PREDICTING STAY OR LEAVE RESPONSE OF HOSPITALIZED TUBERCULOSIS PATIENTS

DISSERTATION

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By

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CHAPTER I

INTRODUCTION

Statement of the Problem

Tuberculosis still a problem.---While the death rate from tuberculosis continues to decline rapidly,¹ there are still approximately 400,000 known active cases in the United States. Moreover, in 1952 the rate of newly discovered cases with active or probably active disease reported to state health departments was 55 per 100,000 population for the United States as a whole. These rates range from a low of 16 per 100,000 in Nebraska to a high of 164 in Arizona.²

There is much agreement among those most interested in reducing the spread of tuberculosis that the fight is by no means over. In addition to finding cases while still in the minimal stages, there remains the problem of successful treatment and isolation of cases already discovered. Within the last generation better case-finding methods have enabled the tuberculosis hospital to play an important role in dealing with the latter problem. The following statement of Dr. Raymond C. McKay, Director of the tuberculosis unit at Cleveland

¹Among the Industrial policy holders of the Metropolitan Life Insurance Company, the rate established a new minimum of 10.2 per 100,000 for the first ten months of 1953, a reduction of more than one quarter from the previous year.

City Hospital, summarizes this view:

Ideally, a tuberculosis hospital should be expected to perform three basic functions—to cure whenever possible, to rehabilitate the convalescent patient, and to provide for patients with incurable disease prolonged isolation in an environment sufficiently attractive to be acceptable to them.3

The place of the hospital in tuberculosis treatment has recently been brought up for re-examination.—The findings of a report on the "unhospitalized patient"4 indicate that the conception of the sanatorium as the only place to treat tuberculosis is changing. What is needed, they conclude, is not hospital or home treatment, but a plan for coordinate management of each patient using all available facilities. In another article Dr. Mitchell5 concludes that while the hospital still plays a vital role in treatment, hospital directors must answer the challenge raised by the diminishing demand for beds due to recent advances in treatment. It is suggested that not only can the administration concentrate on a smooth and efficient institution, but also on a happy and effective one. If the hospital is to cure, the patient must be detained sufficiently long to be cured, and lacking the force of legal sanctions,6 administrators are in the unenviable position of striving to convince the patient of the value of hospitalization for him before being able to demonstrate the point.

Now that hospital directors are somewhat relieved of the pressure of waiting lists and insufficient beds, they may be able to give some attention to the problem of patients leaving the hospital before treatment has been completed to the satisfaction of the medical staff.

Unauthorized discharges.—As indicated above, the high incidence of relapse among patients and of unauthorized discharge from the tuberculosis hospital remain an obstacle to the goal of final eradication. The rate of unauthorized, or irregular, discharge has remained between thirty and seventy percent, varying with location and type of institution, but little with time, in the past two decades. Of the 6,906 discharged tuberculosis patients reported on by Dempsey and Whitney in 1933, 2,311 or thirty-three percent were irregular. In 1940 Drolet studying forty institutions in New York and New Jersey, discovered that of 10,457 discharged, 3,058 or twenty-nine percent were irregulars. Between 1942 and 1947, fifty-four to seventy-two percent of discharges from Veterans' Administration Hospitals were irregular. Brewster's 1948 figure was forty-two percent. Irregular discharge rates for the Veterans' Administration Hospitals and non-Veterans-Administration hospitals fall within the

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7J. S. Whitney and M. V. Dempsey, A Study of Patients Discharged Alive from Tuberculosis Sanatoria in 1933, National Tuberculosis Research Series, No. 8, 1942.


same limits. This high rate of irregular discharge may be compared with the lower rate in England, despite greater food stringencies, staffing difficulties, and lack of modern apparatus.

By irregular or unauthorized discharge is meant any withdrawal of the tuberculosis patient from hospital treatment against medical advice. This category includes patients who sign their own releases without the approval of the medical staff, those who walk out without the staff's knowledge, those who fail to return from passes, and those who are discharged for disciplinary reasons. The meaning of the rates is often confused by the method whereby such rates are computed, and by the variations in methods used by different institutions. As Tollen points out, percentages computed are for the number of irregular discharges, not for the number of patients having irregular discharges, in other words including repeats. Additionally, some hospitals base the rates on patients discharged alive, others on total number discharged including those due to deaths; some include transfers, others do not; etc. Crediting of irregular discharge varies also with administration, some hospitals authorizing discharges more leniently than others. This lack of standardization in the meaning of the term "irregular" discharge makes comparison or evaluation of rates difficult. It is possible, however, to conclude that unauthorized discharge in general is as prevalent as authorized discharge.

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11 Ibid.

12 Ibid.
Examining the "problem" of irregular or unauthorized discharges from tuberculosis hospitals.--This study is addressed to the problem of sorting out at the time of admission those patients who will not complete treatment, so that greater effort may be made either to keep them in the hospital or to help plan more adequate supervision and treatment outside the hospital. While the results of an investigation into this problem have definite practical applications, a contribution may also be made to sociological theory through analysis of empirical evidence testing certain hypotheses derived from the general body of theory.

Before presenting the theoretical framework in which this study was made, we shall summarize some other relevant studies found in the literature, and briefly examine their premises.

Review of the Literature

The nature of the literature.--A vast amount of material has been written on the social and psychological aspects of tuberculosis, and more specifically on the socio-psychological nature of the problem of "irregular" discharges. Much of the literature relating to unauthorized discharge is very recent, expressive of the concern mentioned above for hospital treatment to be more effective in reducing transmission of the disease. Some empirical research has been reported on unauthorized discharge; some deriving from the theory of psychosomatic genesis of tuberculosis and resulting in testing and case study methods; others, based on no explicit theory, rest on frequency tabulations of social background factors. Although the
socio-psychological explanations of tuberculosis advanced in the literature are not of direct concern to this study, a brief summary of the findings will be presented here to provide a background for a review of the studies of irregular discharge. Not only did such explanations historically precede the explanations for irregular discharge, but they seemed to point the way for later investigators searching for reasons for the irregular discharge. Similarities in the structuring of the two problems are evident, and overlap in the investigations appears to be a logical consequence. The model for inquiry in both cases is as follows: People react differently to similar situations (e.g., of two members of the same family each exposed to the same contacts, only one contracts TB; of two patients in the same hospital, receiving the same treatment, only one leaves before completing treatment); differences must be due to some factor of personality rather than to the situation. Let us therefore turn briefly to the literature dealing with the question of who contracts TB, after which we shall look more carefully at studies designed to discover who leaves the hospital against advice.

The tuberculosis personality as it appears in the literature.-- From among the large numbers of studies designed to discover the personality make-up of the tuberculosis, two areas of agreement emerge from conclusions, which contradict each other in profusion: (1) Tuberculosis patients are different from other people in some known or unknown ways and are similar to them in other ways; (2) the relationship between tuberculosis and personality is indeterminate, it being uncertain whether personality characteristics predispose to tuberculosis
or whether having tuberculosis results in certain personality characteristics.

With respect to the first area of agreement, hospitalized tuberculosis patients have generally been conceded to have intelligence quotients within the same range as the general public, some studies indicating intelligence to be slightly, but often not significantly, higher in institutions than in the general public.13

Tuberculosis patients have generally been described as possessing mental states specific to the disease.14 Some observers have characterized tuberculosis patients as anxious,15 resulting from frustrated needs for affection and inability to deal with their aggressive impulses. Others have found the scores of the tuberculous deviate from the norms by which the several tests were standardized. Among the tests administered were the Jasper Elation-Depression Tests;16 the

13For a summary, including N's and descriptions of the samples and tests, see R. G. Barker, B. A. Wright, and M. R. Gonick, Adjustment to Physical Handicap and Illness: A Survey of the Psychology of Physique and Disability, Social Science Research Council, Bulletin 55 (1946) chap. iv, "Psychology of the Tubercular."

14One exception is A. M. Forester and C. E. Shephard, "Abnormal Mental States in Tuberculosis," A. R. T., Vol. XXV (1932). He reports sixty-nine percent of his sample 100 patients as normal, seven percent slightly neurotic, twenty percent definitely neurotic, and four percent psychotic; he did not use a standard test.


16Barker, op. cit., reports Jones and Bogan discovered tuberculosis patients are moderately depressed.
the Mailer Personality Sketches, the Bernreuter Personality Test, the Rorschach Projective Test, and the Minnesota Multiphasic Personality Inventory. Examples of the discrepancies which occur in the findings will be cited from two studies in which the Rorschach was used and from six studies in which the MMPI was administered to tuberculosis patients.

Of the two studies comparing Rorschach results of tuberculosis patients with norms and clinical expectations, one study concludes that the Rorschach's of the tuberculous indicate a low productivity, lower affectivity, stereotypy and introversion, while the other considers the most significant aspect of the results to be the extratensive experience-type (m:c relationship) of the tuberculous.

While tuberculosis patients score differently on the Minnesota Multiphasic Personality Inventory than the groups on which the test was standardized, the differences do not appear to be consistent from

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17 M. A. Seidenfeld, "A Comparative Study of Responses of Tuberculosis and non-Tuberculosis Subjects on the Mailer Personality Schedules," Journal of Psychology, IX (1940), 247. With fifty tuberculous and fifty college students in the sample he finds that fifteen out of 100 questions show significant differences.

18 I. T. Shultz shows that both men and women in the tuberculosis hospital are more neurotic, more lacking in self-sufficiency and self-confidence, more introverted, more submissive, and more gregarious than the norms for the standardizing group. ("Psychological Factors in Tuberculosis Patients," A. R. T. [1941], 557-565). Also cf. L. E. Siltzbach, "Medical Aspects of the Rehabilitation of the Tuberculous," A. R. T., XLVI (1942), 489.


20 Barker, op. cit., reviews the study of F. Singeisen who compared fifty tuberculous, fifty cardiaics, and fifty physically normals (Schweizer Archiv fur Neurolgie und P.sychiatrie, XLV [1940], 230).
one group of patients to another. Some researchers\textsuperscript{21} find that while
differences fall within the range of the normal, mean scores on some
scales are higher than on others. Similarly, other investigators\textsuperscript{22}
discover differences between the groups on items whereas scale dif­
ferences do not appear to exist. In contradistinction to these
findings, some studies show scores of the tuberculous to be in the
direction of maladjustment on each of the scales, with none or few
differences lacking significance beyond the one percent level of
significance.\textsuperscript{23}

\textsuperscript{21}Derner, op. cit., found with thirty-six patients that the
average for all scales fell within the normal range of 50-60, although
the mean scores on the Psychasthenia Scale, the Hypomania Scale, and
the Hysteria Scale were above fifty-five.

\textsuperscript{22}M. E. Rorabaugh, "Tuberculosis Patients Who Leave the San­
atorium Against Medical Advice" (Unpublished Master's thesis, Dept.
of sample of seventy she compared an admission groups with a normal
group and found no differences on scale scores, although she did find
significant differences on sixteen items out of a total of 566 on the
MMPI.

\textsuperscript{23}E. W. Speth's population showed only the Masculinity-Femininity
Scale and the Paranoia Scale not significantly different ("An Investi­
gation of Emotional and Social Concomitants in the Irregular Discharge
Rates of Hospitalized Patients with Tuberculosis" (Unpublished Ph. D.
dissertation, Dept. of Psychology, University of Pittsburgh, 1953).
Differences between G. W. Albee's population of fifty-two and the norms
were in the same direction ("Psychological Concomitants of Pulmonary
Tuberculosis," A. R. T., Vol. LVIII 1948 .) T. J. Hand, from results
of eighty-eight patients compared with Wiener's five disability groups
concludes that tuberculosis patients are high on the neurotic triad
of hypochondriasis, depression, and hysteria as compared with standardiz­
ing groups, and significantly higher than Wiener's on the Hypochondriasis,
Depression, Hysteria, Psychasthenia, and Schizophrenia Scales, but
lower than Wiener's on the Masculinity-Femininity Scale. (Personality
Characteristics of a Tuberculosis Group," American Journal of Psycho­
logical Medicine, Vol. XXXI 1952 .). J. P. Whooley found significant
differences on all nine scales for forty-eight males and on seven scales
for thirty-six females ("The Application of the Minnesota Multiphasic
Personality Inventory to Hospitalized Tuberculosis Patients" (Unpub­
Results are inconclusive.--The majority of the studies on the "psychology of the tubercular" have been criticized for failing to furnish evidence on which the conclusions are based and for use of inadequate designs of experiments. In most instances controls could not be established, and in many, the numbers of cases proved too small. Many do not test with any reliable instrument, the data being the observations of physicians on the ward; as one study established, there is a low correlation and sometimes a negative one between physicians' judgments and scores on the Bernreuter.

Which is "cause" and which is "effect".--Attempts to establish the direction of the relationship between personality patterns and tuberculosis have resulted in even more inconclusion, although as far back as 1901 articles on the subject began to appear in the literature. As early as 1923 the argument was advanced that since the great majority of people are at some time infected by tubercle bacillus, yet only a comparatively few break down with a chronic form of tuberculosis in adult life; therefore there must be some factor other than the tubercle bacillus responsible for the failure of the body to defend itself against the disease. This thesis has been criticized as overlooking the possibility of frequently repeated infection.

24 See Barker, et al., op. cit., for a critical review.
25 Shultz, op. cit.
27 Cf. L. Brown, "Mental Aspects in the Aetiology and Treatment of Pulmonary Tuberculosis," International Clinics, III (1933), 152-153: "However, after some thought upon the subject I am willing to admit that so-called psychic injuries can, and do, in a certain number of
conclusion that personality conflicts have a contributing role in the onset and progression of pulmonary tuberculosis predominates. This viewpoint may be summarized as follows:

Causal factors are probably to be found in more or less commonly expected childhood and adolescent problems of adjustment and habit formation, likely intensified by emotional shock and institutional confinement, rather than in the direct effects of institutional confinement and illness. These latter may play a more important part in some specific instances though.

Other recent writers have stressed the effects of the illness and the difficulties it creates environmentally, which in turn have their effect upon the personality of the patient. In contradiction to this position, however, Rorabaugh, after a comparison of an admission group with a discharged group on items of the MMPI, finds significant differences on only four items; therefore, she concludes:

These results show that the way in which tuberculosis subjects answer the items of the MMPI is little affected by their hospital stay and that the differences between those discharged and those leaving against advice were very likely present at the time of admission to the sanatorium. These differences are likely concerned chiefly with basic personality structures of the individuals involved and probably reflect their characteristic adjustment to their life situation as a whole.

patients, have some etiological bearing upon the development of latent into active pulmonary tuberculosis."

28. E. Wittkower, op. cit., studying 300 patients concludes the patients fall into five "premorbid personality" groups, and he strongly suggests the relevance of emotional factors in the etiology and course of pulmonary tuberculosis. J. Hartz, "Tuberculosis and Personality Conflicts," Psychosomatic Medicine, VI (January, 1944), 370: "An individual may react to life situations with an anxiety state or other personal behavior in such a way as to interfere with healthy living and these reactions may thereby become a most significant factor in the onset and course of clinical tuberculosis."


Approaches to the study of unauthorized discharge.—While it is interesting to note the direction of the thinking about the social psychological factors in the etiology of the disease, the major concern of this study is with a more specific problem. As has been mentioned above, our purpose in citing the references has been to indicate congruities in these two problems and attempts to solve them. On the whole the studies aimed more directly at discovering causes of, and/or predicting or controlling "irregular" discharges take over where the former left off. Methodological innovations appear, however in two of the three major types of study into which the investigations may be classified. The three types are: (1) tabulation by frequencies of socio-economic factors, (2) categorization by frequency of the probable reasons for leaving against medical advice as given by patients, administrators, social workers and others, and (3) administration of tests and comparison of neurotic or emotional tendencies. The third type appears to be a direct outgrowth in both method and scope of the studies of tuberculosis personality, and will be reviewed following a discussion of the first two types.

Comparisons of frequency distributions of patients discharged

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from tuberculosis hospitals.--Factors suspected of being related to irregular discharge are: condition at discharge in terms of improvement, duration of illness, length of stay, number of previous admissions, education, permanent address, psychiatric diagnosis in addition to tuberculosis, occupation, degree to which disease has advanced, age at admission, marital status, number of dependents, sex, race, time of admission, military service, religion, and geographical factors.34 On the first eight of these factors there appears to be definite relationships with irregular discharge, although in some instances we have the findings of only one study on which to base conclusions. On age at admission, and degree to which disease has advanced, the evidence from the various studies is inconclusive. On the last eight of the factors there appears to be no relationship with the irregular discharge.

Reasons why patients leave the hospital against medical advice have been sought in several studies.--Several investigators list "reasons," such as, family, business, and financial reasons, dissatisfaction with the hospital rules and procedures, inability to find absorbing activity in the hospital, alcoholism, etc.,35 along with the respective percentage of patients leaving the hospital over a specified period of time. These reasons may be as extended or contracted as


35 Tedesco, op. cit.
desired, the lists ranging from seventeen or more down to a concise three-fold classification. The conclusions of the study of the Executive Committee of the Veterans Administration Medical Council in which 533 irregularly discharged patients were interviewed by social workers and questionnaires were completed by 401 ex-patients, could be divided into three main divisions: (1) those originating outside the hospital and related to personal, social, and economic status; (2) those originating within the hospital; (3) those emanating within the personality of veterans. "According to the social workers, the irregular discharges were divided equally among these three groups, but eighty percent of the patients attributed their discharges to factors arising within the hospital."37

The third type of study.--Continuing the line of reasoning inherent in the "tuberculosis personality" quest, many investigators seek for differences between regularly and irregularly discharged patients in emotional and psychological characteristics. Studies may be found which discover neurotic trends in patients whose discharge is unauthorized.38 It is further concluded that such patients are basically immature, dependent, insecure, and show asocial behavior in and out of the hospital. Interestingly, there came to our attention only one study39 which suggests that the patients who leave against medical advice are the emotionally healthy ones. The argument here

36Report of Executive Committee of the Veterans Administration Medical Council of Feb. 8-10, 1943, Memorandum of Assistant Administrator to the Administrator, June 1, 1943.
37Tedesco, op. cit., p. 394. 38Weinberg, op. cit.
is that relatively psychologically healthy patients, being neither passive nor dependent, make "bad" sanatorium patients.

Comparisons on the MMPI between the two groups of patients are at variance. Conclusive evidence on the effect of the hospital environment on personality changes is lacking. Little research on this relationship exists.

Summary

While the magnitude of the literature on tuberculosis, personality, and irregular discharge is impressive in itself, distillation of the findings results in a few not very profound generalizations. But it is not sufficient merely to point out that contradiction is the essence of all the literature; nor that researchers were guilty in some instances of some rather obvious breaches of the scientific method. To draw some conclusions concerning areas of agreement and disagreement appears more to the point.

40 In 1952, Hand, op. cit., reported significant differences in MMPI scores on the Psychopathic Deviate and Hypomania Scales of irregular and regular discharges. A similar study reported by M. Rorabaugh and G. Guthrie, "The Personality Characteristics of Tuberculosis Patients Who Leave the Tuberculosis Hospital Against Medical Advice," A. R. T., Vol. LXVII (April, 1953), fails to confirm his results, although they did find significant differences between the groups on some of the items of the scales. Speth, op. cit., 1953, corroborated the findings on the Psychopathic Deviate Scale, and further related the findings to a theory of former personality under stress.

41 Speth, op. cit., hypothesized changes in personality due to the hospital environment. He found differences between his scores on patients in the hospital and Albee's group data collected in 1952 on incoming patients, which to him suggests that traits of personality are influenced by hospital procedures. Rorabaugh's data, op. cit., does not substantiate this finding.
On the problem of tuberculosis personality.—First, there is agreement concerning certain behavior symptoms peculiar to the tuberculosis patient. There is little disagreement that individuals with tuberculosis can be expected to behave differently from individuals who do not have the disease. There is not the same concurrence on whether tuberculosis patients are depressed, show neurotic signs, and score differently on personality tests than other individuals, as a result of their diseases, or whether these same patients have tuberculosis as a result of whatever is behind their behavior symptoms. The extent to which the existing disagreement on this latter point matters, depends upon whether one is interested in treatment or prevention. For those interested in prevention the cause and effect relationship is important; for those interested in treatment it is less so.

On the problem of unauthorized discharge.—An area of agreement on the "irregular" discharge problem is that the two groups of patients respond to similar situations in different ways, and are unlike with respect to certain background factors. There is little agreement as to precipitating factors or the causal nexus in the behavior; i.e., whether the complete set of behaviors for adjusting which the patient brings with him determines leave-or-stay responses, or whether certain elements in the situation are more important to the behavior of individuals.

One difficulty in assessing the literature on irregular discharges is that the connection between irregular discharge, tuberculosis, and behavior symptoms is left undefined. Investigators looking for
differences between the two groups in personality do not usually specify whether their search for differences is in kind or in degree.

