	17	5.04
Scandinavian; Swedish; Danish; Finnish	8	2.37
South. Europe: Italian; Greek; Spanish	6	1.78
Spanish Am; Puerto Rican; Mexican	3	0.89
American & Undetermined	83	24.63



## APPENDIX I (Continued)

## RELIGIOUS AFFILIATION

	Number	Percentage
Catholic	174	51.63
Protestant	146	43.32
Baptist	64	18.99
Lutheran	24	7.12
Methodist	22	6.53
Presbyterian	7	2.08
Episcopalian	3	0.89
Sects	9	2.67
Unspecified	17	5.04
Jewish	1	0.30
Aethist	1	0.30
Other	5	1.48
Undetermined	10	2.97

## MARITAL STATUS

	Number	Percentage
Single	59	17.51
Married, Wife Present	112	33.23
Married, Wife Absent	72	21.36
Divorced	70	20.77
Widower	16	4.75
Undetermined	8	2.37

## APPENDIX I (Continued)

## NUMBER OF MARRIAGES

	Number	Percentage
None	59	17.50
One	212	62.90
Two	40	11.87
Three	7	2.08
More than three	17	5.04

## NUMBER OF CHILDREN

	Number	Percentage
None	115	34.12
One	61	18.10
Two	53	15.73
Three	46	13.65
Four	28	8.31
Five	11	3.26
Six	5	1.48
Seven	4	1.19
More than seven	3	0.89
Undetermined	11	3.26

## PRIMARY OCCUPATIONAL SKILLS

	Number	Percentage
Professional, technical, managers, & Proprietors	23	6.82
Clerical & Kindred Sales Workers	44	13.06
Skilled Workers	104	30.86
Unskilled Workers	154	45.70
Undetermined	12	3.56

## APPENDIX I (Continued)

## EDUCATIONAL ATTAINMENT

	Number	Percentage
No Schooling	2	0.59
Part Grade School	48	14.24
Completed Grade School	44	13.06
Part High School	105	31.16
Completed High School	66	19.58
Part College	44	13.96
Completed College or more	19	5.64
Undetermined	9	2.67

## NUMBER OF SIBLINGS (NOT INCLUDING PATIENT)

	Number	Percentage
None	35	10.39
One	50	14.84
Two	62	18.40
Three	48	14.24
Four	42	12.46
Five	39	11.57
Six	18	5.34
Seven	20	5.93
More than seven	13	3.86
Undetermined	10	2.97

## ORDINAL POSITION IN FAMILY

Position	Number	Percentage
Only Child	35	10.39
Oldest Child	80	23.74
Middle Child	108	32.05
Youngest Child	84	24.93

## APPENDIX I (Continued)

## ORDINAL POSITION IN FAMILY

Position	Number	Percentage
Twin	2	0.59
Undetermined	28	8.31

## AGE AT ADMISSION

Age in Years	Number
20 - 24	6
25 - 29	20
30 - 34	44
35 - 39	53
40 - 44	54
45 - 49	60
50 - 54	51
55 - 59	28
60 - 64	14
65 - 69	6
70 - 74	1

Range: 20 - 74 years  
 Mean: 43.8 years  
 S.D.: 6.85 years

## APPENDIX I (Continued)

## REPORTED AGE AT WHICH ALCOHOLISM BECAME A PROBLEM

Age in Years	Number
10 - 14	4
15 - 19	25
20 - 24	54
25 - 29	43
30 - 34	56
35 - 39	48
40 - 44	37
45 - 49	25
50 - 54	7
55 - 59	5
60 - 64	3
65 - 69	0
70 - 74	1
<hr/>	<hr/>
Total	308

Range: 11 - 72 years

Mean: 32.5 years

S.D. 29.36 years

65 Patients (20%) had difficulties with alcohol  
3 years before admission.

261 Patients (80%) had difficulties with alcohol  
3 years before admission.

## APPENDIX II

### C.A.T.C. SENTENCE COMPLETION

Date of Admission \_\_\_\_\_

Floor: \_\_\_\_\_ 3rd \_\_\_\_\_ 4th

Directions: This is part of a Center research project. To carry out the project, we need to know what the patients honestly think about the Center. We greatly appreciate your cooperation.

Please complete the following sentences. Feel free to use your own words and say whatever you think and feel. Please do not sign your name.

1. This Treatment Center.....  
.....
2. The staff members in this Center.....  
.....
3. The best thing about this Center is.....  
.....
4. The patients in this Center.....  
.....
5. The treatment program of the Center.....  
.....
6. Being in this Center makes me.....  
.....
7. The psychiatric staff members are.....  
.....
8. The worst thing about this Center is.....  
.....

9. If I were in charge of this Center, I would.....  
.....
10. The nurses in this Center.....  
.....
11. The A. A. program at this Center.....  
.....
12. The medical department of this Center.....  
.....
13. The best thing about the staff of this Center is.....  
.....
14. The Recreation program of this Center seems.....  
.....
15. The Administration of the Center.....  
.....

ADDITIONAL COMMENTS:

### APPENDIX III

#### 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 underlying 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 (floor) get chances to make suggestions.  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
2. Being on this ward (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
4. Being on this ward (floor) 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 (floor) 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 (floor) a pleasant place.  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
7. The staff members on this ward (floor) play favorites.  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree



8. On this ward (floor) 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 (floor).  
(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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
11. Being on this ward (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
13. The patients on this ward (floor) 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 (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
16. This ward (floor) is depressing.  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
17. The aides (nurses) on this ward (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree

19. Being on this ward (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
21. The patients on this ward (floor) 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 (floor)  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
23. The staff members of this ward (floor) seem to know what they're doing.  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
24. Some of the aides (nurses) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
26. There's too much waiting on this ward (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree
27. The nurses on this ward (floor) 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 (floor).  
(1) Strongly agree (2) Agree (3) Undecided (4) Disagree (5) Strongly disagree

## APPENDIX III (Continued)

## STATISTICAL DATA OF PILOT STUDY WITH KLETT SCALE

<u>Raw Test Scores</u>		
<u>Subject</u>	<u>Third Floor</u>	<u>Fourth Floor</u>
1	85	85
2	92	98
3	96	90
4	84	71
5	90	87
6	62	65
7	104	104
8	99	86
9	77	80
10	100	92
11	87	86
12	94	86
13	92	82
14	91	83
15	91	91
	M= 89.60	M= 85.73
	S.D.= 9.81	S.D.= 8.54

## APPENDIX IV

### C.A.T.C. RATING SCALE

DIRECTIONS: This rating scale is part of a Center research project. The statements below were made by patients about the Center. We would like to know if you feel the same way about the Center. 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.

1. The staff at the Center are kind and considerate.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
2. The patients in the Center are encouraged to make suggestions.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
3. The patients in the Center start to drink as soon as they leave.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
4. Staff members at the Center think the patients can get better.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
5. The hospital volunteers in the Center do a fine job.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
6. The medical doctors who work in the Center avoid the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
7. It is hard to find someone to talk to in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
8. The nurses in the Center don't know how to work with the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

9. The Center has an excellent program.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
10. The nurses who work at the Center are always telling the patients what to do.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
11. The patients in the Center are neglected by the staff.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
12. The medical doctors at the Center know what they're doing.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
13. Everything has been done to make the Center a pleasant place.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
14. There are no complaints to make about the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
15. The nurses at the Center forget what patients ask them to do.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
16. A person's privacy is not respected in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
17. The nurses at the Center are excellent.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
18. I like the way they do things at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
19. The staff members at the Center could use some help themselves.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
20. They are too strict at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

21. The staff members at the Center are doing as much as possible to help the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
22. The Center makes you feel like a human being again.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
23. Being in the Center makes you feel worthless.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
24. Being in the Center helps you to make your own decisions.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
25. You are treated with respect in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
26. Being in the Center helps a person feel better about the future.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
27. There is plenty to keep you busy in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
28. The Center helps the patient to understand himself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
29. The patients in the Center really help each other.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
30. There is a spirit of cooperation among the staff at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
31. The staff at the Center are around when you need them.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
32. The ward meetings have no value.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