Aside from the methodological weaknesses noted by Barker, there are in particular two other significant considerations stemming from an assessment of the literature, one appearing to be the result of over-generalization and the other, of inadequate generalization. With reference to the first, one is particularly struck by the lack of any coherent, logically derived explanation of the irregular discharge. If both the tuberous patient (in general) and the irregularly discharged patient (specifically) are anxious, neurotic, etc., the theoretical difference between these two becomes blurred. Closely related to the former criticism but resulting in inadequate generalization is the failure of most researchers to get outside of the "problems" approach. As long as irregular discharge is merely a problem to be remedied, it cannot be seen as a specific example of more general behavior, and comprehension will be sought only in the immediate situation.
CHAPTER II

THEORETICAL BACKGROUND

Rationale

In attempted explanations of the phenomenon under study (frequency tabulation studies of background factors do not represent explanation), immediate emotional and environmental factors have been emphasized most strongly, the several writers who attempted a multi-causal explanation dividing the "reasons" into three of equal weight—problems of personality, problems arising in the hospital, and problems arising outside the hospital. Some researchers have played up long-standing emotional problems, arriving at a type of monistic theory. Several comments are in order with respect to these kinds of explanations, especially concerning their validity and significance.

The multi-causal explanations.—These are dependent upon the ability of judges to sort out of a mass of case studies the real "reasons" why patients leave the hospital, regardless of what the patients themselves say their reasons may be. The discrepancy in the V. A. studies between judgments made by social workers and the patients' own reasons for leaving is provocative. One wonders why the break into three categories falls so neatly into thirds when made by social workers and why the preponderance fall into in situ factors when classed by patients. We suspect, of course, differential perspective to be the answer, and we conclude that impartial judges are able to
weight the importance of certain factors better than the person who is emotionally embroiled in the situation. For example, an individual exhibiting behavior which might be judged neurotic by others is not likely to attribute his leaving the hospital to his personality problems. This discrepancy while in itself probably insignificant, for these purposes serves however, to point to the failure on the part of investigators to question the meaning of these "reasons" for leaving. The lack of comparison with the regularly discharged group leads to questions concerning the existence of identical factors in identical proportions in this group. Without a control group, such as a regularly discharged group of patients would constitute, it is impossible to know whether tuberculosis is uniquely disruptive of the normal lives of irregularly discharged patients; whether only they are subject to and responsive to new surroundings and rules; whether they are more restricted with respect to physical exertion in relation to their wage-earning capacity; whether only they suffer from changes of role in family relationships, from financial problems, boredom, etc. In fact, approaching the question from this point of view, one feels equally justified in asking of the regularly discharged patient why they stay, focusing attention on the anomalous position of this group, rather than the other. Had the investigators asked this question they could not have been satisfied with their three-fold explanations.

The above seems to follow logically from a consideration of the nature of the disease and its treatment. All that has been written about the diagnosis of tuberculosis constituting a shock to the patient,
the absence of painful symptoms making treatment seem unnecessary, the hospitalization period being prolonged and upsetting to the established routines and role-relationships of patients and their families, the treatment appearing unsensational and protracted and progress difficult to discern, the financial burdens weighing heavily—all this would lead the observer to believe that what is problematical is not the fact that patients leave before the hospital authorizes termination of treatment, but that so many patients actually complete treatment. It seems reasonable to conclude without contradictory evidence being available that there is no difference in the proportions of patients in both groups who have personality problems, problems arising in the hospital, and problems arising outside the hospital. Some patients stay despite, or perhaps because of, family difficulties; others leave. Some "neurotic" patients remain under treatment; other "normal" patients leave before treatment is completed. It is to be expected that differences between patients who stay and patients who quit treatment are based on more subtle distinctions, perhaps including a difference in the way in which the patient has been conditioned to respond to illness and hospitalization. Perhaps this is why researchers find correlates in social background factors such as duration of illness, severity of disease, and number of previous hospitalizations.

The singling out of personality problems—In the single factor explanations presented as hypotheses for empirical study of regular-irregular discharge differences, personality problems receive the most attention. The MMPI has been administered repeatedly, in attempts to uncover neurotic patterns in irregularly discharged patients. The
results of this test and others which include items relating to situations that are completely different from the actual situation of "normal" (non-ill) individuals, have been interpreted for the most part without any qualifications:

Do you feel you are an unlucky person?
Are you often unable to fall asleep because of some thought?
Do you often dream that some people died?
Do you feel ashamed of some sickness or trouble?

On the Minnesota Multiphasic are found these items:

I prefer a play to a dance.
I have had more than my share of things to worry about.
My sleep is fitful and disturbed.
I am in just as good physical condition as most of my friends.

The usual interpretation placed on answers provided by hospitalized tuberculosis patients to such questions is suspect when the special situation of such individuals is ignored. It is difficult to perceive how answers different from the answers of normals make tuberculosis patients as a whole "neurotic" and how answers of irregulars different from answers of regulars make irregulars "neurotic." Significant differences between the two groups on such items are important, but perhaps important in the light of some other explanation for them.

For example, Rorabaugh and Guthrie\(^2\) are able to classify into four sets the forty-eight items on the MMPI on which significant differences obtain between the group who left against advice and the group who remained until medical discharge. Concerning the responses by the irregularly discharged patients to one set of items, they conclude: "Assuming face validity of the items there is indication

\(^2\)Rorabaugh and Guthrie, op. cit.
that these people can be described as non-conforming and individualistic, high strung, tense, rather hostile and insecure. Another set of items responded to positively by patients who stayed to complete treatment led them to the generalization: "...these persons are a rather conforming, secure, cautious, placid type of person." A third set was eliminated because the items contributed to the masculinity-femininity scale, and a fourth group of items was classed as miscellaneous. Comparisons were also made of the two discharged groups with normal subjects and again with other sick persons. This procedure of examining the significant items for commonalities from which to generalize is more meaningful than describing results in terms of scale scores.

Behavior is relative to situations. From the few empirical studies of irregular discharges it is impossible to conclude that patients who leave the hospital against medical advice are neurotic or that they are less likely to hold up in stressful situations, but there does appear to be some evidence that patients who leave against medical advice characteristically respond to certain situations differently than patients who complete treatment, at least verbally. This differential pattern of habitual responses, which may be termed personality, has its origin in differential social situations, according to sociological theory. A knowledge of the social structure to which individuals are required to respond and a knowledge of relevant past social experiences of individuals should lead to predictive

43 Ibid., p. 22.
statements concerning behavior relating to certain situations. We take issue with the Bermans' statement: "No analysis can give all the reasons why patients interrupt the treatment process, since we cannot describe every individual who has been sick." The point of view striven for here is to perceive all patients in the socially defined role of the sick person in our society, acting within an institutionalized set of behaviors relating to the doctor and to the hospital structure.

This general framework is derived from sociological theory, which has stressed the close relationship between personality and social structure, from the explicit statements made by C. H. Cooley to the reformulation by Parsons of the two terms of the equation as role behavior patterns related to each other in institutionalized settings.

Individual vs. institutional aims.---Throughout this developing theory runs the theme of social control. The close approximation between personality of role incumbents and social structure results theoretically in an effectively operating social system, and in conformity on the part of the individual. As both Cooley and Parsons indicate, conformity of the individual and equilibrium within the social

system are dynamic as well as structural, and the objectives of both the personality and the social system may change; the prerequisite of equilibrium is that the requirements of the social system, derived from its values, do not conflict with the requirements of the personality, derived from similar value referents. The problem of control has been conceived then as the minimizing of antagonisms between patterns of role participation and patterns of role requirements, i.e., between personality and social structure.

Analytically such antagonisms appear to be latent in the situation to which individuals who have tuberculosis are expected to respond. If, as Parsons suggests, the role of the sick person in our society, in its institutionalized aspects, is to provide a respite from the compulsory order of the social world so that the individual will be able to reorganize for resumption of his normal social obligations, the assumption of the role by individuals will depend upon the preparation those individuals have for the relationships involved in it and upon the facilitation which impinging social conditions provide. In other words, the individual's assuming the sick role is dependent upon the preparation he has had for the demands of the patient-doctor relationship, and the requirements of the hospital structure.

The conditions of the ideal patient-doctor relationship.-- Since patients and their families are helpless, that is, not only not in a position to do what needs to be done, but also not "knowing" what needs to be done, since patients are technically incompetent to make a choice between alternate behaviors, and since patients and their
families are emotionally involved (shock and anxiety), patients are peculiarly vulnerable to exploitation and it is peculiarly difficult for them to make decisions involving a high degree of rationality.

Owing to these last two conditions, the ideal doctor-patient relationship is one of mutual trust, where the physician tries to help and the patient cooperates. The ideal doctor-patient relationship is of course achieved in varying degrees. Certain types of experiences may prepare some patients for this type of relationship better than others are prepared by different types of experience.

Some complications in the ideal patient-doctor relationship—

Making it difficult for some individuals to participate in the ideal doctor-patient relationship is the fact that the illness designation has received definite inferiority-dependency implications, that the technical-layman relationship is formal and perhaps idealized, and that the outcomes are indeterminate. While sick persons are not held responsible as they are when they are well, neither are they treated in the same way as they were when they were well; for some this differential treatment means inferiority and appears to be related to the dependency situation they find themselves in. Some patients may reject the designation by rejecting the illness. Adding to the configuration of inferiority is the formal nature of the technical-layman relationship and the idealization of this relationship. Individuals who expect from the doctor the intimacy of a friend or fellow-worker, and at the same time omniscience, are going to be

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disappointed in the universalistic aspects of the medical profession, and in the human failings of the practitioner. This latter difficulty, of course, overlaps with the third aspect of difficulty considered here—the indeterminacy of the outcomes. No one knows whether the patient will get well, nor when he will be dismissed from the hospital. In fact, even if the doctor has indicated his inability to determine the length of treatment, the patient may interpret this as failure to be taken into the confidence of the doctor, and in return refuse the doctor cooperation.

The patient in the hospital. Two aspects of the difficulties encountered by patients in the hospital are the intimacy of patient-to-patient relationships and the bureaucratic, regulatory nature of the hospital set-up. While some patients are isolated, most of them experience ward-life where privacy is unknown and where the rate of interaction is frequent. Other patients also are sick and demanding, and their needs for sociability, for comfort, and encouragement must be recognized and met mutually as well as ignored at other times. Some techniques for handling interpersonal relationships are essential.

The hospital may be characterized as a special case of the ideal-type set up by Weber—the bureaucratic structure. The patient is in a unique position as compared with the functionaries in industrial organizations, for while patients are enjoined to be "satisfied" with the services of the organization as if they were customers, they are at the same time urged to "cooperate" as an integral part of the

production aspects of the organization. When considered a member of the organization, the patient is placed at the bottom of the status hierarchy. Information may be obtained concerning the patient's condition by any other member of the status system before it is given to him. Even the lowest technician or aide may have some knowledge that the patient is to be approached for surgery before he himself does. Additionally, the demands upon the patient as a low status person are great. The rules are strictest at this level, as well as more numerous and specific, and it appears that the patient is asked to make the greatest effort to regard his obligations in other role relationships as subservient to those of his role as a member of the bureaucracy. And this in spite of the suspension of rules which the role of the sick person is supposed to provide.

These inter-relate.—It should be noted that the five aspects of the patient—doctor relationship and the hospital structure selected out above as areas of potential difficulty around which problems of equilibrium may center, do not function independently of each other. For example, the mutual trust and intimate nature of the doctor-patient relationship are potentially threatened by the additional regulations imposed on the patient by the hospital, the authority behind these rules being sometimes confused with that of the doctor. Also, the communication gap between patient and doctor, which exists as a result of the patient's needing professional technical help, may be increased by the existence of status levels in the hospital. The doctors, while at the service of patients, have positions in the upper level, with commensurate power and prestige.
To summarize.—Patients hospitalized for tuberculosis must, on the basis of past experiences, present attitudes, and information, cope with the following: the inferiority-dependency implications of the illness designation, the formality of the technical-layman relationship, the indeterminacy of the end results, the intimacy of patient-to-patient relationships, and the bureaucratic, regulatory nature of the hospital set-up. We expect that if all patients reacted to these aspects of the situation in the same way, either all would stay or all would leave. But since they do not, we postulate specific ways in which their behavior is predisposed through past experience, present attitudes and information. In an attempt to answer the earlier question of why some patients under difficult circumstances remain to complete treatment, we shall postulate the type of responses conducive to staying.

Regularly discharged patients have been able to handle the inferiority-dependency aspect of the illness label.—First, they have been able to accept the fact that they are sick people in need of help, not rejecting the diagnosis, and that their illness does make them different from what they are when functioning as well members of society. Second, they are able to keep from internalizing responsibility—they do not feel that their own failures are responsible for their disease nor that tuberculosis is a punishment for their past "sins." It follows that they do not feel that others will treat them as inferior because of their illness. It is to be expected that this latter characteristic is in part also a result of a better knowledge of their disease. We expect that this type of patient has more
reliable information about tuberculosis, that his knowledge of it has been derived from more adequate sources such as formal education rather than from superstition and folklore. Perhaps this type of person is to be found less frequently in the end sibling positions during childhood and has not felt discriminated against by parents. In terms of present attitudes, the inferiority aspect of other designations and situations is not likely to be overstressed. The health of this individual appears to be viewed more probably by himself as average or poor, since he does not feel compelled to reject the illness designation or to overemphasize health.

Regularly discharged patients have accepted the terms of the technical-layman relationship. They do not resent the distance which training and technical information has put between them and doctors, or other professionals. They may either accept the decisions of the trained person as being ultimate or they may question sufficiently to have a better understanding of their situation. If this type of person has a desire to relate to the expert in any particularistic personal way, he does not feel injured or discriminated against when he discovers that this is impossible. He is not likely to conceive of the technically competent person as omniscient and omnipotent, nor as a "fake" and one who could easily be replaced by the layman (himself); he thinks of him as very similar to other persons performing a job. Thus it is to be expected that this type of person has some knowledge of what the technically trained person can reasonably be expected to do; his formal education has extended to the point where he has some basis for correctly evaluating such persons. It is also
to be expected that his background experiences were such that he has had sufficient reason for trusting technically trained persons—that his family had sought for help before being in dire need and viewed such individuals as advisors to be called upon before the situation became desperate.

Regularly discharged patients believe that long term goals are possible, and that there is a relationship between getting well and going to the hospital. They are more interested in knowing what to expect of a new event in their lives and will seek information from reliable sources. This characteristic too is expected to be related to number of years of school completed, and perhaps age at leaving home, as well as present age.

Regularly discharged patients are relatively undisturbed by the regulatory aspects of the hospital structure. This type does not perceive regulations as arbitrarily imposed upon individuals by more powerful persons, and does not feel powerless to do something about them. In fact, he sometimes seems to enjoy getting around them, and seldom leaves a situation in order to avoid unpleasant rules. It is to be expected that punishment for disobedience was usually explained by parents, and that on the job he derived his information about the rules from the person in authority, at his own instigation. It would also be expected that such individuals left their original homes with parental consent, and not specifically to escape parental authority or victimization. This would lead us to expect that age of leaving home is not early, at least not until school is completed.

Regularly discharged patients are capable of establishing
good interpersonal relationships with other patients in the hospital. --

We would expect such individuals to perceive the social world as a rather warm one, peopled with individuals ready to help and who for the most part lack any hostile motivations. They do not need to submit to other people, manipulate them, or avoid them; they feel comfortable with others. It is to be expected that the life experiences of such individuals included a relationship of confidence with both parents, and especially with the mother, an attitude of reasonableness in the manner of punishment meted out by parents, and a feeling that parents are attached to their children. It is to be expected that this type derives his source of information about the behavior of other individuals from observation and introspection as often as from more remote sources, such as popular psychology, movies, or reading.

With respect to the expected behavior of individuals in the role of hospitalized tuberculosis patients, generalizations about bureaucracy, interpersonal relationships and inferiority designations may be found in the sociological literature.

On bureaucracy. -- Gouldner[49] studying red tape as a "social problem" raises the question of why it is that the very same procedures or practices which one group may characterize as red tape may be viewed by another group as deserving no invidious label. He suggests that red tape involves phenomena of two orders: (1) the perceiving individual with a given frame of reference, comes into some relationship with (2) objective, perhaps bureaucratic, practices or behavior

patterns. The frame of reference of the individual who attributes "red tape" to situations is characterized by Gouldner as having an inadequate "substantial rationality," (Mannheim's term for intelligent insight into the interrelations of events in a given situation), as having a sense of powerlessness, as being suspicious and unable to defer gratifications, as harboring resentment, and as being conservative politically and economically. He concludes that "a full analysis of the social roots of the red-tape-sensitive frame of reference must link up with the phenomenon of alienation." 50

On interpersonal relationships.—Adorno, 51 with the major hypothesis that political, economic, and social convictions of the of the individual form a broad coherent pattern, and that this pattern is an expression of deep lying trends in his personality, characterizes the anti-democratic personality as prejudiced, conservative, and ethnocentric. The irrational qualities in these personality traits are suspected of deriving from interrelationships of individuals with their families:

Prejudiced subjects tend to report a relatively harsh and more threatening type of home discipline which was experienced as arbitrary by the child. Related to this is a tendency apparent in families of prejudiced subjects to base interrelationship on rather clearly defined roles of dominance and submission in contradistinction to equalitarian policies. In consequence, the images of the parents seem to acquire for the child a forbidding or at least a distant quality. Family relationships are


characterized by fearful subservience to the demands of the parents and by an early suppression of impulses not acceptable to them.\footnote{52}

Feelings of victimization, submission to parental authority, orientation toward power and contempt for the allegedly inferior and weak were found in the typically prejudiced person. Frenkel-Brunswik attributes the reinforcement of the anti-weakness attitude to the fact that the individual's helplessness as a child was exploited by his parents. Prejudiced individuals thus tend to display "negative identification" with the weak along with their positive though superficial identification with the strong. She concludes that the type of independence expressed toward the parents by unprejudiced subjects, on the other hand, recurs in their attitude toward social institutions and authority in general, and they more easily express disagreement without fear of retaliation. The prejudiced subjects more often express hostility toward weak objects of aggression rather than the original or causal object. In the chapter on "Sex, People, and Self Seen Through the Interviews," she concludes that in spite of repeated assertions of independence, prejudiced individuals display strong feelings of dependence, passivity, helplessness, and sometimes even self-contempt. While we do not attempt to relate the irregularly discharged patient to the prejudiced person on a one-to-one basis, this analysis of the origin of inter-personal difficulties encountered by prejudiced individuals may apply to the individual who has difficulty in the authority-submission relationship to the doctor.

\footnote{52}{Ibid., chap. xxix, ["Parents and Childhood as Seen Through the Interviews," E. Frenkel-Brunswik] pp. 337-389.}

\footnote{53}{Ibid., chap. xi, [E. Frenkel-Brunswik] pp. 390-441.}
On inferiority labels.—With respect to the reactions of individuals to occupying statuses with inferiority designations we have a large literature. Some of the more pertinent references are listed here. Bingham Dai\(^{54}\) attempts to analyze personality problems of Negro children in American culture. Kurt Lewin\(^{55}\) discusses "reasons" for Jews running away from things Jewish as a general phenomenon which has its parallel in many underprivileged groups. Lewin describes the dynamics of self-hatred as involving certain expectations and goals for the future on the part of individuals, which are perceived as impeded by belonging to a group. This, he says, leads to a tendency to set apart the self from the group. The frustration of future plans by the necessity of spending a year or two in the hospital as the result of being tuberculous need not be documented. The greater part of patients falling in an age group to whom upward mobility is important, these patients often find themselves unable even to maintain their present social position. They may well have reason for desiring to flee things "tuberculous."

Davis and Dollard's thesis is that caste has its effect upon the self-image that the child forms.

We know that effective learning in these fields demands continual impulse-control, and that such learning must therefore be reinforced by rewards which are proportionate to the effort and renunciation demanded of the learner. It is the prime function

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of the caste system to withhold these rewards from Negro children.  

That Davis is speaking of learning by the child need not obscure the fact that inferiority-designations are destructive to any individual whose self-image is already negative. It is undoubtedly more difficult for one who devalues himself to forgo impulse-gratification of the kind demanded by hospitalization.  

Hypotheses

From these expectations of the way in which the five aspects of tuberculosis hospitalization will be met by regularly discharged patients and the manner in which this reaction has been previously determined, it is possible to attribute to the irregularly discharged patient the opposite reactions and experiences. This type of characterization could be dangerous, since "irregular discharge" may or may not be the converse of "regular discharge" and since both the regularly and irregularly discharged "patient" are ideal types, which do not exist in actuality. The characterizations are made, however, for purposes of analysis, and as such may prove useful. It is only necessary to recall the above warnings and to consider their implications, below.


57 J. Reusch, "Social Technique, Social Status and Social Change in Illness," Personality in Nature, Society, and Culture, ed. by C. Kluckhohn and H. A. Murray (New York: Knopf, 1953), chap. x, pp. 123-136. He advances the hypothesis that change (here represented as adaption to the hospital) is accomplished more successfully by the individual who has a backlog of diversified responses to fall back upon, and when the number of cues and responses which the new setting has in common with the old is great.
First, the various aspects of the total configuration may be of varying importance to individuals. To illustrate: the patient-doctor relationship may be so predominant that the indeterminacy of the outcomes does not substantially affect stay-quit responses. Again the inferiority-dependency aspect may weigh upon a patient so heavily that even a satisfactory patient-doctor relationship could vitiate the "appropriate" or "stay" response. There is no way of speculating ad hoc as to the relative importance of each aspect entering into the stay-leave criteria.

Second, it seems possible that even where all aspects of the pattern are conducive to staying, there will be distortions of the stay-leave responses. It appears likely that patients who are predisposed to staying but who enter the hospital reluctantly and only because of unfavorable circumstances in the home, such as small grandchildren living there, leave when the situation is favorably remedied. For other patients who would be predisposed to leave, there is no alternative to remaining in the hospital; there are no relatives to care for them, getting a job is impossible, and there is no money. In other words, while the congruence between requirements of a role and an individual's readiness for that role appears to be a useful framework within which to seek differences between regularly and irregularly discharged patients, it makes no pretense to being the only or the most comprehensive theory. For example, the external circumstances of the individual may be such that other role obligations preclude fulfilling the patient role as described above. With this in mind, our rationale leads to the following hypotheses to be tested:
I. There will be no significant differences in predisposition to complete hospitalization successfully between individuals who characteristically perceive interpersonal relationships as involving a large element of exploitation, isolation, and victimization, and those who do not.

II. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically view the layman-technician relationship with mistrust and suspicion and those who do not.

III. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically resent the inferiority-dependency aspect of the illness designation and those who do not.

IV. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically are troubled by the indeterminacy of outcome and those who are not.

V. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically have difficulty with the regulatory aspects of society, and those who do not.
CHAPTER III
PROCEDURES

The hypotheses stated in the last chapter were partially derived from theory, and partially obtained from a cursory examination of records of eighty patients discharged from Benjamin Franklin Tuberculosis Hospital, between January and March 1953, and from personal interviews with twenty of these patients. To test these hypotheses adequately, empirical data had to be obtained and analyzed.

The design. — It is desirable to keep in mind the two-fold purposes of this study while outlining the procedures, for while we were hopeful of devising an efficient predictive instrument, we also recognized that a rejection of the null hypotheses under adequate conditions would help to explain the behavior under study. Horst aptly states the relationship between the two goals, as follows:

In social science, successful prediction may sometimes be made in the absence of adequate explanation. However, if explanation is adequate, prediction is always possible.58

For this reason, we have not merely followed the prediction formula,59 but we have attempted to establish relationships of a logical as well as a statistical nature between the behavior to be predicted and the indicators, or in other words, between the effect


59Ibid., p. 4. See the basic steps in the construction and application of a predictive instrument.
and the cause or causes.

The following description of the design of this ex post facto, effect-to-cause type of experiment to test the hypotheses will take note of limitations of this type of design.

Collecting the Data

The Sample.—The first problem, of a more or less practical nature and around which many of the compromises to good design centered, was to determine the universe of study, and to select the sample. Obviously all tuberculosis hospitals in the United States, private, city, county, state and veterans administration hospitals, constitute a universe. Located in Franklin County are two hospitals—Benjamin Franklin Tuberculosis Hospital, and The Ohio State Tuberculosis Hospital.

Benjamin Franklin Tuberculosis Hospital is a county hospital with four hundred beds for all ages and all types of tuberculosis patients, although most of the cases are pulmonary tuberculosis. The average length of stay for 190 patients, including transfers and maximum benefits, regularly discharged during 1953 was 434 days; for 149 irregularly discharged during the same period of time the average stay was 196 days. Patients enter the hospital voluntarily, although sometimes at the insistence of the health department, and they may leave in the same manner. For a brief time the hospital maintained a "locked ward" where recalcitrant patients could be isolated under public health law. The present administrator is unsympathetic with such measures, and he discontinued the isolation ward shortly after
he took office in 1950. In 1953, 189 patients, including transfers, or 55 percent of the total 339 patients discharged alive were discharged with medical advice, the remaining 45 percent being against medical advice. Because of the availability of the hospital to the researcher, and because the percent of medically unauthorized discharges is so near to the general pattern for the country as a whole, this hospital was chosen.

At the Ohio State Tuberculosis Hospital the average length of stay was estimated by the director to be three months for all patients since patients are sent here for surgery only, and are released to hospitals in their county of residence or to their homes for the recuperation period. This situation is also complicated by the fact that patients are removed from their homes by great distances in some cases, and that they come from isolated rural communities. Benjamin Franklin, on the other hand, while it admits some patients from Kentucky, West Virginia and southern Ohio who have recently migrated to Columbus, draws most of its patients from Columbus and the surrounding communities. Patients, therefore, are not far from their immediate homes and families, and they are somewhat more homogeneously urban in their value orientation.

The sample was, in effect, the total universe of patients having left Benjamin Franklin between the years of 1951 and 1953 inclusive, except for the patients studied in the pretest, the transfers, the deceased, patients not diagnosed as having pulmonary tuberculosis, patients under fifteen years, and those known to be too
confused or too old to make good respondents. During the years 1951, 1952, and 1953 there were 789 live discharges from the hospital. (See Table 1.)

### TABLE 1

**DISCHARGES FROM BENJAMIN FRANKLIN TUBERCULOSIS HOSPITAL 1951-1953**

<table>
<thead>
<tr>
<th>Discharges</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulars</td>
<td>67</td>
<td>152</td>
<td>169</td>
<td>388</td>
</tr>
<tr>
<td>Irregulars</td>
<td>124</td>
<td>128</td>
<td>149</td>
<td>401</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>191</td>
<td>280</td>
<td>318</td>
<td>789</td>
</tr>
</tbody>
</table>

Since these discharges represent some repeats and since the above criterion had to be met, and since some were used in the pretest, there remained in the total sample 480 discharged patients who could be included in the sample, 297 regularly discharged, 183 irregularly discharged. We suspect the loss in the irregular category is due to the number of second, third and fourth admissions in this group who would be counted as irregular discharges for each year in Table 1, but not as irregular discharged patients in Table 2. Only 410 persons could be reached, the remaining 70 individuals having either deceased since their release from the hospital, having failed to keep contact with the Health Department, or having claimed that TB was never diagnosed. Of the 410 whose mail was not returned, the actual number deceased, not diagnosed tuberculosis, etc. was not known.

To have enlarged the sample by reaching back into the years
before 1951 would have been possible but of doubtful practical value. There would have been greater losses due to deaths, increased loss of contact by the health department, and more repeaters. Additionally the administration had been changed, and length of stay was not comparable from year to year. The use of another hospital to increase the number of persons in the sample was considered, but the cost in time and money was prohibitive.

The criterion groups.—A primary problem in designing a study to test differences between patients discharged irregularly and those discharged regularly for purposes of prediction is determining the composition of the criterion groups. The hospital procedure is to classify as "regular" all patients whose leave has been authorized by the hospital, and to include in the "irregular" category those who sign their own release, French leaves or failure to return from passes, transfers to other hospitals, disciplinary discharges, and anything else not considered "regular." These definitions were used in this study except that patients who were transferred to other hospitals were omitted from the study entirely. The categories are sometimes referred to as stay-response group and leave-response group in lieu of

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**TABLE 2**

TOTAL NUMBER OF QUESTIONNAIRES MAILED AND RETURNED

<table>
<thead>
<tr>
<th>Discharges</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>Total</th>
<th>Lost</th>
<th>Delivered</th>
<th>Returned</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulars</td>
<td>50</td>
<td>94</td>
<td>153</td>
<td>297</td>
<td>31</td>
<td>266</td>
<td>132</td>
<td>49.6</td>
<td></td>
</tr>
<tr>
<td>Irregulars</td>
<td>57</td>
<td>54</td>
<td>72</td>
<td>183</td>
<td>39</td>
<td>144</td>
<td>62</td>
<td>40.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>148</td>
<td>225</td>
<td>480</td>
<td>70</td>
<td>410</td>
<td>194</td>
<td>47.3</td>
<td></td>
</tr>
</tbody>
</table>
regular and irregular discharges.

Ideally, only patients who had never been hospitalized before should have been included in either group in order to keep experiences associated with hospitalization controlled. Actually patients who had been hospitalized previously were included, for several reasons: because 61 of the 194 patients in the sample reported previous admissions; because for practical purposes prediction of probable outcome for patients admitted with a record of previous hospitalizations is very important; and because all patients were interviewed after hospitalization. Because of the small sampling N, however, it was not feasible to separate the groups for statistical analysis on the basis of previous hospitalizations.

Since length of stay appeared in the literature to be of great importance in the statistical frequency studies of differences between the two groups, control on this factor seemed desirable, at least in the extreme periods of time. The average length of stay for the stay-response group during the three year period under study was 14.5 months; for the leave response group it was 6.5 months. The justification for matching the groups on the factor "length of stay" is obvious in view of prediction design, since time is a component of the activity involved in hospital treatment, and "length of stay" is therefore an attribute of the stay or leave behavior.

Observing and recording.—It is obvious that the behavior of patients should be observed and recorded at the time of admission to
the hospital\textsuperscript{60} so that whatever predispositions are present at that time will not have been affected by later contingency factors. The exigencies of time (a waiting period of three or four years would have been required to determine outcome for some patients), and the stipulations of the hospital (the administrator indicated a preference for data to be collected outside the hospital), however, prevented this type of design, and an ex post facto experiment was decided upon despite the obvious advantages of a projected design. Data on the patients were collected after they had left the hospital. In part this can be justified by the findings of Rorabaugh\textsuperscript{61} with respect to validity. On the other hand, while some of the questions were of the type that would appear to be little affected by the hospital experience, those relating specifically to doctors and nurses, etc., would probably be most influenced by recent experiences with specific doctors and nurses, rather than generalized opinions about these kinds of people. Two questions were asked about attitudes before and after the hospital experience to arrive at some indication of change in attitude. The loss of rigorous control through ex post facto design, however, cannot be ignored.

In the preliminary stages of the study, case records in the files of the Social Service Department at Benjamin Franklin Hospital were examined. These records contained the admission data (see Appendix I, Part A) as well as a written account of whatever contacts had been made with the patient by the social worker. Due to under-

\textsuperscript{60}\textit{Ibid.}, p. 45. \textsuperscript{61}\textit{Supra}, chap. 1, p. 11.
staffing, however, the practice at Benjamin Franklin is for the social worker to see the patient only when the patient requests help or when some irregularity requiring extra-medical service has been reported by a member of the medical staff. For this reason interviews with patients by social workers are selective, and case records are incomplete.

With the help of the three social case workers who had been working with the patients, a list of thirty patients, half regularly discharged and half irregularly discharged, whose situations and "reasons" for leaving or staying at the hospital appeared to be diverse, was arrived at. These patients were mailed a letter, with a return postal card on which they could specify a convenient time and place for an interview (See Appendix I, Parts B and C). This letter was mailed out under the letterhead of the Franklin County Tuberculosis Association. Thirteen patients responded, and seven more were contacted by telephone; none of these refused to be interviewed.

All patients, whether discharged regularly or whether discharged against medical advice appeared to be anxious and eager to talk about their illness and about their reaction to the hospitalization. There was no resistance to the questions concerning personal background. The interview was unstructured, the interviewer following somewhat an outline (Appendix I, Part D), but allowing the respondent to express himself freely on any subject, and taking the subject in order of appropriateness to the ex-patient's own comments.

With this basis for locating differences between the two groups of patients, a pretest questionnaire (Appendix I, Part F) was drafted
mailed to a random sample of one hundred (55 regular and 45 irregular) former patients at Benjamin Franklin Hospital, discharged between the years 1951 and 1953. A follow-up postal card was mailed ten days later. Based on the total one-hundred, including those who were never contacted because of incorrect address, or death, the return on this mailing was 12 percent, comprised of thirteen regularly discharged patients and nine irregularly discharged. The questionnaire was then split into halves, (Appendix I, Part I and J) since it was believed that some of the questions might be threatening, and mailed to fifty more patients (equal numbers). The return on the background and information, or non-threatening, half of the questionnaire was six (one regular and four irregulars) and on the attitude, or threatening, half, four (three regular and two irregular), constituting a 20 percent return. Responses to the questions were tabulated, and those showing no differences in direction (the N was too small to attempt statistical analysis) were discarded. A few new questions were added, especially relating to the reaction to tuberculosis and to the hospital, since their need was indicated on the second pre-test. The items related to the hypotheses are listed below by numbers, which correspond to the item numbers in Appendix II, Part A.

For Hypothesis I, that there will be no significant differences in predisposition to complete hospitalization successfully between individuals who characteristically perceive interpersonal relationships as involving a large element of exploitation, isolation, and victimization, the items are 24, 25, 40-3, 40-5, 43-3, 49, 58, 61,
For Hypothesis II, that there will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically view the layman-technical relationship with mistrust and suspicion, and those who do not, the items are 10, 11, 13, 29-1, 29-2, 29-4, 29-5, 29-6, 36-1, 36-2, 36-3, 36-4, 36-5, 36-6, 36-7, 36-8, 40-4, 46-2, 46-3, 56, and 65.

For Hypothesis III, that there will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically resent the inferiority-dependency aspect of the illness designation, and those who do not, the items are 7, 8, 9, 14, 17, 29-3, 33-2, 33-6, 40-1, 40-2, 49, and 58.

For Hypothesis IV, that there will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically are troubled by the indeterminacy of outcomes, and those who are not, the items are 10, 11, 13, 46-1, 66, and 71.

For Hypothesis V, that there will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically have difficulty with the regulatory aspects of society, and those who do not, the items are 28, 33-4, 43-2, 43-4, 46-4, 46-5, 55, 64, 65, 66, and 70.

Analyzing the Data

Matching—Using the criterion of successful completion of hospitalization, the total sample was separated into two groups.
Frequency tabulations were made for the responses to the following items on the questionnaire: length of stay, age at admission, sex, and race. Individuals from both groups were matched on these factors. After matching, fifty-five individuals remained in each of the matched groups. The matched group of irregularly discharged patients was designated Experimental Group A; the matched group of regularly discharged patients was called Control Group B. Since there were twice as many regularly discharged patients as irregularly discharged patients in the original sample, sixty-nine individuals from the former group remained after the matching procedure was completed; this group became an unmatched control group or Control Group C. It was to be used as a check on the findings for the two matched groups.

The tests of significance.—Frequency distributions for all items were obtained and chi squares and critical ratios of proportions were used to test the differences between the three groups. Items with differences statistically significant at or above the five percent level were accepted. In this way the hypotheses were tested.

Items significant beyond the five percent level yielded probability statements concerning predisposition of individuals in each group to stay or leave, i.e., the proportion of respondents in each category. However, since the extent to which these items represent independent events is unknown, it was impossible to combine individual probabilities mathematically into a probability score. Instead, therefore, of attempting to combine the individual probabilities, scores for each patient were derived from the significant items
according to a method used by Moran. These two indices thus derived served to select from the total group those individuals with a high probability of staying or leaving. Even though the size of the sample was small, it was decided to compute a probability statement that would take into account interdependent events. The method of the discriminative function as described by Kirby was used. Results of the two methods were compared.

Cross-Validation

Prediction for the original group of 1951-1953 discharges being spuriously high due to the construction of the indices from the very cases being predicted, the indices were cross-validated on a sample of 1954 discharges. As Horst points out:

Most "prediction studies" end without ever attempting to predict. It is of little importance to be able to show that a prediction formula works well on the original group from which it was developed. The really important thing is to find out how well it works on other groups. No prediction study may be considered complete until the instruments and formulas have been tried out on other groups and found to hold up satisfactorily.

The 135 patients discharged from the hospital between January and July 1954 (See Table 3) were mailed questionnaires containing items in the predictive instruments, and the same type of indices and probability statements obtained by the two methods were arrived at. The

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63 See Horst, op. cit., pp. 104-106. He shows that seven sets of weighting yield differences in efficiency of prediction. The drop in efficiency is especially great using multiple regression weights on a small sample.


65 Horst, op. cit., p. 115.
degree to which the instruments predicted on the second sample was then determined.

**TABLE 3**

CROSS-VALIDATION QUESTIONNAIRES MAILED AND RETURNED

<table>
<thead>
<tr>
<th>Discharges</th>
<th>Mailed</th>
<th>Not Delivered</th>
<th>Delivered</th>
<th>Returned</th>
<th>Percent Return</th>
<th>Not Usable</th>
<th>Usable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>79</td>
<td>15</td>
<td>64</td>
<td>37</td>
<td>57.7</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>Irregular</td>
<td>56</td>
<td>13</td>
<td>43</td>
<td>15</td>
<td>34.9</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>135</td>
<td>28</td>
<td>107</td>
<td>52</td>
<td>48.6</td>
<td>6</td>
<td>46</td>
</tr>
</tbody>
</table>
CHAPTER IV

FINDINGS: TESTS OF THE HYPOTHESES

The Statistical Analysis

To test the hypotheses the patients who left with medical advice were matched with those who left irregularly on the following four variables: length of stay in the hospital, age at admission, sex, and race. After matching, fifty-five remained in each of the matched groups designated as Control Group B—with medical advice, and Experimental Group A—against medical advice. (See Appendix III, Table 1.) For eleven individuals from both groups there were insufficient background data to match them. There were sixty-nine additional regularly discharged persons who were not matched and who are here presented as an Unmatched Control Group C. Statistics for the three groups on the four variables are shown in Table 4.

Group C differs from the other two groups in that the mean length of stay is longer, the proportion of females higher, the proportion of colored higher, and age at admission slightly higher. The mean length of stay for Group C is 13.57 months as compared with 7.36 months for Groups A and B. These differences are not statistically significant, however, except for mean length of stay. The findings for these variables in this study may be compared with the results of
TABLE 4

COMPARISON OF VALUES FOR THE THREE GROUPS ON LENGTH OF STAY, AGE, SEX AND RACE

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 55</td>
<td>N = 55</td>
<td>N = 69</td>
</tr>
<tr>
<td>Length of stay:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>7.36</td>
<td>7.36</td>
<td>13.57</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>4.58</td>
<td>4.58</td>
<td>7.55</td>
</tr>
<tr>
<td>Age at admission:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>35.27</td>
<td>35.27</td>
<td>35.69</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>13.01</td>
<td>13.01</td>
<td>12.34</td>
</tr>
<tr>
<td>Sex:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>30</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>Females</td>
<td>25</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Race:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>43</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>Colored</td>
<td>12</td>
<td>13</td>
<td>24</td>
</tr>
</tbody>
</table>

Based on Appendix III, Tables 2, 3, 4, 5.

Previous research. According to Johnson,66 Speth,67 and Tollen,68 age at admission is not a significant factor, but Moran69 found it significant at the .05 level for his sample, as did Brewster.70 Tollen found significant differences when age and marital status were considered in combination.


There are no differences between the two groups on race, according to the Speth, Wynne, and Moran studies. On sex, Brewster found little difference between the two groups; Johnson shows slight differences, but does not test for statistical significance.

Tollen found that the irregular discharge rate increased as length of stay increased up to about four months, at which time it was sixty-two percent. Tedesco,\textsuperscript{71} in his study of one hundred irregular discharges from Castle Point Veterans Hospital, indicates that the majority of irregular discharges occurred within the first five months of hospitalization, fifty-seven percent of the patients leaving within the first six months. These figures were substantiated by Bobrowitz\textsuperscript{72} and by Wynne.\textsuperscript{73}

No significant differences on previous admissions were apparent for the three groups in the sample for the present study (See Appendix III, Part B, Table 6). This contradicts the findings of Tedesco and of Moran.

Tests of significance.—By matching groups A and B, we sought to assure that whatever differences are discovered between the two

\textsuperscript{70}A. W. Brewster and R. C. Fletcher, "Study of Patients Discharged from Tuberculosis Sanitoria," \textit{Extract from Public Health Reports}, Vol. LXIII (April, 1948).


\textsuperscript{72}I. D. Bobrowitz, "Why They Leave Against Advice," \textit{N. T. A. Bulletin} (April 1953).

groups exist independently of differences in length of stay, age at admission, sex, and race. Since the control groups differ in length of stay, we expect that other differences between Control Group C and Experimental Group A will be greater than those between Control Group B and Experimental Group A. These expected differences are based on the assumption that patients who are required to remain in the hospital for a longer period of time, and who do so successfully, are more like the "ideal" patient postulated in Chapter II, than patients who endure hospitalization successfully for a shorter period of time.

To test differences, chi square analysis of the three groups was performed for each item. Critical ratios for differences between Group A and Group B were also computed. Differences were considered significant at or beyond the .05 level.

Hypothesis I.—Among the twelve items designed to test Hypothesis I, four yielded differences between the three groups at or beyond the .05 level:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>X²</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>14.36</td>
<td>&quot;What was your marital status when you last went into the hospital?&quot;</td>
</tr>
<tr>
<td>40-3</td>
<td>10.32</td>
<td>&quot;I often feel I can never please the people I live with no matter how hard I try.&quot;</td>
</tr>
<tr>
<td>43-5</td>
<td>9.59</td>
<td>&quot;People today are more inclined to look out for themselves at the expense of others.&quot;</td>
</tr>
</tbody>
</table>

74 In none of the studies in which marital status was considered—Moran, Speth, Tollen, Weinberg, Wynne—are significant differences found between the two groups. Tollen discovered differences when marital status was combined with age.
Item Number $X^2$ Item

70 9.63 "What have you usually done in the past when you had disagreements with your boss?"