33. Time passes slowly in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
34. There are equal opportunities for everyone in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
35. Staff members promise more than they deliver in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
36. It is best to keep your "mouth shut" while you are in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
37. The staff members at the Center take time to listen to the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
38. There are too many rules and regulations at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
39. There is a happy spirit at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
40. The staff members at the Center have little personal interest in the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
41. The Center makes you feel "blue."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
42. The "patient government" that they have at the Center is useless.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
43. The program at the Center needs a "shot in the arm."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
44. They keep you too busy in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

45. The staff members don't let the patients "in on" what's happening at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
46. The psychiatric staff at the Center are really interested in their work.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
47. You get a lot from the group therapy at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
48. Being in the Center makes you nervous.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
49. The staff members at the Center are really "on the ball."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
50. The nurses at the Center "baby" the patients too much.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
51. There are not enough recreational activities at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
52. The nurses at the Center make the patients angry for no reason.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
53. The psychiatric staff doesn't know enough about alcoholics to really be helpful.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
54. The Center makes you realize that you don't need to drink.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
55. The patients in the Center have an equal chance to get passes.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
56. The patients at the Center don't do their work details properly.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree



57. The medical doctors at the Center can hardly wait to go home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
58. The A.A. program at the Center is well organized.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
59. The staff members at the Center play favorites.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
60. Hardly anyone in the Center understands the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
61. The medical doctors at the Center like the work they are doing.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
62. The patients in the Center can't wait until they are discharged.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
63. You don't see many smiles in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
64. The patients in the Center have confidence in the staff.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
65. The staff members at the Center don't care what happens to the patients after discharge.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
66. The patients in the Center don't help one another.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
67. They allow you to disagree at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
68. The Center makes you more confused than anything else.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

69. The Center is a success.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
70. The patients in the Center are a fine group of people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
71. In the Center you learn that you can be like other people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
72. You can't rely on the psychiatric staff at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
73. In the Center you can learn how to get along with people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
74. The food which is served at the Center is wonderful.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
75. The Center is neat and clean.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
76. Being at the Center makes you feel like you can help yourself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
77. They don't give you any answers in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
78. The staff at the Center don't have confidence in themselves.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
79. The patients in the Center should mind their own business.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
80. Being at the Center gives you an opportunity to work on your problems.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

81. I don't place much trust in what they say at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
82. The Center teaches you to "slow down" and think.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
83. The Center helps a person to speak openly and honestly about himself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
84. There is nothing to do in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
85. I don't like the way they do things at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
86. The Patients in the Center are better off not making any suggestions.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
87. The staff at the Center really know a lot about alcoholism.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
88. The Center is nothing more than a place to "dry out."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
89. Time seems to "fly by" in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree.
90. The medicine they give you in the Center is excellent.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
91. There are not enough visiting hours allowed in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
92. You learn a great deal about alcoholism in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

93. The coffee which is served at the Center is terrible.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
94. The religious services available to the patients in the Center are adequate.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
95. The only good thing about the Center is the A.A. program.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
96. There is plenty of freedom in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
97. It's hard to get along with the patients in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
98. The staff members at the Center are really friendly.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
99. Being in the Center is the best thing that could happen to an alcoholic.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
100. The staff at the Center think they know it all.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