Since the chi square analysis only indicates differences existing between the three groups, critical ratios were computed to determine whether there were additional differences between any two of the three groups on items which did not have significant differences between all three groups. Significant critical ratios for Hypothesis I are:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Critical Ratio</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>B&amp;C:2.14</td>
<td>&quot;In general how do you feel about the way your parents treated you (and the other children if there were any) when you were a child?&quot;</td>
</tr>
<tr>
<td>63</td>
<td>A&amp;B:1.96</td>
<td>&quot;Have you been married more than once?&quot;</td>
</tr>
<tr>
<td></td>
<td>A&amp;C:2.10</td>
<td></td>
</tr>
</tbody>
</table>

Items significant at or above the .05 level were in the expected direction, except for items 43-5, and 58. We had expected irregularly discharged patients to feel that "people today are more inclined to look out for themselves at the expense of others" in accordance with their own feelings of exploitation. Actually the regularly discharged patients in the matched and the unmatched groups agreed with this statement more often than the other group. On item 58 the reversal in direction between Groups B and C occurred only in one category. The matched control group expressed feelings of favorable treatment by their parents more frequently than the unmatched control group. In general, the direction of differences between Groups B and C were not consistent, neither were they often significantly great. The
direction of differences between Groups A and B and Groups A and C were as expected on most items, even where differences were not statistically significant.

Hypothesis II.—Among twenty-one items designed to test hypothesis II, nine were not significant. Seven items had significant differences between the three groups at or above the .05 level:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>$X^2$</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-5</td>
<td>14.03</td>
<td>&quot;Nurses are devoted to their duty.&quot;</td>
</tr>
<tr>
<td>36-2</td>
<td>14.06</td>
<td>&quot;Doctors tend to act superior to their patients.&quot;</td>
</tr>
<tr>
<td>36-3</td>
<td>49.80</td>
<td>&quot;Doctors today seem to be more interested in money than in their patients.&quot;</td>
</tr>
<tr>
<td>36-4</td>
<td>12.88</td>
<td>&quot;Doctors ought to be respected by everyone.&quot;</td>
</tr>
<tr>
<td>36-5</td>
<td>20.88</td>
<td>&quot;It is difficult to find a doctor you can really trust.&quot;</td>
</tr>
<tr>
<td>36-6</td>
<td>13.46</td>
<td>&quot;Doctors cannot be expected to tell their patients much since they have so much technical knowledge that only another doctor could understand.&quot;</td>
</tr>
</tbody>
</table>

When critical ratios were computed for those items not showing significant differences between the three groups, one item displayed differences between both Groups A and B and Groups A and C at the .05 level; two, a difference between Groups A and B; two, a difference between Groups A and C; one, a difference between Groups B and C:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Critical Ratio</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>B&amp;C: 2.56</td>
<td>&quot;If you were told (how long you might have to stay at the hospital), did the doctor tell you correctly or incorrectly in terms of how long it actually took?&quot;</td>
</tr>
</tbody>
</table>
Item  Number  Critical  Ratio  Item

29-4  A&B: 2.76  A&C 2.35  "Nurses have a great deal of technical knowledge."

36-7  A&B: 2.26  "Doctors ought to tell their patients the truth no matter how bad it is."

46-2  A&B: 2.00  "Young, unmarried women with college degrees teaching in our public schools know less about handling children than the mothers who have learned from experience with their own children."

46-3  A&C: 2.27  "An awful lot of people are being pushed around by so-called experts."

65  A&C: 2.09  "What was the last grade of school that you completed?"

All significant differences are in the expected direction except the difference between Groups B and C on Item 11, which is in the opposite direction. Other differences between Groups C and B, while not significant, reflect this tendency.

**Hypothesis III.**—Among fourteen items designed to test hypothesis III, only two are significant at or beyond the .05 level:

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>$X^2$</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td></td>
<td>17.15</td>
<td>&quot;What was your occupation when you were admitted to the hospital the last time?&quot;</td>
</tr>
<tr>
<td>40-2</td>
<td></td>
<td>13.25</td>
<td>&quot;I felt a difference in my family's attitude toward me after I had TB.&quot;</td>
</tr>
</tbody>
</table>

Of the remaining twelve items not having significant chi squares, one had a significant difference between both Groups A and B and Groups A and C:

75 Moran found differences on occupation.
Hypothesis IV.—Of the six items designed to test Hypothesis IV (one was omitted in the typing of the schedule, leaving five), none showed significant differences between the three groups, or between the three groups at or above the .05 level.

Significant critical ratio items are:

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Critical Ratio</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>11.45</td>
<td>&quot;Do you think people with TB should ever be forced to go or stay in the hospital?&quot;</td>
</tr>
<tr>
<td>33-4</td>
<td>20.21</td>
<td>&quot;Conditions could be improved if some of the rules were not so strictly enforced.&quot;</td>
</tr>
<tr>
<td>55</td>
<td>17.41</td>
<td>&quot;How old were you when you left the home of your original family on your own?&quot;</td>
</tr>
<tr>
<td>57</td>
<td>9.99</td>
<td>&quot;How did your family feel about your leaving home?&quot;</td>
</tr>
<tr>
<td>70</td>
<td>9.63</td>
<td>&quot;What have you usually done in the past when you had disagreements with your boss?&quot;</td>
</tr>
</tbody>
</table>

Speth found an inverse relationship between education and irregular discharge.
Differences on other items were in the expected direction, except for those between Groups B and C.

To summarize—On twenty-five of the fifty-seven items relating to the hypotheses, there are significant differences between Group A and/or Groups B and C. Nineteen of these items show differences between Groups A and B. All but four of these nineteen items also differentiate between A and C. Six other items yielding differences between Groups A and C did not exhibit like differences between Groups A and B.

Nine of the fifty-seven items show significant differences between Groups B and C, six of which are also significantly different for Groups A and B and/or Groups A and C.

Over one-third of the items relating to Hypothesis I, II, and V, are significant at or above the .05 level. Group A tends to differ more from Groups B and C than B does from C. But there are instances where the responses of Group C fall somewhere between those of Groups A and B, although these reversed responses are significant in only two instances (Items 11 and 58), those being items of no general significance.

The null hypotheses to which significant items were related in the rationale, were as follows:

1. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically perceive interpersonal relationships as involving a large element of exploitation, isolation, and victimization, and those who do not.
2. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically view the layman-technically trained person relationship with mistrust and suspicion, and those who do not.

3. There will be no significant difference in predisposition to complete hospitalization successfully between individuals who characteristically have difficulty with the regulatory aspects of society and those who do not.

It is doubtful that the hypotheses can be rejected on the basis of the empirical results, since some of the items registering no significance seem essential to the total configuration which the hypotheses are meant to encompass. For example, "exploitation, isolation, and victimization" are not necessarily entailed in the five items for which significant differences are found in Hypothesis I; such emotional states might be imputed if some of the other items had been found to be significantly different.

The Case Records

Some examples from the interviews (both the preliminary interviews and those acquired in conjunction with the mailed questionnaire) and comments of former patients will be cited here to illustrate how these elements appear related in specific cases:

Mr. C., aged 59, white, separated from second wife, dishwasher. Caseworker's comments: never accepted diagnosis, frightened by hospital procedures, belligerent and demanding.

Mr. C., the oldest of his mother's and father's four children, was on his own at the age of fourteen years. He first informed
the interviewer that his parents died when he was twelve years old and later he said only his father had died. The father had been in an accident while working on the B & O Railroad and was pretty "mashed up" and the doctors thought that was what had caused his death. Later he said his mother had died only fourteen years ago. She had been married three times and had reared the five children of her first husband's first marriage and later had seven children of her own, four by his father and three from a later marriage. Mr. C's first job was as a farm laborer on a neighbor's farm in P., Kentucky, where he had been born. Mr. C. had attended school to the third grade; he left to work because it was necessary.

Mr. C. was asked whether doctors kept the patients informed of their illness and progress; he said that "it depended." He would have to answer "yes" and "no" to that question. (He drew his chair closer and acted as though he was going to be quite confidential.) Then he began to act out this situation, "Supposing this was the hospital and you was the patient and I was the doctor," describing the patient as "nervous and shaky" and needing to be protected from the bad news. But a strong man who has been saved could be told anything. This was the way he thought patients ought to be handled.

Throughout the interview the subject of religion recurred, since Mr. C. is a member of a Holiness Church, having been out of the "sinner's ways" for nineteen years. At one point the interviewer asked him about the religious services at the hospital. He thought they were nice but there was one he did not like. He was anxious not to offend me, but it was the Catholic service. (What about it didn't he like?) Well, it was different—for one thing the priest standing up there—and it says in the Bible only God can save, no other man. He explained to me that his church believed in the Bible for solving questions and that they had discussions of the sinfulness of the younger generation, this world being made up today of so many different people. But the government supports "drinking and so forth." The church members got up a petition and sent it to Washington, but it was ignored. There seems to be nothing to do but call the police when someone gets drunk and out of order.

Mr. C. talks about the number of friends he has. He can walk on the streets anywhere and have people come up to him and clap him on the back. He went to the dime store the other day and a woman there who hadn't seen him for a year and a half greeted him and asked him where he had been. It's always like that when he goes out. He talks about his fine relationships with his former boss (while he was a dishwasher) who was "a father" to him, and about his ideal relationships with the doctors—especially the one at the Health Department who upon Mr. C's insistence telephoned the hospital to reserve a bed and got him admitted immediately.
While Mr. C's early life history suggests a situation which might easily have resulted in feelings of exploitation, he expresses a desire not to admit to such feelings—as a result of belonging to the Holiness Church he is able to take everything calmly and to be "strong." He depicts his relationships with others as very satisfying, and as the kind in which he initiates behavior of which others approve. But he is somewhat ambivalent about people with power interfering with his satisfactory relationships with others (salvation)—the priest and the government specifically. Thus, the priest, a man who has the qualifications to approach the Diety, is suspected of getting in the way of a satisfactory relationship with the Diety; the government, which has police power to keep order, prevents the righteous from establishing a more perfect order. One suspects that the same mistrust of the doctor is present, because the doctor has knowledge and power which interferes with his salvation—i.e., to be approved of for his aggressive acts (such as the belligerancy which the case worker describes, or where in the role-taking situation he plays doctor). To conclude, Mr. C. appears to have difficulty with the regulatory aspects of society; these difficulties may stem from his early history of apparent insecurity and overwhelming victimization. He also appears to feel isolated and to be suspicious of the technically trained persons in our society.

Another example, one which involves less interpretation, is that of Mr. E., 33 years of age, white, truck driver, second marriage (first wife deceased), three children. From the case record it was learned that Mr. E's reason for signing his own release was his concern
about his wife and his children, two of whom were ill with fatal
diseases, and could not be cared for by the county since he was not
a resident. The case worker comments that Mr. E. felt guilty about
his part in the family's trouble, his arrest on a drunken spree in
Tennessee having occasioned the move to Ohio. She also noted that
Mr. E. was afraid of losing his controlling position in the family.

In the interview with Mr. E. he treated his walking out of
the hospital several times as a big joke, and he seemed to enjoy
the impression left on the hospital personnel as a result of this
behavior. Although Mr. E. did not relate his difficulties with
the law in Tennessee to the interviewer, he did tell about a
"mix-up" at City Hall which prevented him from returning to his
city job when he left the hospital before treatment was completed.
He expressed the opinion that people ought to be forced to go to
the hospital (his child contracted TB during one of the periods
in which he remained in the home), saying that "things seem
different after you have been through them," but later he thought
that "nothing could get him to go back to the hospital." Mr. E.
said he had an opportunity to go beyond the fifth grade in school
where he stopped, but he was "too onery." He says he "laid out"
almost every day, each time coaxing someone else to play hookey
with him.

Mr. E. was told by the doctors that he must have had TB for
about five years, but he doesn't believe it because logging is
a very hard job and he thinks he would have felt sick if he had
it and lost weight. Asked if anyone in his family had ever had
it, he said no, but the doctor still says his first wife died
of it. She was about seven months pregnant when the doctor
diagnosed it. Mr. E. did not tell the doctor, but he took his
wife to a chest specialist who said she did not have TB. The
doctor in Tennessee still says that's what she died of. He
describes his first wife as a "big, fat, healthy woman," which
is why he refuses to believe she had TB. He says this kind of
thing makes it difficult to put your trust in doctors.

In his parental family Mr. E. was the "baby" among four boys
and two girls. When he was two years old his parents separated
and his mother "stayed single" until he was about five. She
remarried and the family moved to Virginia where they lived
fourteen years with his stepfather, after which the mother left
him also. He lived with his mother until his first marriage at
the age of twenty. He worked as a manual laborer for logging
companies.

Turning now to a regularly discharged patient, Mrs. B.,
thirty-one years old, married at age sixteen, white, waitress, two children. Case worker's comments: Divorced while in the hospital. Did not express self freely.

Contrary to the social worker's opinion, Mrs. B. talked freely and frankly with the interviewer, volunteering the information about her divorce. She recalls her life as being untroubled—she has been happy and always had everything she wanted or needed. Even contracting tuberculosis and being divorced by her husband were not viewed by Mrs. B. as overwhelming burdens.

Her children were her first consideration in her decision to enter the hospital and her later decision to stay when her husband asked for a divorce ten months later. She had asked him to wait a few months hoping he would change his mind, but he would not and she felt that her children meant more to her than "chasing after" him.

Mrs. B. comes from a very closely knit family and reports that she and her husband and children all lived with her mother and stepfather and brother until very soon before her hospitalization. Her father had died six years previously and her mother had remarried. The family had been living in the neighborhood twenty-five years and Mrs. B. worked as a cashier at a restaurant owned by friends of her family. She especially enjoyed working there because this was the neighborhood in which she grew up and she knew everybody.

Mrs. B. attends the same church as her parents, and her children do too. She left school when she was in the tenth grade to elope with the boy next door. Her mother was expecting it as she had been dating him for years, but her father was "just sick about it." It took him months, but he eventually recovered from the shock.

Mrs. B. reported learning a lot about people in the hospital (She was particularly shocked by Negro-white romances.), and her complaints were in regard to the staff members who failed to treat individuals with special consideration rather than with patients whom she described as "having a lot of fun" together.

Another regularly discharged patient is Mr. K., male, Negro, forty-six years old, widower.

Born in Arkansas, Mr. K. came North with his mother when he was twelve years old. This was one year after his parents were separated because of his mother's determination to come North and his father's refusal. Mr. K. was the only child. His mother had been cooking in the home of the people who owned the small town in Arkansas and his father had worked on the railroad. Both
parents are alive and he heard from his father a few years ago. His mother lives in the city but he lived in a room alone after his wife's death.

In a nearby Ohio town Mr. K. went to school up to the first grade of high school when he "just got tired" of going to school and felt he "knew more than the teachers." He got along with them all right. He has been working ever since he was sixteen years old. (This included after school, so apparently he was retarded in school.)

Mr. K. consented to hospitalization only after much pressure from public health officials and when he was financially unable to support himself. He resisted because he "had never been in no hospital before."

Mr. K. thought he got along well with everyone in the hospital. He thought the nurses were nice. He was sick (feeling sick) only once and that was from a shot in the hip. The head nurse in the receiving ward impressed him especially. She told him upon his arrival, "You can't smoke, you can't chew, (He paused and laughed.) she kept layin' it on. Then she say, I'm tellin' you what I don't like on this floor." He said he "mind her just like she was my mother. She hard, but you know you gettin' better when you get out of her ward." He felt that the demands of the nurses and doctors were reasonable and that "You in there for them to help you and if you do as they ask you to do you get well." He often wondered about all those pills and if they were helping him but he said, "You the doctor--I don't know what's inside me." But Mr. K. thought the doctors were good about informing him about his condition and they showed him his x-rays and fluoroscopy. (He used terms and suggested that he was let in on decisions about treatment telling the interviewer the discussion concerning the "what was it--air in the lungs?" The interviewer suggested "pneumothorax," and he said yes and told her very seriously that they said if the fat in his chest wasn't heavy though to collapse the lung, air wouldn't help.)

He told a story, with some amusement, about his smoking on the ward of the strict head nurse (with the doctor's tacit approval) and of her attempts to catch him and his friendly denials--once when she smelled smoke, and once when she found butts in his urinal. He knew she knew and he blamed it on someone else jokingly. He seemed to think this was quite all right since he did not smoke to excess--only after a meal--and since the doctor had not prohibited it.

Mr. K's final comment was that the best thing for the patient is to "do as they tell you--take your medicine." He told of several fellows who didn't and put down their failure to recover to this. He said he told them he was "taking my medicine, 'cause I want out of here."

The four cases examined thus far have been reported on in
some detail in order that somewhat of a gestalt may be formed by the reader concerning the hypotheses of the study. No attempt has been made to generalize from these cases; their purpose is merely illustrative and they have been selected because they depict "whole" individuals and not because they are thought to be "typical" or representative. There follow some excerpts from some interviews which present more concise pictures.

Mr. D. was deaf in one ear from childhood and blind since adolescence. His wife left him after his diagnosis and his business was discontinued by the health authorities. Mr. D. expressed hostility toward everyone and felt cheated by the welfare agencies. He refused to accept the diagnosis and was resentful concerning the reporting by someone of his holding a job while receiving aid to the blind. Mr. D. remembered his father as being "as willing to beat him as look at him" and he left home at the age of fifteen against his parent's advice. His marriage was a failure due to his wife's drinking and running around. Mr. D. did not find fault with the hospital, although he was sure the doctors had conspired to keep him there when he was not ill.

Mrs. A. also refused to criticize any aspect of the hospital, except for one nurse with whom she had difficulty.

Mrs. A. was orphaned in infancy and she was worked in the fields of her sharecropping uncle until she was old enough to hire out as a maid for a wealthy family in a large southern city. Mrs. A. could not believe she had TB because she did "not have spots, like other people." She was frightened at the idea of being placed with TB patients. Mrs. A. (unlike Mr. D.) refused to admit she has problems or to blame anyone for her misfortunes even when the interviewer gave her an opportunity to do so. Neither did she admit she left the hospital against medical advice. She appears to have enjoyed being "taken care of" in the hospital—by former employers, by the doctor who arranged her transportation to the hospital, and in general, by God in whose hands she places herself.

Mr. R., on the other hand, complained vociferously about the hospital and everything concerning it.
According to Mr. R., patients were treated like bums; many of the ones who died were killed by the doctors; and TB is highly overrated. Mr. R. cited cases and generalized from them, and he quoted statistics based on his own observations. Unlike most of the regularly discharged patients who viewed the role of family and friends as all-important in getting well, Mr. R. expressed the opinion that getting well depended primarily upon the patient's own will to get well.

Mr. R. filed an industrial claim against his former boss (owner of a small print shop) and was surprised when this man became angry and permanently hired another man who had been replacing Mr. R. until his release from the hospital.

Mrs. Y. reported feeling ostracized by her family and friends when her TB was diagnosed, and even her mother refused to come to see her in the hospital.

The early home life of Mrs. Y. was recalled as very unpleasant, and she reported that she was often punished because her parents were angry at something else. Mrs. Y. had been divorced by her husband and at the time she was interviewed she was living in the home of another ex-patient who described Mrs. Y. as a "poor, bedraggled thing—like the stray pets" she used to bring home.

Most of the pictures of patients to be obtained from the interviews "fit" the hypotheses, which is to say that if the unique circumstances of each case are generalized, an abstraction similar to the "ideal" irregular patient of the rationale is derived. A few, however, do not. Two exceptions will be briefly commented upon:

Mr. N. appeared much more like the regularly discharged patients in most aspects than like the irregularly discharged patient constructed in the rationale.

Mr. N. reported a stable home life, leaving home after the completion of high school, traveling as a salesman, marrying at the age of thirty-five. His major concern appeared to be the "staff's attitude," which he described as one of disregard for the patient as an individual. (The Negro aides were the only staff members who treated patients with any consideration.) Mr. N. did not simply walk out of the hospital; while on leave he received the tacit approval of a specialist to continue
treatment at home, which he apparently has done faithfully. Mr. N. believed going to the hospital was the only course open to him in view of the danger to his son which his presence would have been.

Mrs. S. had a series of discharges before her last irregular one—two of these were irregular, one regular. The caseworker had described her as not very intelligent, rather attractive, unstable.

Mrs. S. was thirty-two years old and had been in and out of Benjamin Franklin during the last seven years of her life, her third child having been delivered in the hospital. Mrs. S. apparently did not have very favorable relationships with the other patients for she felt social pressures in the way of criticism, by the patients, and they were "harder to get along with" than the staff. The hospital personnel, too, disapproved when she became pregnant, but on the whole she envisages a very close relationship existing between herself and the doctors, especially the head surgeon with whom she felt quite intimate. Mrs. S. quoted conversations with this doctor in which he addressed her on an equal basis and asked her to tell other patients about her experiences in order to enlist their cooperation. Mrs. S. asked to have her child delivered at the hospital because she did not want to "go to a strange place." She felt that doctors at Benjamin Franklin knew her condition, and staying would enable her to avoid a "lot of red tape." Mostly, however, she wanted the "doctors who knew her" to take care of her.

The last time Mrs. S. returned to Benjamin Franklin she did so, in her words, because she was "having trouble with her husband and had no place to go" so she returned to the hospital. She would go back again if she needed to.

Mrs. S. was one of twelve children, and "next to the baby," a little boy. She was her father's pet—she "often slept in his arms, instead of mother," and she was sleeping with him when he died. She had always been an ailing child, she left school after the seventh grade, and her first child was illegitimate. Her first marriage resulted in divorce.

The last two cases cannot be made to coincide with the hypothetical irregular patient of our theory. Mr. N. had made adequate arrangements for his continued treatment under what appeared to him as more favorable circumstances. His action was the result of a thorough analysis of the situation, consultation with a specialist,
and a consideration of all of the known variables. He did not enter
the hospital simply because the "doctor said it would be the best
place for me" and he did not remain when the superintendent tried to
persuade him with the foreboding figures of readmission and death rates which Mr. N. knew included extremes of which he was not one.
Hospitalization was a means to an end for Mr. N.; when it appeared
to him that it had served its function he left, with apparently no
sense of guilt or remorse.

For Mrs. S., however, the hospital and the doctors appear to have had special significance. The dependence upon the doctors and
the hospital was not evident in the other irregularly discharged patients, unless it was in the resentment which they showed toward them. Mrs. S., however, did not express such hostility; on the
contrary she derived a vast amount of satisfaction from this depend­ency relationship. She did express some ambivalence toward it, however,
for while "God and Dr. X could get her through anything," and while she did not blame Dr. X for taking out more ribs than he told her he was going to when he operated, it had upset her husband much to see her bleeding so, and she was very sick afterwards.

The implications of these and other "deviant" cases will be discussed at greater length in the concluding chapter. The hypotheses
were not rejected on the basis of evidence from this sample of patients
and questions, but specific items did show differences between the two
groups of patients. Further comment on these items will also be made
in the concluding chapter.
CHAPTER V

FINDINGS: THE PREDICTIVE INSTRUMENT

Selecting items for the instrument.--In the last chapter it was observed that when chi squares were computed for the three groups, on seventeen of the items the values were significant at or beyond the .05 level. For an additional eight items critical ratios between group A and/or groups B and C indicated significant differences on responses. As predictive items, two of those having significant critical ratios were useless, Items 33-4 and 17. An answer to Item 33-4 depends upon having experienced hospitalization, but a predictive instrument must discriminate at the time of admission. Item 17 was discarded because it lacked linear relationship. It was expected that the higher the socio-economic status, the greater the probability of a stay response; and the converse. In actuality this does not occur, nor does the reverse. This should be qualified in terms of the results of the one measure of socio-economic status which was used--the Hatt-North Occupational Prestige Scale.

To these fifteen items were added two more selected from the eight having significant critical ratios but not significant chi squares. None of the three items with significant critical ratios between only groups A and C were chosen, since a significant critical ratio between the controlled groups A and B was deemed essential.
One item was chosen from the three having critical ratios significant between groups A and B, and B and C, and one item was chosen from the two displaying significant critical ratios between only groups A and B. These seventeen items then were used in the construction of the predictive instrument.

Method I

Weighting the items in the instrument.—Probability statements for responses of groups A and B to the categories included in each item were available. The logarithms of the probability values of the "leave" responses on the seventeen significant items were ascertained. (See Appendix V, Table 1.) Each questionnaire was assigned a score, which was the sum of the seventeen logarithmic values.77

Scores thus computed for the 108 cases (two were thrown out because of insufficient data on the seventeen items) in the Experimental Group A and Matched Control Group B ranged with intervals of 0.1 from 26.6 to 30.8. Below the arbitrary cutting point of 28.5, fell 56 cases. Of these, 76.8 percent remained to complete treatment. Above this arbitrary cutting point were fifty-two cases. Of these 80.8 percent left against medical advice. In other words, 20.4 percent of the cases are predicted inaccurately. This is shown in Illustration I.

When scores were computed in the same manner for the sixty-

77 Moran, op. cit.
ILLUSTRATION I

PERCENT OF ORIGINAL CASES AS DISTRIBUTED ON THE PREDICTION INSTRUMENT

C Group

B Group

A Group

PERCENT OF CASES

SCORES, METHOD I

N = 175

C Group

B Group

A Group

PERCENT OF CASES

SCORES, METHOD II

N = 175

- 72 -
nine cases in the Unmatched Control Group C, 78.3 percent fell below the cut-off point of 28.5. There was 21.7 percent inaccuracy in the prediction. The predictive instrument for this 1951-1953 sample having been constructed from the same cases being predicted, prediction was of course spuriously high. Therefore the instrument was cross-validated on a sample of 1954 discharges.

Cross-validation of instrument using Method I weighting.

Of forty-six questionnaires returned by patients discharged between January and July of 1954, thirty cases fell below the 28.5 cut-off point and sixteen fell above it. Twenty-six of the thirty cases below the cut-off point were regularly discharged; nine of the sixteen cases above the cut-off point were irregularly discharged. The total degree of accuracy with which the instrument predicted was 76.1 percent; on the "regulars" alone it was 78.7 percent, on the "irregulars," 69.2 percent. Looking at it another way, the instrument served to isolate from the sample of forty-six cases a group (thirty-three) with 8.6 chances out of ten of completing hospitalization, and another group of fifteen with 5.3 chances out of ten of leaving before hospitalization is completed. This is shown in Illustration II. The contingency coefficient on the cross-validation sample was .413, p greater than .001.

Method II

Since the converted scores assigned to patients by the above method only serve to accentuate the direction of each of the seventeen individual probability statements, and do not take into account the
ILLUSTRATION II

PERCENT OF VALIDATION CASES AS DISTRIBUTED ON THE PREDICTION INSTRUMENT

SCORES, METHOD I  \( N = 46 \)

SCORES, METHOD II  \( N = 46 \)
the interdependence of events, another method was used on the same items to attempt to determine to what extent taking into account interrelationships of the items would affect the predictability.

Weighting items in the instrument by Method II.—A matrix table was computed consisting of seventeen factors correlated with each other and with the stay-leave criterion. (Appendix V, Table 2) The categories on the items were assigned the arbitrary weights arrived at by means of converting the probability statements into logarithms. The first number of the mantissa was used as the weight. For the criterion, zero was assigned to the "stay" response, and one to the "leave" response. This was necessary because in order to compute product moment correlation coefficients, all variables had to be quantitatively ordered.

From the matrix table of Pearsonian correlation coefficients, were obtained weights, by a method of applying to the discriminant function the conventional multiple regression procedure. As a result only those variables were selected which made independent contributions toward the discrimination between stay and leave responses, and at the same time the optimal weights to be assigned to the variables were determined.78

The magnitudes of the coefficients were low, the highest (+.331) accounting for ten percent of the variance in the criterion.

An iterative procedure was applied to the coefficients of correlation of the predictor variables with the criterion variable (reproduced as the first column of Appendix V, Table 3). After thirty-five iterations a series of regression coefficients (second column of the same table) emerged. Each regression coefficient was divided by the standard deviation of its corresponding variable in order to arrive at the beta weights (fourth column of Appendix V, Table 3).

Individual questionnaires were then scored separately by multiplying the code value for each category by the corresponding beta weights. These weights were then added and a total score was assigned to each individual. The scores for the 108 individuals in groups A and B ranged from 4.90 to 8.05. Above an arbitrary cutting point of 6.50 fell fifty-nine cases or 53.8 percent of the cases. Forty-five, or 76.3 percent, of these individuals left against medical advice. Of the forty-nine cases having scores falling under the cutting point of 6.50, thirty-nine, or 79.6 percent, remained to complete treatment in the hospital. Twenty-four cases, or 22.2 percent of the total, are inaccurately predicted. (See Illustration I.)

For the sixty-nine cases in the Unmatched Control Group C, there is 34.8 percent error of prediction, twenty-four cases falling above the 6.50 cutting point when scores are computed in the same manner as for groups A and B.

Cross-validation of the instrument, using scoring Method II.--

When the forty-six validating questionnaires were scored using the weights based on intercorrelations between items, thirty-two fell
below 6.50 and fourteen scored 6.50 and above. The percent of cases scoring below 6.50 who completed treatment in the hospital was 84.3; the percent scoring above 6.50 who left against medical advice was 57.1. Thus, the instrument failed to predict eleven cases, or 23.9 percent of the 46 cases. (See Illustration II.) The instrument predicted better for the thirty-three cases who left with medical advice, accuracy being 81.8 percent, than for the thirteen cases who left against medical advice, accuracy being 61.5 percent. The contingency coefficient was .391, p greater than .001.

Comparison of the Results of Method I and Method II

Two predictive instruments were constructed from a sample of 1951-1953 cases being predicted. The first method did not attempt to weight relationships between items, but only to weight the relationship of each item to the criterion. The second method, while based on the first, additionally took into consideration the relationship of each item to every other item in the weight assigned to it.

Using Method II on the original sample, an error of 22.2 percent was discovered as compared with an error of 20.4 percent on Method I. A comparison of the two illustrations, however, indicates that the second method distributes the scores so that there is greater predictability in the extreme range. It can also be observed that Method I predicts the "leave" response more accurately while Method II is more accurate at the lower end of the scale.

On the 1954 validation sample there was no difference between the accuracy of prediction by the two different methods, Method I
being 76.1 percent accurate and Method II being 76.1 percent accurate. In other words, the use of the scores for prediction, arrived at by either method of weighting, achieve in the validation sample a 47.8 percent decrease in error, relative to the error entailed in prediction from chance alone.

A difference on the C—unmatched—group, however, was observed, there being 21.7 percent inaccuracy by Method I, as compared with 34.8 percent by Method II.

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CHAPTER VI

CONCLUSIONS

In this study of irregular discharges from tuberculosis hospitals, two objectives were maintained. For one, we were interested in knowing who leaves the hospital against medical advice and who remains to complete treatment; in other words, we wanted to devise an instrument which would predict at the time of admission to the hospital the probable outcome for individual patients. At the same time, the phenomenon of leaving the hospital irregularly appeared to fall into the more general area of social control and an explanation in terms of its theoretical conceptualization was sought. The degree of success of these two enterprises will be reviewed in the order mentioned.

Relating to the Predictive Instrument

The two instruments designed to predict "stay" or "leave" responses were as efficient as most predictive instruments.-80

Using Method II, 15.7 percent of individuals in the validation sample

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scoring below the arbitrary cutting point actually left against medical advice, and would not have been detected by the instrument at the time of admission; using Method I, 13.3 percent of the individuals so scoring would have left against medical advice. Looking at it another way, instrument I would have enabled administrators to have located 66.7 percent of all individuals who left against medical advice; instrument II would have enabled 61.5 percent to have been located at the time of admission to the hospital.

Until there is a definite policy on the disposition of potential irregularly discharged patients, it is difficult to evaluate the efficiency of the instruments. If 67 percent of all individuals predisposed to leave the hospital against medical advice were known at the time of application for admission, arrangements could have been made either for providing treatment outside the hospital or for special efforts to persuade these patients to complete treatment in the hospital. If such a practice were carried out, a large proportion of potential disease carriers could be identified and treated more effectively, without injury to the moral sense of the public or to the psychological condition of the patient.

Although the instrument is fairly effective in selecting patients who will leave against medical advice, the predictability of the instrument using either method of weighting falls far short of the ideal. And even so, the cross-validation was accomplished on a sample from the same hospital. It is to be expected that loss in predictability would be greater from one hospital to another than
from one sample to another from the same hospital. Considering then, the limitations inherent in the sample, it is unlikely that any amount of statistical manipulation would greatly reduce the predictive error.

The error is, as in most predictive instruments, largest in the middle range of the scores. Perhaps a glance at what was involved in the prediction will suggest some reasons for this. While this study, like most of the predictive studies in the social sciences, involved generalizing from past observations of the relationship between a set of predictive items and the criterion to be predicted, it was also felt that the approach had to be in terms of an analysis of individuals as affected by the actual present situation. In the light of this we posited the kind of individual who would "fail" in such a situation. What we did not consider was (1) that there may be many such types who will also fail, i.e., we might have set up several ideal types, and (2) that the definition of "failure" is not very precise. This, I think, is particularly substantiated by the impressions one obtains from reading the case studies.

The weakness of all-or-none criteria. — As is so often the case with problems of prediction, one of the major difficulties lay in the ambiguity of the criterion. We have already seen that "irregular" discharge means many things; certainly there is a difference between the people like Mr. N. described in chapter IV and the ones who make a habit of entering and leaving the hospital; yet both are subsumed under the class "irregular." Further classification would be helpful. It may be necessary to have the staff--doctors, nurses,
and social workers—evaluate each case and determine the nature of the discharge, placing them on a continuum of "regularity." That is, those who completed treatment to the satisfaction of everyone, those who left before medically advisable, but who were known to be continuing treatment, as well as those who were discharged because it was known they were impatient to leave and the staff preferred not giving them a "bad" record, and others. The possibility that there is more than one type of irregular discharge is a very real one.

Elements have been ignored.—Of course, what this really means is that many of the elements in the situation of the tuberculosis patient have been ignored—that more of the present sociological conditions which impinge upon a patient need to be taken into consideration. For example, it is important to know whether or not there are children in the family and how much concern the patient feels about the possibility of infecting them; we need to know whether or not the hospital represents to the patient a retreat from the pressures of everyday life; and we ought to have some index of the weight of financial difficulties upon the patient. This is not to endorse the position that such factors are "reasons" for leaving, but that they are inextricably bound up in the total situation which must be appraised and acted upon by the patient with whatever resources are available to him from his past training and experiences.

The possibility of changes in attitude.—Aside from the problem of over-simplification into which every theoretical framework is in danger of leading the researcher, we had the matter of an ex post facto design to contend with. At the present time we do not know whether
this instrument will predict at the time of admission. If the patient responds to the items in the questionnaire in the same manner at the time of admission as he does after discharge, either regular or irregular, the instrument predicts with as much accuracy as we report. If the answers to these items are different after the patient has undergone hospitalization, we cannot evaluate the instrument. While we have some evidence from Rorabaugh and Guthrie that patients' answers to attitude items remain consistent despite the hospitalization experience, the applicability of the instrument at the time of admission remains to be tested.

Relating to the Theoretical Problem

The null hypotheses set up in Chapter II have not been rejected. Whether the explanation of irregular discharge advanced here is invalidated depends, of course, upon whether we have adequately tested the hypotheses. We have already considered the effects upon the instrument of the experimental design, the criterion, the sample of questions, and the tests of significance. We shall briefly reconsider these factors here, and discuss the significance of the findings for sociological theory.

Everything which has been said of the methodological weaknesses in constructing a predictive instrument applies also to the testing of the hypotheses. A projected design would have assured us that the effect of the hospitalization experience is not being measured, just as a sample of patients from more than one hospital would have randomized specific practices of the particular hospital under study. The
ex post facto design, however, is not vulnerable on the background items, and in the weighting of items by Method II the attitude items actually received very little weight. (See Appendix V, Table 3.) The possibility of using only background factors should be considered if this type of design cannot be avoided.

While the test of the hypotheses does not require a broader framework, i.e., consideration of the other conditions entering into the hospitalization situation, it does require a more fitting sample of questions than was used, especially for some of the hypotheses such as IV. In retrospect we believe that separate scales devised to measure each of the five characteristics for which differences were found between the two groups would have been necessary for conclusive acceptance or rejection of the hypotheses. Some of the items, such as those significant for Hypothesis II, may easily scale, but other items need to be added.

As they stand, the items which show significant differences between two of the three groups are both background factor items and attitude items. It seems important to ask not only "what happened," but also "of what significance is it" to the individual. In other words, "age at leaving home," to give an example, may be important only in terms of "parents' attitude toward leaving home." From the correlation analysis (See Appendix V, Table 2.) we see that the two were related to each other (+.54) as well as to the criterion (+.33 and +.27). Patients who left home at an early age reported more disfavor on the part of their parents than those who left later, and both patients who left home early and those who reported parental
disfavor were more likely to leave the hospital against medical advice. Both of the latter items correlated highly with marital status (+.24 and +.40) and number of marriages (+.34 and +.37).

The way in which the patient treated difficulties with his superiors on the job correlated highly with his attitudes toward forced hospitalization and with his feelings about whether he could please the people he lived with. Individuals who reported expressing themselves toward their bosses regardless of the consequences, felt patients should not be compelled to enter or remain in the hospital (+.20) and expressed difficulty in pleasing the people with whom they lived (+.19). Also a slight relationship exists between attitudes toward forced hospitalization and doctors not communicating technical knowledge.

Attitudes toward forced hospitalization are rather highly related to attitudes toward doctors (1) acting superior to patients (+.16), (2) being more interested in their patients (+.16), (3) not earning respect (+.19), and (4) being difficult to find one you can trust (+.23).

All of the items on doctors and nurses are more highly related to each other than to any of the other items except the generalized attitudes toward self and others. These correlations are the highest, except for the correlation between number of marriages and marital status (+.66), which is high for obvious reasons. The only item for which the difference was in a different direction from what we expected was the attitude toward people "looking out for themselves,"
which correlated negatively with the attitudes toward nurses, doctors, and self. (In the matrix table, positively, because an adjustment was made in the weighting for Method I.)

From the correlation analysis we conclude that there is a type of patient corresponding to the one hypothesized, who leaves the tuberculosis hospital against medical advice. Further analysis of the remaining items may show relationships which are not evident from the crude statistical analyses which have been made. Such analysis, however, is impossible until a larger sample has been collected.

Summary

The results of the correlation analysis appear to substantiate the main body of theory relating to personality and social structure, especially the conception of personality as an integrated pattern of typical reactions to social situations, originating in interpersonal relationships. Patients who left the hospital against medical advice left home at an early age and with parental disapproval (suggesting rebellion) and their attitudes toward compulsory hospitalization were more negative than were those of patients who stayed. They tended to approve compulsory hospitalization for inferiors ("bums," etc.) more often, and their feelings about nurses and doctors were more negative than those expressed by regularly discharged patients, showing more resentment toward the superior attitudes, knowledges and skills of doctors. Additionally, they reported experiencing difficulty in trusting doctors and feelings that doctors are not interested in patients as much as in money. These patients also were inclined to report
difficulty in interpersonal relationships, expressing feelings of inability to please the people they lived with and reporting more marriages resulting in divorce and separation. They stated that difficulties with superiors were handled by outright expression of opinion regardless of results more frequently than those who remained to complete treatment, who said they seldom had disagreements with superiors and when they did that they kept their complaints to themselves. With respect to the inferiority designation of the disease, these patients felt a change in attitude of their family toward them after their tuberculosis was diagnosed.

On the whole the findings of the study are in accord with the theories reviewed in Chapter II, and this study may represent another

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81 Two significant items on which the two groups did not respond according to the expectations derived from theory require further comment. We noted in the section where we described the relationship of irregularly discharged patients to persons in authority that whereas this patient could not be equated with the authoritarian personality—and the findings appear to corroborate this notion—we could expect the irregularly discharged patient, like the authoritarian personality, to be hesitant in openly criticizing superiors who have been the source of hostility. Actually, we found on Item 70 dealing with expressing one's self to superiors in case of disagreements, the irregularly discharged patients verbalized expressing themselves to their superiors. This may not be contradictory, however, since this item may also test a disregard of personal consequences of the act, since the alternative most often accepted by irregulars is stated, "I came out and told them what I thought regardless of the results." One patient, regularly discharged, who checked this alternative wrote in, "But I did it in a nice way." Another wrote in, "We talked things over quietly and in a friendly manner."

Another exception to theory seems to be Item 43-3, an item taken from the Adorno F Scale. On this item about "people looking out for themselves at the expense of others" the results were reversed, from expectations. Again, we did not expect the item to discriminate between the two groups because the irregularly discharged patient is an authoritarian personality, but because at face value the item appeared to be testing feelings of exploitation on the part of the irregularly discharged patient, which trait was also found for the
segment in the empirical verification of this growing body of theory. It is believed, however, that a more carefully designed and comprehensive study would do much toward advancing more definite claims. Additionally, intensive interviews would undoubtedly allow for deeper analysis than the mailed questionnaire method could ever achieve.

More specifically the study represents one of the first attempts to collect empirical data on the importance of the patient-doctor relationship in the treatment of illness. Despite the confusion arising from discussions of the importance of psychological factors in the etiology of the disease, there appears to be little doubt about their importance in treatment. In the literature we find statements as strong as, "Faith in the physician is the most important ingredient of any 'cure'," being made by physicians themselves.

After citing an example of the fluctuation in the irregular discharge rates of a public sanatorium with the absence and presence of the chief medical officer, Tollen summarized:

The patient-doctor relationship—the doctor's attitude toward and genuine interest in the individual patient as a person, and the patient's confidence in the doctor as someone who sincerely recognizes his total interests—is the Rock of Gibraltar in treatment of tuberculosis, whatever may be true of other diseases. All else extends from and builds upon this central base. . . . All other measures designed to prevent irregular discharge of the tuberculous pale into insignificance without a sound and wholehearted patient-doctor relationship. For this, there is no authoritarian personality. One explanation for the apparent discrepancy between the rationale and the findings may be that patients are thinking in terms of the tuberculosis hospital framework, and that the regularly discharged patients view patients who leave against medical advice as "looking out for themselves at the expense of others" and therefore agree with the statement. On the other hand, irregulars may interpret the question in the same manner, and deny the accusation on their own behalf

substitute. It comes first and it remains basic throughout treatment. It is the sine qua non that validates and reifies everything that anyone else does to prevent irregular discharge of the tuberculous.\textsuperscript{83}

This situation of voluntary hospitalization for individuals carrying infectious disease can be viewed as an exaggeration of a less spectacular phenomenon. One is led to speculate upon the importance of the patient-doctor relationship upon curing illness in general, and particularly in the case of so-called psychosomatic disorders. It is well known that for some patients one of the difficult stages in psychotherapy is the initial stage, and that many neurotic patients leave the therapeutic situation before the "transfer" to the doctor has taken place. One wonders whether these patients are anything like those who leave the tuberculosis hospital against medical advice.