APPENDIX V

STATISTICAL DATA

MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
1+	3.840	.366	3.040	.720	4.950
2+	3.480	.699	3.120	.652	1.881
3-	3.160	.611	2.400	.800	3.772
4+	3.520	.574	3.200	.489	2.119
5+	3.600	.632	3.320	.545	1.676
6-	3.680	.466	2.720	.825	5.061
7-	3.720	.825	2.840	.924	3.550
8-	3.880	.324	2.680	1.121	5.138
9+	3.880	.324	3.200	.632	4.781
10-	3.000	.979	2.600	1.131	1.336
11-	3.840	.366	2.920	.890	4.775
12+	3.800	.400	2.760	.949	5.044
13+	3.920	.271	3.000	.692	6.182
14+	3.160	1.155	2.360	1.053	2.558
15-	3.320	.881	2.520	1.024	2.959
16-	3.200	.979	2.720	.917	1.788
17+	3.880	.324	2.720	.960	5.722
18+	3.640	.480	2.720	.775	5.043
19-	2.640	1.228	2.080	1.055	1.728
20-	3.600	.489	2.920	.688	4.024
21+	3.800	.400	3.000	.489	6.324
22+	4.000	.000	3.080	.795	5.778
23-	3.880	.324	2.960	.915	4.734
24+	3.600	.489	2.760	.813	4.421
25+	3.800	.489	3.080	.271	6.428

"-" indicates a negatively stated item.

"+" indicates a positively stated item.

## APPENDIX V (Continued)

## MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

## t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
26+	3.840	.366	2.800	.848	5.625
27+	3.480	.699	2.840	.880	2.846
28+	3.640	.557	2.720	.601	5.611
29+	3.520	.499	2.520	.854	5.052
30+	3.560	.752	2.680	.733	4.187
31+	3.560	.571	2.720	.775	4.359
32-	3.320	1.121	2.240	.949	3.674
33-	3.000	1.038	2.240	.906	2.901
34+	3.720	.448	2.880	.711	4.994
35-	3.360	.685	2.320	.733	5.179
36-	3.240	.861	2.360	1.053	3.232
37+	3.680	.614	2.760	.763	4.694
38-	3.280	.825	2.920	.560	1.804
39+	3.520	.499	2.240	.763	7.016
40-	3.640	.557	2.320	.835	6.573
41-	3.320	.733	2.360	.932	4.045
42-	3.440	.637	2.360	.932	4.778
43-	3.240	.649	1.960	.870	5.889
44-	3.080	.976	2.520	.943	2.060
45-	3.240	.861	2.480	.854	3.132
46+	3.760	.427	2.400	.894	6.860
47+	3.560	.571	2.280	.917	5.921
48-	3.320	.733	2.360	.889	4.165
49+	3.640	.480	2.480	.899	5.687
50-	3.360	.889	2.840	.880	2.078
51-	2.880	1.210	2.640	1.091	.736
52-	3.640	.480	2.760	.813	4.656
53-	3.520	.574	2.200	.894	6.209
54+	3.600	.489	2.640	.842-	4.923
55+	3.760	.427	2.920	.688	5.185
56-	3.200	1.058	2.160	1.083	3.432
57-	3.480	.574	2.320	.733	6.228
58+	3.760	.427	2.440	1.061	5.769
59-	3.400	.894	2.880	.652	2.348
60-	3.720	.448	2.840	.833	4.648
61+	3.560	.571	2.240	.708	7.249
62-	2.640	.974	2.120	.908	1.950
63-	3.360	.974	2.680	.785	2.715

## APPENDIX V (Continued)

## MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

## t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
64+	3.680	.545	2.560	.897	5.329
65-	3.520	.854	2.280	.960	4.824
66-	3.680	.466	2.440	1.061	5.348
67+	2.880	1.336	2.760	.708	.396
68-	3.720	.448	2.640	.932	5.215
69+	3.800	.489	2.880	.587	6.011
70+	3.640	.557	2.320	.835	6.573
71+	3.880	.324	2.720	.664	7.840
72-	3.320	1.223	2.121	.992	3.807
73+	3.380	.324	2.960	.344	9.719
74+	3.880	.324	3.040	.662	5.694
75+	3.840	.366	3.200	.489	5.229
76+	3.920	.391	3.080	.627	5.677
77-	3.400	.632	2.320	.835	5.154
78-	3.720	.530	2.640	.793	5.654
79-	3.000	1.326	2.000	1.095	2.906
80+	3.880	.324	2.800	.848	5.943
81-	3.640	.557	2.800	.800	4.308
82+	3.520	.899	3.000	.748	2.221
83+	3.880	.324	3.000	.692	5.749
84-	3.680	.466	3.040	.598	4.216
85-	3.680	.466	2.720	.872	4.850
86-	3.640	.557	2.480	1.203	4.371
87+	3.520	.899	2.400	.692	4.931
88-	3.720	.448	2.720	.825	5.320
89+	3.160	.833	2.120	.863	4.333
90+	3.640	.624	2.840	.542	4.833
91-	2.920	1.092	2.640	.889	.993
92+	3.680	.466	2.800	.800	4.751
93-	3.320	.881	2.640	1.127	2.375
94+	3.400	.894	3.000	.692	1.767
95-	3.320	.881	3.280	.601	.187
96+	3.800	.400	3.200	.400	5.303
97-	3.560	.496	2.840	.611	4.569
98+	3.880	.430	2.880	.765	5.693
99+	3.840	.463	3.080	.627	4.873
100-	3.720	.448	2.840	.731	5.128