As was mentioned above in criticizing the tests of the hypotheses, items more specifically related to the particular hypotheses advanced in this study would have been more convincing than those which were found to be significant. The significant items could be testing alternative hypotheses; for example, we might have hypothesized that patients who leave against medical advice are more likely to be those who have difficulties in their family relationships, since we found that they left home against parental advice at an early age, since they more often have been divorced, and since they express difficulty pleasing the people they live with. We might further generalize and say that they have difficulties with all other people,

\textsuperscript{83}Tollen, \textit{op. cit.}, p. 38.
since they do not get along with doctors or nurses either. On the other hand, we might have made the hypotheses more specific yet, and attributed behavior of the irregularly discharged patient to his authoritarian personality, administering the tests in Adorno. The latter type of effort was discussed in our critique of the studies which administered personality tests like the MMPI, etc.; the former more parsimonious type of hypothesis needs consideration and should be tested in future study.

84 Adorno, op. cit.
APPENDIX I.

FORMS USED IN THE PRELIMINARY INVESTIGATION

Part A. Face Sheet Used by Benjamin Franklin Hospital

Social Service Department

BENJAMIN FRANKLIN HOSPITAL
SOCIAL SERVICE DEPARTMENT

Application No. _____ Hospital Case No. _____

<table>
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<th>Admission Date</th>
<th>Admission Diagnosis</th>
<th>Discharge Date</th>
<th>Discharge Diagnosis</th>
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Referred by ____________________________

Name ____________________________ Maiden Name ________ Phone ________

Residence

Present Address ____________________________ From _____ To _____

Previous Address ____________________________ From _____ To _____

Time in U.S. _______ In Ohio _______ In Franklin County _______

Nationality ______________ Education ______________

Birthdate _______ Age _______ Birthplace ______________

Sex _______ Color _______ Religion _______ Marital Status _______

Married To ____________________________ Date - Place ____________________________

Divorced From ____________________________ Date - Place ____________________________

Remarried To ____________________________ Date - Place ____________________________

- 91 -
IN CASE OF SERIOUS ILLNESS NOTIFY

<table>
<thead>
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<th>Address</th>
<th>Relationship</th>
<th>Phone</th>
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Legally Responsible Relative

Other

Occupation (1) (2)

Members of Family

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<tr>
<th>Name</th>
<th>Birthdate</th>
<th>Address</th>
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Friends and Relatives

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</table>

Occupation

Chief Occupation __________________ Length of Time Followed __________

Name, Address Last Employer __________________ From ______ To _______

Type of Work __________________ Social Security No. ________

Military Service Record

Serial Number __________

Branch of Service ______ Date Entered ___ Date Separated ___

Type of Separation __________
VA Pension ______ Amount ______ Kind ______ Claim No. ________

Insurance

Finances
The Columbus Tuberculosis Society  
503 Oak Street  
Columbus 15, Ohio

Dear [Name],

Are you willing to help a student who is doing some important research on hospital needs of the tuberculosis patient?

Would you be willing to provide information about your own experiences—information which you, and only you, as a former TB patient, can give?

Miss Emily Westerkamm, a student at Ohio State University, is compiling data for a thesis for a graduate degree. Research on this subject is fairly new, and little information has been printed.

Miss Westerkamm will interview you either at your home or at this office, and at any time most convenient for you.

This interview will be strictly confidential, covering general background information, and your name or description will never be attached to the results. Information gathered in the interview, lasting about an hour, will appear only in graph or statistical form.

A large number of recently discharged TB patients is being asked to participate in this valuable project.

With your cooperation, Miss Westerkamm may be able to furnish the tuberculosis field with some much needed data, leading to a more satisfactory life within the tuberculosis hospital.

Thank you. I hope you will find it possible to cooperate.

Cordially,

Gerald D. Fry  
Executive Director

P.S. Won't you please fill out the enclosed post card as soon as possible, so that Miss Westerkamm can schedule interviews.
Yes, I will be glad to help.
I prefer to be interviewed at home. 

...at the Columbus Tuberculosis Society, 
503 Oak St.

During the week of: January 25--29
February 1--6

Signature
I. The Diagnosis:
   A. By whom and under what conditions.
   B. Patient's reactions.
   C. Reactions of family and friends.
   D. Behavior of doctor as perceived by patient.

II. Hospitalization:
   A. Length of time after diagnosis.
   B. Alternatives considered.
   C. Hardships imposed.
   D. Reasons for going.
   E. Reactions of family and friends.
   F. Plans—for job, family, income, etc.
   G. Knowledge and preparation.

III. The stay at the hospital:
   A. Opinions on the staff and administration
   B. Opinions about other patients.
   C. Attitudes toward rules and regulations.
   D. Suggestions for improvement.

IV. Childhood and social background:
   A. Early childhood.
   B. Parents and siblings.
   C. Socio-economic status of parents.
   D. Socio-economic status and occupation at the time of admission.
E. Geographical moves.
F. Age at leaving school and reasons for leaving.
G. Friends—many or few, intimate or distant, etc.
H. Church membership and attendance.
THE OHIO STATE UNIVERSITY
Department of Sociology
Columbus 10, Ohio
March 25, 1954

Dear __________________:

Will you help with some important research in tuberculosis?

Will you provide information on the enclosure about your own experiences — information which you and only you as a former TB patient, can give?

With your assistance we may be able to furnish the tuberculosis field with some much-needed data on a little-known subject, the needs of the hospitalized TB patient.

The information in the enclosed questionnaire will be held strictly confidential. We do NOT want you to sign your name. Your answers, however, are very important.

Results will appear ONLY in graph or statistical form.

When you have finished, please return the questionnaire in the stamped envelope — before 10 days if convenient.

You may be wondering why we are writing you.

We are asking everyone who has been discharged from Benjamin Franklin Hospital between 1951 and 1953 to participate in this valuable project.

We shall be grateful for your cooperation.

Cordially,

Emily M. Westerkamm
Department of Sociology
Ohio State University

P. S. To get accurate results, an answer from EVERY person is necessary. Thanks again for your help.

EMW
QUESTIONNAIRE FOR FORMER TUBERCULOSIS HOSPITAL PATIENTS
Ohio State University Study

Fill in or check the appropriate answer.

1. When was the last time you were in a tuberculosis hospital?
   From (month) (Year) to (month) (Year)

2. How old were you when you were admitted to the hospital the last time?

3. How long had you lived in Franklin County at the time you were last admitted to the hospital?

4. What was your occupation at the time you were admitted to the hospital?

5. What was your marital status?
   ______ Single   ______ Married   ______ Separated or divorced   ______ Widowed

6. Sex: ______ Male   ______ Female

7. Race: ______ White   ______ Other

The following questions are about experiences you may have had before you entered the hospital. Many of them may have happened to you so long ago that it will be difficult for you to answer exactly. Will you please try to answer them as you remember them today? Check the answer that is appropriate or write in the answer where it is necessary.

1. How old were you when you left the home of your original family on your own?
   ______ Under 15 years old   ______ Between 25 and 29
   ______ Between 15 and 29   ______ Over 30 years old
   ______ Between 20 and 24   ______ Still living at home

2. For what reason did you leave the home of your original family?
   ______ To marry and set up my own family
   ______ To earn my own living somewhere else
   ______ To attend school away from home
   ______ To go to the service
   ______ Other reasons
3. What was the attitude of your family toward your leaving home?
   ____ One or both parents were against it
   ____ One or both parents made me feel I had to leave
   ____ One or both parents helped me to leave
   ____ One or both parents did not seem to care one way or the other

4. Did you leave home willingly or unwillingly?
   ____ Willingly  ____ Unwillingly

5. During the time you were living at home, were your parents living together or separated?
   ____ Living together  ____ Separated due to divorce
   ____ Separated due to death  ____ Separated due to desertion

6. If your parents were separated during the time you lived at home, how did you feel about it when it happened (regardless of cause)?
   ____ It didn't seem fair to have happened to me.
   ____ It seemed to be for the better since my parents didn't get along anyhow.
   ____ I felt I was not going to have as many things in life as I would have had.
   ____ It made me feel different from the other kids I knew.
   ____ I felt I had lost a real friend and companion.
   ____ It didn't seem to make much difference in the way I was living.

7. How many children besides yourself were there in the family in which you grew up?
   ____ Number of boys older than myself (write in)
   ____ Number of girls older than myself
   ____ Number of boys younger than myself
   ____ Number of girls younger than myself

8. Remembering the way your parents got along with each other during your childhood, which of the following words or phrases would you choose to describe it?
   (check one below)  (check one below)  (check one below)
   Stormy  Cool and distant  Incompatible
   Changeable  Changeable  Uncertain
   Happy  Warm and friendly  Compatible

9. As you recall your father's attitude toward you during your childhood, which of the following words or phrases would most nearly describe it?
   (check one below)  (check one below)  (check one below)
   Cold  Strict  Not understanding
   Indifferent  Unpredictable  Uncertain
   Warm and friendly  Easy-going  Understanding
10. As you recall your attitude toward your father during your childhood, which of the following words or phrases would most nearly describe it?
   (check one below) (check one below) (check one below)
   Hated him  Afraid of him  Contemptuous
   Indifferent  Doubtful  Indifferent
   Fond of him  Trusted him  Admiring

11. As you recall your mother's attitude toward you during your childhood, which of the following words would most nearly describe it?
   (check one below) (check one below) (check one below)
   Cold  Strict  Not understanding
   Indifferent  Unpredictable  Uncertain
   Warm and friendly  Easy-going  Understanding

12. As you recall your attitude toward your mother during your childhood, which of the following words would most nearly describe it?
   (check one below) (check one below) (check one below)
   Hated her  Afraid of her  Contemptuous
   Indifferent  Doubtful  Indifferent
   Fond of her  Trusted her  Admiring

13. In general, how did you feel about the way your parents treated you and the other children (if there were any)?
   (check one below)
   My parents provided us with the necessities of life, nothing more
   My parents had favorites among their children
   My parents gave their children everything they could
   My parents treated all their children alike
   My parents often forgot about the children when they were involved in their own affairs
   My parents were devoted to their children

14. As you look back on your childhood, would you describe it generally as
   Sad?  Indifferent?  Happy?

15. As a child do you recall to which parent you most frequently gave your confidences?
   (check one below)
   To my father  To my mother  To neither

16. When you were a child, how did you react to your parents' telling you what to do?
   (check one below)
   I never disagreed with them or questioned them; always did what they told me
   I disagreed but kept it to myself
   I came right out and told them what I thought
17. How did your family feel about calling in or going to doctors?
   - Believed in yearly check ups by a family physician
   - Went to a doctor or called him in only in cases of emergency such as severe pain or accidents
   - Delayed going or calling, but did when trouble persisted
   - Never went

18. How old were you when you married (the first time if you have been married more than once)?
   - Under 15 years old
   - Between 15 and 19
   - Between 20 and 24
   - Over 30 years
   - Unmarried

19. Did you experience much difficulty in deciding whether or not to get married?
   - Some difficulty
   - Much difficulty
   - No difficulty

20. Have you been married more than once?
   - No
   - Yes
   - If yes, state number of times

21. For which of the following reasons did you leave school?
   - Had to work to help support the family
   - Had to work to support self
   - Had trouble with the school authorities
   - Thought I knew more than the teachers
   - Graduated from high school or college
   - Others

22. What happened when you disagreed with your teachers?
   - I never disagreed with them or questioned them; I always did what I was told
   - I disagreed but kept it to myself
   - I complained to the other students, but not to the teachers
   - I came right out and told the teachers how I felt

23. During the time that you lived at home with your family, how often did they change their place of residence?

24. Would you say you were a sickly or a well child in general?
   - Sickly
   - Well

25. When you were between the ages of 10 and 15 years do you recall whether or not you had any of the following experiences frequently? Check them, if you did.
   - Fears of disease
   - Fears of death
   - Fears of harming others
   - Nightmares
   - Irritability
   - Bashfulness
   - Desire to be alone
   - Loss of appetite
   - Vomiting
   - Diarrhea (running bowels)
   - Rapid heart beat
   - Shortness of breath
26. As an adult, how had your health been until the time your tuberculosis was diagnosed?
   _____ Poor  _____ Average  _____ Excellent

27. Since the time you left your family's home, how many times have you changed your place of residence? _______________________

28. How many times have you changed jobs since you held your first job? __________________

29. If you changed jobs as a result of moving, did you have a job before you moved, or did you have to look for one after you moved?
   _____ Had one before  _____ Looked for one after moving
   _____ Does not apply to me

30. What did you usually do when you had disagreements with your bosses?
   _____ I never questioned them; I always did as they said
   _____ I disagreed, but kept it to myself
   _____ I disagreed, but complained to other workers
   _____ I came right out and told him how I felt about it

31. If you have ever been in a tuberculosis hospital before, how many times were you admitted?
   _____ Never in before  _____ Three times before
   _____ Once before  _____ Four times before
   _____ Twice before  _____ Five or more times

32. Do you now, or did you ever, have any of the following persons in your family or as personal friends (whom you visit with)?
   _____ Registered nurse   _____ Lawyer
   _____ School teacher (BA)   _____ Social worker
   _____ Doctor   _____ Minister (graduate of divinity school)

33. What was the occupation of the main supporter of the family during your childhood? _______________

34. What would you say was most emphasized by your family during your childhood?
   _____ Material things, such as money, job, business, property
   _____ Work and simple pleasures like being with the family
   _____ Art, music, literature and education
   _____ Religion, such as prayer, reading the bible, and doing good deeds

35. Have you ever had any trouble with the law?
   _____ Have had tickets for traffic violations
   _____ Have been arrested for minor offenses
   _____ Have been arrested for serious offenses
   _____ Have been in law suits
   _____ Never had any
36. As a child did your parents tell you who you could play or associate with?
   ______ Yes, they preferred to have me choose my friends from the better class of people
   ______ Not much was said one way or the other; left it up to me
   ______ No, they did not even know who I played with

37. Would you say you have had many friends or few friends in your life?
   ______ Many close friends     ______ Many friends, but not intimate
   ______ Few close friends       ______ Few friends, and not intimate

38. Did you know anything about tuberculosis when you found out you had it?
   ______ Yes, I had known someone who had it
   ______ Yes, I had learned about it in a class in school
   ______ Yes, I had read about it
   ______ Yes, I had heard people talking about it
   ______ No, I didn't know much about it at all

39. How do you think a person learns the most about what makes people act the way they do? (Number in order of importance, 1, 2, 3, for first three choices)
   ______ News items in the newspapers
   ______ Dealing with people directly on the job
   ______ Psychological movies or novels
   ______ Columns like "Let's Explore Your Mind," Dr. Crane, Molly Mayfield, etc.
   ______ Watching my own family and friends
   ______ Talking people over with others who know them
   ______ Psychology books
   ______ Can't ever learn much about other people
   ______ Putting myself in the place of others mentally

40. When you go to a movie or read a novel, which do you prefer?
   ______ Adventure stories     ______ Mystery
   ______ Westerns             ______ Love story
   ______ Musical or historical ______ Psychological

41. When you begin a new job, what has been the best way of finding out what the rules are?
   ______ Rely on past experience    ______ Ask others working there
   ______ Ask the boss             ______ Ask no one; just watch and see

42. If you were a newcomer to a city and needed a doctor, which do you think you would do?
   ______ Ask a friend which one he goes to
   ______ Go to anyone in the neighborhood
   ______ Go to one downtown
   ______ Call the Physicians and Doctors Service
   ______ Other
43. If you had a friend who was having trouble with his marriage and he asked you what to do, what would you do?
   _____ Send him to his minister if he had one
   _____ Give him your advice
   _____ Refer him to a social worker in a family agency
   _____ Tell him it is his problem and you cannot help him

44. When your parents punished you as a child, which of the following was true in general?
   _____ They usually were angry at something else and took it out on me
   _____ They never bothered to find out if I was really guilty
   _____ I often did not know what I had done wrong
   _____ I felt they didn't punish me as often as I deserved it
   _____ They usually explained why they were doing it and made it seem reasonable
   _____ They never punished me

45. Which of the following statements do you think are true and which are false? Mark a "T" for true and "F" for false.
   _____ Medical science has proven that most illness, including mental illness, is due to bad heredity.
   _____ Some people are born with an urge to jump from high places.
   _____ More people die of cancer than of any other disease.
   _____ Some day it will be shown that astrology can explain a lot of things about the behavior of people.
   _____ Chiropractors are recognized by the American Medical Association.
   _____ A psychiatrist does not have as much training as a brain specialist, or neurologist.
   _____ A clinical psychologist can commit a person to a mental hospital.

46. What was the last year in school that you completed?
   _____ Less than eight years  _____ Less than 4 years of high school
   _____ Eighth  _____ Graduated high school
   _____ Business school or college

47. When you went to work on your last job, did you know anything about it beforehand?
   _____ Yes, I had friends working at the same place
   _____ Yes, I talked to the people who hired me about what it would be like
   _____ Yes, it was very much like a job I had before
   _____ No, I hardly knew anything about what to expect

The following statements refer to opinions regarding a number of issues about which some people agree and others disagree. Please mark each statement in the left-hand margin according to your agreement or disagreement, as follows:
+ 1 slight agreement
+ 2 moderate agreement
+ 3 strong agreement
- 1 slight disagreement
- 2 moderate disagreement
- 3 strong disagreement

1. Lots of people seem to be friendly and sincere, but many of them only pretend to be that way.

2. People today are more inclined to look out for themselves at the expense of others.

3. Young, unmarried women with college degrees teaching in our public schools know less about handling children than the mothers who have learned from experience with their own children.

4. It is safer to trust nobody.

5. If several people find themselves in trouble, the best thing to do is agree upon a story and stick to it.

6. I have not lived the right kind of life or I wouldn't have had tuberculosis.

7. I usually resent the way most doctors, lawyers, teachers, and other such people try to act superior or different from the people they deal with.

8. On the whole, most of the red tape you come across today is really unnecessary.

9. In these times a person has to live pretty much for today and let tomorrow take care of itself.

10. I know more about myself than any psychiatrist or psychologist can ever know about me.

11. Even if a person has special training, a counselor who has never been married can hardly be expected to know how to advise a couple about marriage problems.

12. I often feel that I can never please the people I live with no matter how much I try.

13. I commonly wonder what hidden reason another person may have for doing something nice for me.

14. I have often had to take orders from someone who did not know as much as I did.
15. More people would have confidence in doctors if they did not treat their patients as though they could not understand anything.

16. There is not much use planning for the future since I can't do much about it anyhow.

17. I am in just as good physical condition as most of my friends.

18. I commonly wonder what hidden reason another person may have for doing something nice for me.

19. I am a good mixer.

20. I have often felt guilty because I have pretended to feel more sorry about something than I really was.

21. A person who has bad manners, habits, and breeding can hardly be expected to get along with decent people.

22. An awful lot of people are being pushed around by so-called experts.

23. The ordinary citizen could run this country as well as, if not better than, some of our present day statesmen and leaders.

24. It is all right to get around the law if you don't actually break it.

25. Most people are honest chiefly through fear of getting caught.

26. Sometimes I feel like smashing things.

27. People ought to stand up for their rights no matter who objects.

28. Most people inwardly dislike putting themselves out for other people.

29. People who are sick are sometimes treated as if they are not as good as other people.

30. I don't usually do what other people want me to do.

31. Too many people work so hard and long for what they want that they cannot enjoy life.

32. I almost always need to see the results of what I am doing immediately.
__33. It is difficult for me to respect people who cannot take care of their own. __

__34. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching a disease or infection from them. __

__35. The only people who benefit from rules and regulations are the ones who get satisfaction from laying them down to others. __

__36. The few people who can't control themselves make it necessary for the rest of us to abide by unpleasant rules. __

Part G. Follow-up Postal Card for Preliminary Questionnaire

Many of you have already sent back the questionnaire I sent you last week. I wish to thank you for your help.

But the schedule is long, and it is not easy to see the importance of the study. Then too, all of us are busy and may forget these things. If you have not filled out the questionnaire (and I have no way of knowing since you are not to identify the returned schedule), would you please take a few minutes and do so now? An answer from everyone is essential.

Thank you.

Emily Westerkamm
Ohio State University
THE OHIO STATE UNIVERSITY
Department of Sociology
Columbus 10, Ohio

April 21, 1954

Will you help with some important research in tuberculosis?

Will you provide information on the enclosure about your own experiences — information which you and only you as a former TB patient can give?

With your assistance we may be able to furnish the tuberculosis field with some much-needed data on a little-known subject: the needs of the hospitalized TB patient.

The information in the enclosed questionnaire will be held strictly confidential. We do not want you to sign your name. Your answers, however, are very important.

Results will appear ONLY in graph or statistical form.