## APPENDIX VI

### C.A.T.C.

#### RATING SCALE

**DIRECTIONS:** This rating scale is part of a Center research project. The statements below were made by patients about the Center. We would like to know if you feel the same way about the Center. 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.

1. Everything has been done to make the Center a pleasant place.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
2. The Center makes you feel like a human being again.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
3. Staff members promise more than they deliver in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
4. The nurses in the Center don't know how to work with the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
5. You are treated with respect in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
6. The staff members at the Center are doing as much as possible to help the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
7. The Center is nothing more than a place to "dry out."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
8. The psychiatric staff at the Center are really interested in their work.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree



9. The "patient government" that they have at the Center is useless.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
10. The program at the Center needs a "shot in the arm."  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
11. The A.A. program at the Center is well organized.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
12. The medical doctors at the Center like the work they are doing.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
13. The staff members at the Center don't care what happens to the patients after discharge.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
14. The Center makes you more confused than anything else.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
15. The patients in the Center don't help one another.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
16. You get a lot from the group therapy at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
17. In the Center you can learn how to get along with people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
18. They don't give you any answers in the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
19. Being at the Center gives you an opportunity to work on your problems.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
20. The staff at the Center doesn't have confidence in themselves.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

21. The Center helps a person to speak openly and honestly about himself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
22. I don't like the way they do things at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
23. The Center is a success.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
24. The patients in the Center are a fine group of people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
25. In the Center you learn that you can be like other people.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
26. The psychiatric staff doesn't know enough about alcoholics to really be helpful.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
27. The medical doctors at the Center can hardly wait to go home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
28. The staff members at the Center have little personal interest in the patients.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
29. The staff at the Center think they know it all.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
30. There is a happy spirit at the Center.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

# APPENDIX VII

## PRE AND POST-TEST SCORES OF THIRD AND FOURTH FLOOR PATIENTS

<u>Third Floor</u>			<u>Fourth Floor</u>		
S	Pre-Test	Post-Test	S	Pre-Test	Post-Test
1	103	117	1	91	97
2	87	96	2	107	112
3	90	99	3	94	99
4	97	101	4	81	88
5	108	116	5	107	110
6	85	95	6	82	89
7	100	109	7	89	94
8	83	95	8	94	97
9	89	98	9	86	93
10	86	97	10	84	91
11	79	76	11	86	82
12	91	102	12	83	83
13	74	82	13	74	83
14	89	91	14	103	99
15	80	89	15	78	81
16	93	104	16	84	80
17	96	94	17	100	100
18	104	116	18	98	101
19	105	108	19	97	97
20	95	103	20	89	88
21	91	95	21	94	102
22	106	105	22	80	90
23	85	87	23	87	95
24	101	100	24	96	102
25	84	95	25	112	113
$M_D = 6.76$			$M_D = 3.60$		
$S_{M_D} = .903$			$S_{M_D} = .722$		
$t = 7.48$			$t = 4.98$		

## APPROVAL SHEET

The dissertation submitted by Vincent D. Pisani 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.

June 29, 1964  
Date

Frank Hobler  
Signature of Adviser