When you have finished, please return the questionnaire in the stamped envelope — before 10 days if convenient.

You may be wondering why we are writing you.

We are asking everyone who has been discharged from Benjamin Franklin Hospital between 1951 and 1953 to participate in this valuable project — if not now, at a later date.

We shall be grateful for your cooperation.

Cordially,

Emily M. Westerkamm
Department of Sociology
Ohio State University

P.S. To get accurate results, an answer from EVERY person is necessary. Thanks again for your help.
Part I. Second Pretest Questionnaire Form A

QUESTIONNAIRE FOR FORMER TUBERCULOSIS HOSPITAL PATIENTS
Ohio State University Study

Fill in or check the appropriate answer.

1. When was the last time you were in a tuberculosis hospital?
   From _____(month)_____ (year) to _____(month)____(year)

2. How old were you when you were admitted to the hospital the last time? _________

3. How long had you lived in Franklin County at the time you were last admitted to the hospital? _________

4. What was your occupation at the time you were admitted to the hospital? _________

5. What was your marital status?
   Single  Separated or divorced
   Married  Widowed

6. Sex:   Male  Female

7. Race:   White  Other

The following questions are about experiences you may have had before you entered the hospital. Many of them may have happened to you so long ago that it will be difficult for you to answer exactly. Will you please try to answer them as you remember them today? Check the answer that is appropriate or write in the answer where it is necessary.

1. How old were you when you left the home of your original family on your own?
   Under 15 years old  Between 25 and 29
   Between 15 and 19  Over 30 years old
   Between 20 and 24  Still living at home

2. For what reason did you leave the home of your original family?
   To marry and set up my own family
   To earn my own living somewhere else
   To attend school away from home
   To go to the service
   Other reasons
3. What was the attitude of your family toward your leaving home?
   - One or both parents were against it
   - One or both parents made me feel I had to leave
   - One or both parents helped me to leave
   - One or both parents did not seem to care one way or the other

4. Did you leave home willingly or unwillingly?
   - Willingly
   - Unwillingly

5. During the time you were living at home, were your parents living together or separated?
   - Living together
   - Separated due to divorce
   - Separated due to death
   - Separated due to desertion

6. If your parents were separated during the time you lived at home, how did you feel about it when it happened (regardless of cause)?
   - It didn’t seem fair to have happened to me.
   - It seemed to be for the better since my parents didn’t get along anyhow.
   - I felt I was not going to have as many things in life as I would have had.
   - It made me feel different from the other kids I knew.
   - I felt I had lost a real friend and companion.
   - It didn’t seem to make much difference in the way I was living.

7. How many children besides yourself were there in the family in which you grew up?
   - Number of boys older than myself (write in)
   - Number of girls older than myself
   - Number of boys younger than myself
   - Number of girls younger than myself

8. Remembering the way your parents got along with each other during your childhood, which of the following words or phrases would you choose to describe it?
   - (check one below)
   - Stormy
   - Cool and distant
   - Incompatible
   - Changeable
   - Changeable
   - Uncertain
   - Happy
   - Warm and friendly
   - Compatible

9. As you recall your father’s attitude toward you during your childhood, which of the following words or phrases would most nearly describe it?
   - (check one below)
   - Cold
   - Strict
   - Not understanding
   - Indifferent
   - Unpredictable
   - Uncertain
   - Warm and friendly
   - Easy-going
   - Understanding
10. As you recall your attitude toward your father during your childhood, which of the following words or phrases would most nearly describe it?
   (check one below) (check one below) (check one below)
   ___________ Hated him ___________ Afraid of him ___________ Contemptuous
   ___________ Indifferent ___________ Doubtful ___________ Indifferent
   ___________ Fond of him ___________ Trusted him ___________ Admiring

11. As you recall your mother's attitude toward you during your childhood, which of the following words would most nearly describe it?
   (check one below) (check one below) (check one below)
   ___________ Cold ___________ Strict ___________ Not understanding
   ___________ Indifferent ___________ Unpredictable ___________ Uncertain
   ___________ Warm and friendly ___________ Easy-going ___________ Understanding

12. As you recall your attitude toward your mother during your childhood, which of the following words would most nearly describe it?
   (check one below) (check one below) (check one below)
   ___________ Hated her ___________ Afraid of her ___________ Contemptuous
   ___________ Indifferent ___________ Doubtful ___________ Indifferent
   ___________ Fond of her ___________ Trusted her ___________ Admiring

13. In general, how did you feel about the way your parents treated you and the other children (if there were any)?
   ___________ My parents provided us with the necessities of life, nothing more
   ___________ My parents had favorites among their children
   ___________ My parents gave their children everything they could
   ___________ My parents treated all their children alike
   ___________ My parents often forgot about the children when they were involved in their own affairs
   ___________ My parents were devoted to their children

14. As you look back on your childhood, would you describe it generally as
   ___________ Sad? ___________ Indifferent? ___________ Happy?

15. As a child do you recall to which parent you most frequently gave your confidences?
   ___________ To my father ________ To my mother ________ To neither

16. When you were a child, how did you react to your parents' telling you what to do?
   ___________ I never disagreed with them or questioned them; always did what they told me
   ___________ I disagreed but kept it to myself
   ___________ I came right out and told them what I thought
17. How did your family feel about calling in or going to doctors?

- Believed in yearly checkups by a family physician
- Went to a doctor or called him in only in cases of emergency such as severe pain or accidents
- Delayed going or calling, but did when trouble persisted
- Never went

18. How old were you when you married (the first time if you have been married more than once)?

- Under 15 years old
- Between 15 and 19
- Between 20 and 24
- Between 25 and 29
- Over 30 years
- Unmarried

19. Did you experience much difficulty in deciding whether or not to get married?

- Some difficulty
- Much difficulty
- No difficulty

20. Have you been married more than once?

- No
- Yes
- If yes, state number of times

21. For which of the following reasons did you leave school?

- Had to work to help support the family
- Had to work to support self
- Had trouble with the school authorities
- Thought I knew more than the teachers
- Graduated from high school or college
- Others

22. What happened when you disagreed with your teachers?

- I never disagreed with them or questioned them; I always did what I was told
- I disagreed but kept it to myself
- I complained to the other students, but not to the teachers
- I came right out and told the teachers how I felt

23. During the time that you lived at home with your family, how often did they change their place of residence?

24. Would you say you were a sickly or a well child in general?

- Sickly
- Well

25. When you were between the ages of 10 and 15 years do you recall whether or not you had any of the following experiences frequently? Check them, if you did.

- Fears of disease
- Fears of death
- Fears of harming others
- Nightmares
- Irritability
- Bashfulness

- Desire to be alone
- Loss of appetite
- Vomiting
- Diarrhea (running bowels)
- Rapid heart beat
- Shortness of breath
26. As an adult, how had your health been until the time your tuberculosis was diagnosed?
   ____ Poor   ____ Average   ____ Excellent

27. Since the time you left your family's home, how many times have you changed your place of residence? _____________________

28. How many times have you changed jobs since you held your first job? _________

29. If you changed jobs as a result of moving, did you have a job before you moved, or did you have to look for one after you moved?
   ____ Had one before   ____ Looked for one after moving
   ____ Does not apply to me

30. What did you usually do when you had disagreements with your bosses?
   ____ I never questioned them; I always did as they said
   ____ I disagreed, but kept it to myself
   ____ I disagreed, but complained to other workers
   ____ I came right out and told him how I felt about it

31. If you have ever been in a tuberculosis hospital before, how many times were you admitted?
   ____ Never in before   ____ Three times before
   ____ Once before      ____ Four times before
   ____ Twice before    ____ Five or more times

32. Do you now, or did you ever, have any of the following persons in your family or as personal friends (whom you visit with)?
   ____ Registered nurse   ____ Lawyer
   ____ School teacher (BA)   ____ Social worker
   ____ Doctor   ____ Minister (graduate of divinity school)

33. What was the occupation of the main supporter of the family during your childhood? ________________

34. What would you say was most emphasized by your family during your childhood?
   ____ Material things, such as money, job, business, property
   ____ Work and simple pleasures like being with the family
   ____ Art, music, literature and education
   ____ Religion, such as prayer, reading the bible, and doing good deeds
35. Have you ever had any trouble with the law?
   ______ Have had tickets for traffic violations
   ______ Have been arrested for minor offenses
   ______ Have been arrested for serious offenses
   ______ Have been in law suits
   ______ Never had any

36. As a child did your parents tell you who you could play or associate with?
   ______ Yes, they preferred to have me choose my friends from the better class of people
   ______ Not much was said one way or the other; left it up to me
   ______ No, they did not even know who I played with

37. Would you say you have had many friends or few friends in your life?
   ______ Many close friends ______ Many friends, but not intimate
   ______ Few close friends ______ Few friends, and not intimate

38. Did you know anything about tuberculosis when you found out you had it?
   ______ Yes, I had known someone who had it
   ______ Yes, I had learned about it in a class in school
   ______ Yes, I had read about it
   ______ Yes, I had heard people talking about it
   ______ No, I didn't know much about it at all

39. How do you think a person learns the most about what makes people act the way they do? (Number in order of importance, 1, 2, 3, for first three choices)
   ______ News items in the newspapers
   ______ Dealing with people directly on the job
   ______ Psychological movies or novels
   ______ Columns like "Let's Explore Your Mind," Dr. Crane, Molly Mayfield, etc.
   ______ Watching my own family and friends
   ______ Talking people over with others who know them
   ______ Psychology books
   ______ Can't ever learn much about other people
   ______ Putting myself in the place of others mentally

40. When you go to a movie or read a novel, which do you prefer?
   ______ Adventure stories ______ Mystery
   ______ Westerns ______ Love story
   ______ Musical or historical ______ Psychological

41. When you begin a new job, what has been the best way of finding out what the rules are?
   ______ Rely on past experience ______ Ask others working there
   ______ Ask the boss ______ Ask no one; just watch and see
QUESTIONNAIRE FOR FORMER TUBERCULOSIS HOSPITAL PATIENTS

Ohio State University

We would like to know something about the kind of people former tuberculosis patients are, the kinds of experiences they have had, and the way in which they think and believe about these experiences. Of course you know everyone feels differently about these things. We want to know about you. Would you please fill in or check the appropriate answers?

1. Did you know anything about tuberculosis when you found out you had it?
   — Yes, I had known someone who had it
   — Yes, I had learned about it in a class in school
   — Yes, I had read about it
   — Yes, I had heard people talk about it
   — No, I didn’t know much about it at all

2. When was the last time you were in a tuberculosis hospital?
   From ______(month) ______(year) to ______(month) ______(year)

3. How old were you when you were admitted to the hospital the last time? __________

4. How long had you lived in Franklin County at the time you were last admitted to the hospital? __________

5. What was your occupation at the time you were admitted to the hospital? ______________
   If housewife, what was your husband’s occupation? __________

6. What was your marital status?
   — Single
   — Married
   — Separated or divorced
   — Widowed

7. Sex: ______ Male ______ Female

8. Race: ______ White ______ Negro ______ Other

9. If you have ever been in a tuberculosis hospital before the last time, how many times were you admitted?
   — Never in before
   — Once before
   — Twice before
   — Three times before
   — Four times before
   — Five times before
The following statements refer to opinions regarding a number of issues about which some people agree and others disagree. Please mark each statement in the left-hand margin according to your agreement or disagreement, as follows:

- 1 Slight agreement  - 1 Slight disagreement
- 2 Moderate agreement  - 2 Moderate disagreement
- 3 Strong agreement  - 3 Strong disagreement

1. Lots of people seem to be friendly and sincere, but many of them only pretend to be that way.

2. People today are more inclined to look out for themselves at the expense of others.

3. Young, unmarried women with college degrees teaching in our public schools know less about handling children than the mothers who have learned from experience with their own children.

4. It is safer to trust nobody.

5. If several people find themselves in trouble, the best thing to do is agree upon a story and stick to it.

6. I have not lived the right kind of life or I wouldn't have had tuberculosis.

7. I usually resent the way most doctors, lawyers, teachers, and other such people try to act superior or different from the people they deal with.

8. On the whole, most of the red tape you come across today is really unnecessary.

9. In these times a person has to live pretty much for today and let tomorrow take care of itself.

10. I know more about myself than any psychiatrist or psychologist can ever know about me.

11. Even if a person has special training, a counselor who has never been married can hardly be expected to know how to advise a couple about marriage problems.

12. I often feel that I can never please the people I live with no matter how much I try.

13. I commonly wonder what hidden reason another person may have for doing something nice for me.

14. I have often had to take orders from someone who did not know as much as I did.
15. More people would have confidence in doctors if they did not treat their patients as though they could not understand anything.

16. There is not much use planning for the future since I can't do much about it anyhow.

17. I am in just as good physical condition as most of my friends.

18. I commonly wonder what hidden reason another person may have for doing something nice for me.

19. I am a good mixer.

20. I have often felt guilty because I have pretended to feel more sorry about something than I really was.

21. A person who has bad manners, habits, and breeding can hardly be expected to get along with decent people.

22. An awful lot of people are being pushed around by so-called experts.

23. The ordinary citizen could run this country as well as, if not better than, some of our present day statesmen and leaders.

24. It is all right to get around the law if you don't actually break it.

25. Most people are honest chiefly through fear of getting caught.

26. Sometimes I feel like smashing things.

27. People ought to stand up for their rights no matter who objects.

28. Most people inwardly dislike putting themselves out for other people.

29. People who are sick are sometimes treated as if they are not as good as other people.

30. I don't usually do what other people want me to do.

31. Too many people work so hard and long for what they want that they cannot enjoy life.

32. I almost always need to see the results of what I am doing immediately.
33. It is difficult for me to respect people who cannot take care of their own.

34. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching a disease or infection from them.

35. The only people who benefit from rules and regulations are the ones who get satisfaction from laying them down to others.

36. The few people who can't control themselves make it necessary for the rest of us to abide by unpleasant rules.

Please fill in or check the appropriate answer.

1. If you were a newcomer to a city and needed a doctor, which do you think you would do?
   - Ask a friend which one he goes to
   - Go to anyone in the neighborhood
   - Go to one downtown
   - Call the Physicians and Doctors Service
   - Other suggestions

2. If you had a friend who was having trouble with his marriage and he asked you what to do, what would you do?
   - Send him to his minister if he had one
   - Give him your advice
   - Refer him to a social worker in a family agency
   - Tell him it is his problem and you cannot help him

3. When your parents punished you as a child, which of the following was true in general?
   - They usually were angry at something else and took it out on me
   - They never bothered to find out if I was really guilty
   - I often did not know what I had done wrong
   - I felt they didn’t punish me as often as I deserved it
   - They usually explained why they were doing it and made it seem reasonable
   - They never punished me

4. What was the last year of school that you completed?
   - Less than 8 years
   - Eighth grade
   - Less than 4 years of high school
   - Graduated high school
   - Business school or college
5. When you went to work on your last job, did you know anything about it beforehand?

   Yes, I had friends working at the same place
   Yes, I talked to the people who hired me about what it would be like
   Yes, it was very much like a job I had before
   No, I hardly knew anything about what to expect
APPENDIX II

THE FINAL QUESTIONNAIRE AND LETTER

Part A. Final Questionnaire

Item Number

1, 2, 3. Questionnaire number

QUESTIONNAIRE FOR FORMER TUBERCULOSIS HOSPITAL PATIENTS

Ohio State University
Department of Sociology

WE WOULD LIKE TO KNOW SEVERAL THINGS ABOUT YOU WHICH WE HOPE WILL GIVE A BETTER UNDERSTANDING OF TUBERCULOSIS HOSPITAL PATIENTS. FIRST, HERE ARE A FEW QUESTIONS ABOUT YOUR REACTION TO FINDING OUT YOU HAD TB AND ABOUT YOUR DECISION TO GO TO THE HOSPITAL. WILL YOU PLEASE CHECK THE CORRECT ANSWER WHEREVER POSSIBLE, OR WRITE IN THE ANSWER WHERE IT IS NECESSARY?

4, 5. When was the last time you were in a tuberculosis hospital? (Write in)

From: ___________________________(month) ___________________________(year)

To: ___________________________(month) ___________________________(year)

2. How old were you when you were admitted to the hospital the last time?

   Under 15 years  25-29   40-44  55-59
   15-19        30-34  45-49  60-64
   20-24        35-39  50-54  65 years
   and over

3. Did you know anything about TB when you found out you had it?

   Yes   If your answer is Yes, how had you learned about it?

   No    I had known someone who had it
   ______ I had learned about it in a class in school
   ______ I had read about it
   ______ I had heard people talking about it

   - 121 -
4. Which one statement most closely represents the way you felt when you first found out you had TB? (We realize you must have had a mixture of feelings, but try to separate out the one which was uppermost)

   I could hardly believe it had happened to me
   I was somewhat relieved to know because I had suspected it
   I was frightened and afraid
   I was not too disturbed by it even though it was a surprise

5. Were you told before you decided to go to the hospital about how long you might have to stay?

   No, I never asked at the time
   No, I asked but was not told how long it would be
   Yes, I asked the doctor and he told me
   Yes, the doctor told me before I had a chance to ask him

   If you were told, did the doctor tell you correctly or incorrectly in terms of how long it actually took?

   He told me longer than it took
   He told me the same length of time it actually took
   He told me it would take less time than it took

6. How long after you found out you had TB did it take you to decide to go to the hospital the first time you were admitted?

   Decided immediately
   About a week
   About a month
   Longer than a month

7. What one thing do you think was most important in your decision to go to the hospital when you went the last time?

   I was feeling very sick and did not care what happened to me
   I thought I would get well faster by being under the constant supervision of doctors and nurses
   I had no one to take care of me at home
   I wanted to be with other sick people
   It would have put my family to too much trouble for me to be treated at home
   Staying at home seemed to present a danger to my family

8. Which one of the following things most concerned you when you first found out you had TB?

   I knew I would not be able to continue working
   I thought my friends and associates would avoid me if they found out
   I was afraid I would never be the same person that I had been
9. If you had ever been admitted to a TB hospital before, how many times?
   Never before  Two times  Four times
   Once  Three times  Five or more

10. What was your occupation when you were admitted to the hospital the last time? (Be specific, like "A clerk in a department store" or "A used car salesman," etc. stating place of work as well as title)

11. Which one of the following people most influenced your decision to go to the hospital the last time you went as a patient?
   Parent  Minister
   Family doctor  Husband or wife
   Friend  Doctor who diagnosed (if not same as family Dr.)
   Boss  My child or children
   Brother or sister  Public health nurse
   No one—it was entirely my own decision; in other words, I knew as soon as I was told that I had TB that I would go to the hospital

12. What was your marital status when you last went in the hospital?
   Single  Married  Separated or divorced  Widowed

13. Who was the person who objected most strongly to your going to the TB hospital the last time you went in as a patient?
   Husband or wife  Children
   Friends or business associates  Boss or supervisor
   Brother or sister  Parents
   No one—everyone seemed to think I should go

14. What is your sex?  Male  Female

15. What is your race?  White  Negro  Other
16. Do you think people with TB should ever be forced to go or stay in the hospital? Which ones, if any?

____ Everyone who has TB who does not agree to go of his own free will
____ Only people who do not have a good home where they can be properly treated
____ Only people who do not seem to have the good sense or intelligence to keep their disease to themselves (like drunks and bums for example)
____ No one should ever be forced to go

IN THIS NEXT SECTION WE HAVE INCLUDED SOME STATEMENTS REGARDING SEVERAL TOPICS ABOUT WHICH WE ALL HAVE VARIOUS OPINIONS. WE KNOW YOU MAY NOT ALWAYS BE ABLE TO SEE HOW SOME OF THESE THINGS ARE IMPORTANT FOR OUR STUDY, BUT WE HOPE YOU CAN UNDERSTAND THAT WE NEED TO KNOW AS MUCH ABOUT FORMER TB PATIENTS AS YOU CAN TELL US, IF WE ARE TO FIND OUT HOW BEST TO HELP OTHER PATIENTS. WILL YOU PLEASE CIRCLE "A" IF YOU AGREE WITH THE STATEMENT AND "D" IF YOU DISAGREE WITH THE STATEMENT?

About nurses in general:
29, A D 1. Nurses try to act more important than they are.
30, A D 2. The work nurses do is not properly appreciated.
31, A D 3. Nurses act like sick people are inferior to other people.
   A D 4. Nurses have a great deal of technical knowledge.
   A D 5. Nurses are devoted to their duty.
   A D 6. Nurses are people who do the dirty work of doctors.

Do you think your opinion of nurses was different before you were in the TB hospital? ____ Yes ____ No

About the TB hospital:
33, A D 1. On the whole, the food was poorly prepared.
34, A D 2. You cannot expect to be treated as nice by the staff in a county hospital as you would be in a private hospital.
   A D 3. The patients are the hardest people to get along with.
   A D 4. Conditions could be improved if some of the rules were not so strictly enforced.
   A D 5. On the whole, the hospital is managed as well as any other.
   A D 6. It seems ridiculous to place patients with active TB in beds next to those who are not active.

About Doctors in general:
36, A D 1. Doctors do more good for humanity than anyone else.
37, A D 2. Doctors tend to act superior to their patients.
38 A D 3. Doctors today seem to be more interested in money than in their patients.
AD 4. Doctors ought to be respected by everyone.
AD 5. It is difficult to find a doctor you can really trust.
AD 6. Doctors cannot be expected to tell their patients much since they have so much technical knowledge that only another doctor could understand.
AD 7. Doctors ought to tell their patients the truth no matter how bad it is.
AD 8. Too many doctors treat their patients as if they were not capable of understanding anything.

Do you think your opinions about doctors are different since you have been in the TB hospital?

Yes  No

About yourself:

AD 1. I have not lived the right kind of life or I would not have had TB.
AD 2. I felt a difference in my family's attitude toward me after I had TB.
AD 3. I often feel I can never please the people I live with no matter how hard I try.
AD 4. I know more about myself than anybody else can ever know about me, including a psychologist or psychiatrist.
AD 5. I commonly wonder what hidden reason another person may have for doing something nice for me.

About other people:

AD 1. A person who has bad manners, habits and breeding can hardly be expected to get along with decent people.
AD 2. The people who benefit most from rules and regulations are the ones who get satisfaction from laying them down to others.
AD 3. People today are more inclined to look out for themselves at the expense of others.
AD 4. The few people who cannot control themselves make it necessary for the rest of us to abide by unpleasant rules.

About life in our modern world:

AD 1. In these times a person has to live pretty much for today and let tomorrow take care of itself.
AD 2. Young, unmarried women with college degrees teaching in our public schools know less about handling children than the mothers who have learned from experience with their own children.
AD 3. An awful lot of people are being pushed around by so-called experts.
AD 4. On the whole, most of the red tape you come across today is really not necessary.
AD 5. It is all right to get around the law if you do not actually break it.
IN THIS LAST SECTION WE WOULD LIKE TO ASK YOU SOMETHING ABOUT THE KINDS OF EXPERIENCES YOU HAD BEFORE YOU ENTERED THE TB HOSPITAL, ESPECIALLY YOUR EARLY LIFE. YOU ALL KNOW HOW IMPORTANT YOUR BACKGROUND IS WHEN YOU FIRST GET ACQUAINTED WITH SOMEONE OR WHEN YOU FIND YOURSELF IN A NEW PLACE. MANY OF THESE THINGS HAPPENED LONG AGO AND MAY BE DIFFICULT FOR YOU TO REMEMBER EXACTLY, BUT WILL YOU PLEASE TRY TO ANSWER AS YOU REMEMBER THEM TODAY?

49. How many children besides yourself were there in the family in which you grew up? (write in the correct number)
   - Number of boys older than myself
   - Number of boys younger than myself
   - Number of girls older than myself
   - Number of girls younger than myself

50. How old were you when you left the home of your original family on your own?
   - Under 15 years
   - 15-19
   - 20-24
   - 25-29
   - Over 30 years old
   - Still living at home

51. How did your family feel about calling in or going to doctors?
   - They believed in yearly check-ups by our family physician
   - They went to a doctor or called him in immediately in cases of severe pain, minor ailments, accidents, etc.
   - They delayed going or calling a doctor, but did when trouble persisted or when everything else failed to help.
   - They never went or called a doctor in.

52. How did your family feel about your leaving home?
   - One or both parents were against it (cross out one that does not apply)
   - One or both parents made me feel I had to leave
   - One or both parents did not seem to care one way or the other
   - One or both parents helped me to leave

53. In general, how do you feel about the way your parents treated you (and the other children if there were any)?
   - They provided us with the necessities of life, nothing more.
   - They gave their children everything they could.
   - They had favorites among their children.
   - They treated all their children alike.
   - They forgot about the children when they were involved in their own affairs.
   - They were devoted to their children.
6. As a child do you recall to which parent you most frequently gave your confidence?
   ____To my father  ____To my mother  ____To neither

7. As an adult, how had your health been until the time your TB was discovered?
   ____Poor  ____Average  ____Excellent

8. Have you been married more than once?  ____Yes  ____No

10. When your parents punished you as a child, which of the following was true in most cases?
    ____They never bothered to find out if I was really guilty
    ____I often did not know what I had done wrong
    ____They usually were angry at something else and took it out on me
    ____They usually explained why they were punishing me and made it seem reasonable
    ____They did not punish me as often as I deserved it

11. What was the last grade of school that you completed?
    ____Less than 8 grades  ____Less than 4 years of high school
    ____Eighth grade  ____Graduated high school
    ____Business school  ____College

12. When you begin a new job, which one way have you found most often to be the best way to find out what is expected of you?
    ____Rely on past experience  ____Ask no one but just watch
    ____Ask the boss or supervisor for myself
    ____Ask others working there  ____This does not apply; I never had a job

13. How do you think a person learns the most about what makes people behave in the way they do? (Number 1, 2, 3 for your first choices)
    ____Psychological novels or movies
    ____News items in the newspapers
    ____Dealing with them directly on the job
    ____Watching my friends and family
    ____Talking them over with others who know them
    ____Putting myself in their place mentally

14. What have you usually done in the past when you had disagreements with your boss?
    ____I usually kept my complaints to myself
    ____I usually complained to other workers to get it off my chest
    ____I usually came right out and told them how I felt regardless of the results
    ____I seldom disagree; I usually feel they are right
Dear

Will you help with some important research in tuberculosis?

Will you provide information on the enclosed questionnaire about your own experiences -- information which you and only you as a former TB patient can give?

As you know, in Franklin County alone hundreds of people are admitted to the tuberculosis hospital every year, and as you also know this includes all kinds of people. With your assistance we may be able to furnish the TB field with some much-needed data on a little-known subject: the needs of hospitalized tuberculosis patients.

You may be wondering why we are writing you. We are asking everyone who has been discharged from Benjamin Franklin Hospital between 1951 and 1953 to participate in this valuable project -- if not now, at a later date. This research, like all scientific studies, has several theories -- one of ours is that TB patients are not much different from other people in many ways; that they are cooperative and capable. Only you can help establish this point, and at the same time furnish valuable information leading to more comfortable hospitalization for future patients, by answering the questionnaire and returning it in the stamped envelope -- before ten days if convenient.

All information will be held strictly confidential. Results will be compiled ONLY in statistical or graph form. We do
NOT want you to sign your name.

We shall be grateful for your cooperation.

Sincerely,

Emily M. Westerkamm
Department of Sociology
Ohio State University

P. S. To get accurate results, we need an answer from EVERY person. If you need help with filling in the questions, please do not hesitate to telephone me at UN 3148 ext. 8311. I would be glad to talk to you on the phone or stop by your home and help with the questionnaire. Thanks again for your help.

EMW
Part C. Follow-up Letter on Final Questionnaire

THE OHIO STATE UNIVERSITY
Department of Sociology

June 17, 1954

Dear

It has now been a month since I sent a questionnaire to you and all the other patients who had been discharged from Benjamin Franklin Hospital between 1951 and 1953.

Many of you have already completed the questionnaire and mailed it back, and I am grateful for your prompt cooperation. Since you were asked not to identify yourself on the questionnaire unless you desired to do so, I have no way of knowing who has already returned the questionnaire and who has not. If you have returned your completed questionnaire, please disregard this appeal.

If you have not yet filled out the questionnaire, may I remind you that an answer from everyone is important. I can think of many reasons why you have not returned it. Perhaps you do not like to recall unpleasant experiences; perhaps the questionnaire looks long and complicated; perhaps you think the questions are not very important. I am sure you are interested in making it as easy as possible for others to avoid some of the difficulties you encountered as a result of having TB. Also I am sure that once you start on the questionnaire you will be surprised to find it is almost fun to fill out. I shall be happy to send the results of the study (in statistical form ONLY—no individual cases will be reported on) to anyone who requests them.

Since you may have misplaced the first questionnaire I mailed you, I am sending you another copy. Will you please take a few minutes to answer the questions and return the questionnaire in the stamped envelope?

Sincerely,

Emily M. Westerkamm
Department of Sociology
Ohio State University

P.S. Again may I suggest that if you need help, or prefer to talk with me on the telephone or at your home, you may phone me at UN 3148, extension 8311 before noon any day. Thanks again for your help.

EMW
Many of you have already mailed back the questionnaire I sent you last week. I wish to thank you again for your help.

But the questionnaire is not easy to fill in, and it may not be obvious to you how important some of the information is. Then too, we are all busy and forget about these things in spite of the best intentions. If you have not filled out the questionnaire, would you please take a few minutes and do it now? An answer from everyone is needed.

Thanks,

Emily Westerkamn
# APPENDIX III

**Frequency Distributions by Items Not Related to the Hypotheses**

## Table I

**Distribution by Age, Sex, Race and Length of Stay, For the Matched Groups**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Experimental</td>
<td>B. Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 Months</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4-7 Mo.</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8-11 Mo.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12-15 Mo.</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16-19 Mo.</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>20-24 Mo.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>25-29 Mo.</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>30-34 Mo.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>35-39 Mo.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>40-44 Mo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>45-49 Mo.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>
## TABLE 2
DISTRIBUTION BY AGE

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 24</td>
<td>6</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>25 - 39</td>
<td>10</td>
<td>10</td>
<td>28</td>
</tr>
<tr>
<td>40 - 54</td>
<td>29</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>55+</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
<tr>
<td>Mean</td>
<td>35.27</td>
<td>35.27</td>
<td>35.69</td>
</tr>
<tr>
<td>S. D.</td>
<td>13.01</td>
<td>13.01</td>
<td>12.34</td>
</tr>
</tbody>
</table>

## TABLE 3
DISTRIBUTION BY SEX

<table>
<thead>
<tr>
<th>Sex</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>30</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>27</td>
<td>37</td>
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<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

## TABLE 4
DISTRIBUTION BY RACE

<table>
<thead>
<tr>
<th>Race</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>43</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>Colored</td>
<td>12</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
<tr>
<td>Months</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>70 - 79</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>60 - 69</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>50 - 59</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>40 - 49</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>30 - 39</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>20 - 29</td>
<td>5</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>10 - 19</td>
<td>17</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>0 - 9</td>
<td>30</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
<td><strong>55</strong></td>
<td><strong>69</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>7.36</td>
<td>7.36</td>
<td>13.57</td>
</tr>
<tr>
<td><strong>S. D.</strong></td>
<td>4.58</td>
<td>4.58</td>
<td>7.55</td>
</tr>
</tbody>
</table>

**TABLE 6**

DISTRIBUTION BY PREVIOUS ADMISSIONS

<table>
<thead>
<tr>
<th>Previous Admissions</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>39</td>
<td>42</td>
<td>43</td>
</tr>
<tr>
<td>One or more</td>
<td>15</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>No data</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
<td><strong>55</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>
APPENDIX IV

FREQUENCY DISTRIBUTIONS, PERCENTAGES, AND CHI SQUARES
ON ITEMS DESIGNED TO TEST THE HYPOTHESES

TABLE 1
HYPOTHESIS NO. 1, ITEM NO. 24: WHAT WAS YOUR MARITAL STATUS WHEN YOU LAST WENT IN THE HOSPITAL?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Married</td>
<td>34</td>
<td>61.8</td>
<td>32</td>
</tr>
<tr>
<td>Divorced</td>
<td>15</td>
<td>27.3</td>
<td>6</td>
</tr>
<tr>
<td>Single and widowed</td>
<td>6</td>
<td>10.9</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 14.364 D. of F. 4  Level of Significance .01
### TABLE 2

**HYPOTHESIS NO. I, ITEM NO. 25: WHO WAS THE PERSON WHO OBJECTED MOST STRONGLY TO YOUR GOING TO THE TB HOSPITAL THE LAST TIME YOU WENT IN AS A PATIENT.**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No one</td>
<td>44</td>
<td>46</td>
<td>56</td>
</tr>
<tr>
<td>Family and friends</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>No data</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square: .215  D. of F.: 2  Level of Significance: .90

### TABLE 3

**HYPOTHESIS NO. I, ITEM NO. 40, 41, 42-3: I OFTEN FEEL I CAN NEVER PLEASE THE PEOPLE I LIVE WITH NO MATTER HOW HARD I TRY.**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>15</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Disagree</td>
<td>31</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>No answer</td>
<td>9</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square: 10.31  D. of F.: 4  Level of Significance: .05
### TABLE 4

**HYPOTHESIS NO. I, ITEM NO. 40, 41, 42-5: I COMMONLY WONDER WHAT HIDDEN REASON ANOTHER PERSON MAY HAVE FOR DOING SOMETHING NICE FOR ME.**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>30.9</td>
<td>18</td>
</tr>
<tr>
<td>Disagree</td>
<td>27</td>
<td>49.0</td>
<td>30</td>
</tr>
<tr>
<td>No answer</td>
<td>11</td>
<td>20.0</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 4.061 D. of F. 4 Level of Significance .40

### TABLE 5

**HYPOTHESIS NO. I, ITEM NO. 43, 44, 45-3: PEOPLE TODAY ARE MORE INCLINED TO LOOK OUT FOR THEMSELVES AT THE EXPENSE OF OTHERS.**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>41.8</td>
<td>37</td>
</tr>
<tr>
<td>Disagree</td>
<td>18</td>
<td>32.7</td>
<td>11</td>
</tr>
<tr>
<td>No answer</td>
<td>14</td>
<td>25.5</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 9.586 D. of F. 4 Level of Significance .05
TABLE 6
HYPOTHESIS NO. I, ITEM NO. 49: HOW MANY CHILDREN BESIDES YOURSELF WERE THERE IN THE FAMILY IN WHICH YOU GREW UP?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Only child</td>
<td>7</td>
<td>12.7</td>
<td>3</td>
</tr>
<tr>
<td>Oldest</td>
<td>12</td>
<td>21.8</td>
<td>7</td>
</tr>
<tr>
<td>Youngest</td>
<td>12</td>
<td>21.8</td>
<td>14</td>
</tr>
<tr>
<td>Middle</td>
<td>24</td>
<td>43.6</td>
<td>29</td>
</tr>
<tr>
<td>No Data</td>
<td>0</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 4.859  D. of F. 8  Level of Significance .80

TABLE 7
HYPOTHESIS NO. I, ITEM NO. 58, 59, 60: IN GENERAL, HOW DO YOU FEEL ABOUT THE WAY YOUR PARENTS TREATED YOU (AND THE OTHER CHILDREN IF THERE WERE ANY)?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Very favorable</td>
<td>14</td>
<td>26.9</td>
<td>19</td>
</tr>
<tr>
<td>Favorable</td>
<td>17</td>
<td>32.7</td>
<td>20</td>
</tr>
<tr>
<td>Neutral</td>
<td>11</td>
<td>21.2</td>
<td>9</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>4</td>
<td>7.7</td>
<td>2</td>
</tr>
<tr>
<td>Very unfavor-</td>
<td>6</td>
<td>19.2</td>
<td>3</td>
</tr>
<tr>
<td>able</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td>53</td>
</tr>
</tbody>
</table>

Chi Square 7.370  D. of F. 6  Level of Significance .30
### TABLE 8

**HYPOTHESIS NO. 1, ITEM NO. 61: AS A CHILD DO YOU RECALL TO WHICH PARENT YOU MOST FREQUENTLY GAVE YOUR CONFIDENCE?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>One or both</td>
<td>38</td>
<td>71.7</td>
<td>43</td>
</tr>
<tr>
<td>Neither</td>
<td>15</td>
<td>28.3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>52</td>
<td>52</td>
</tr>
</tbody>
</table>

Chi Square 2.801  D. of F. 2  Level of Significance .30

### TABLE 9

**HYPOTHESIS NO. 1, ITEM NO. 63: HAVE YOU BEEN MARRIED MORE THAN ONCE?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>One</td>
<td>28</td>
<td>51.8</td>
<td>32</td>
</tr>
<tr>
<td>More than one</td>
<td>19</td>
<td>35.2</td>
<td>10</td>
</tr>
<tr>
<td>Never</td>
<td>7</td>
<td>13.0</td>
<td>12</td>
</tr>
<tr>
<td>No data</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 8.196  D. of F. 4  Level of Significance .10
TABLE 10

**HYPOTHESIS NO. I, ITEM NO. 64: WHEN YOUR PARENTS PUNISHED YOU AS A CHILD, WHICH WAS TRUE IN MOST CASES?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Most favorable</td>
<td>23</td>
<td>44.2</td>
<td>23</td>
</tr>
<tr>
<td>Favorable</td>
<td>7</td>
<td>13.5</td>
<td>11</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>10</td>
<td>19.2</td>
<td>13</td>
</tr>
<tr>
<td>Most unfavorable</td>
<td>12</td>
<td>23.1</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>52</td>
<td></td>
<td>52</td>
</tr>
</tbody>
</table>

Chi Square 8.584  D. of F. 6  Level of Significance .07

TABLE 11


<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Observation</td>
<td>29</td>
<td>52.7</td>
<td>26</td>
</tr>
<tr>
<td>Indirect</td>
<td>6</td>
<td>10.9</td>
<td>11</td>
</tr>
<tr>
<td>Empathy</td>
<td>11</td>
<td>20.0</td>
<td>12</td>
</tr>
<tr>
<td>No data</td>
<td>9</td>
<td>16.4</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 2.588  D. of F. 4  Level of Significance .70
TABLE 12

HYPOTHESIS NO. I, ITEM NO. 70: WHAT HAVE YOU USUALLY DONE IN THE PAST WHEN YOU HAD DISAGREEMENTS WITH YOUR BOSS?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>None</td>
<td>14</td>
<td>25.4</td>
<td>24</td>
</tr>
<tr>
<td>Repressed</td>
<td>9</td>
<td>16.4</td>
<td>14</td>
</tr>
<tr>
<td>Expressed</td>
<td>24</td>
<td>43.6</td>
<td>13</td>
</tr>
<tr>
<td>Not apply</td>
<td>6</td>
<td>10.9</td>
<td>3</td>
</tr>
<tr>
<td>No data</td>
<td>2</td>
<td>3.6</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 9.629 D. of F. 4 Level of Significance .05

TABLE 13

HYPOTHESIS NO. II, ITEM NO. 10: WERE YOU TOLD BEFORE YOU DECIDED TO GO TO THE HOSPITAL ABOUT HOW LONG YOU MIGHT HAVE TO STAY?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Never asked</td>
<td>10</td>
<td>18.2</td>
<td>10</td>
</tr>
<tr>
<td>Asked</td>
<td>31</td>
<td>56.4</td>
<td>36</td>
</tr>
<tr>
<td>No need</td>
<td>14</td>
<td>25.4</td>
<td>8</td>
</tr>
<tr>
<td>No data</td>
<td>0</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 4.282 D. of F. 4 Level of Significance .40
TABLE 14

HYPOTHESIS NO. II, ITEM NO. 11: IF YOU WERE TOLD HOW LONG YOU WOULD HAVE TO STAY, DID THE DOCTOR TELL YOU CORRECTLY OR INCORRECTLY IN TERMS OF HOW LONG IT ACTUALLY TOOK?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Over est. or correct</td>
<td>14</td>
<td>29.2</td>
<td>24</td>
</tr>
<tr>
<td>Under est.</td>
<td>17</td>
<td>35.4</td>
<td>19</td>
</tr>
<tr>
<td>No est.</td>
<td>17</td>
<td>35.4</td>
<td>11</td>
</tr>
<tr>
<td>No data (not included)</td>
<td>7</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100</td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 9.362 D. of F. 4 Level of Significance .06

TABLE 15

HYPOTHESIS NO II, ITEM NO. 13: WHAT ONE THING TO YOU THINK WAS MOST IMPORTANT IN YOUR DECISION TO GO TO THE HOSPITAL WHEN YOU WENT THE LAST TIME?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get well</td>
<td>20</td>
<td>36.4</td>
<td>24</td>
</tr>
<tr>
<td>Family</td>
<td>23</td>
<td>41.8</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>21.8</td>
<td>9</td>
</tr>
<tr>
<td>No data (not included)</td>
<td>0</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100</td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 1.276 D. of F. 4 Level of Significance .90
TABLE 16

HYPOTHESIS NO. II, ITEM NO. 29, 30, 31-1: NURSES TRY TO ACT MORE IMPORTANT THAN THEY ARE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A Number</th>
<th>Percent</th>
<th>Matched Control Group B Number</th>
<th>Percent</th>
<th>Unmatched Control Group C Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>17</td>
<td>30.9</td>
<td>13</td>
<td>23.6</td>
<td>14</td>
<td>20.3</td>
</tr>
<tr>
<td>Disagree</td>
<td>29</td>
<td>52.7</td>
<td>36</td>
<td>65.5</td>
<td>46</td>
<td>66.7</td>
</tr>
<tr>
<td>No answer</td>
<td>9</td>
<td>16.4</td>
<td>6</td>
<td>10.9</td>
<td>9</td>
<td>13.0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
<td></td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Chi Square</td>
<td>2.585</td>
<td>D. of F. 4</td>
<td>Level of Significance .50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 17

HYPOTHESIS NO. II, ITEM NO. 29, 30, 31-4: NURSES HAVE A GREAT DEAL OF TECHNICAL KNOWLEDGE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A Number</th>
<th>Percent</th>
<th>Matched Control Group B Number</th>
<th>Percent</th>
<th>Unmatched Control Group C Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>27</td>
<td>49.1</td>
<td>41</td>
<td>74.5</td>
<td>48</td>
<td>69.6</td>
</tr>
<tr>
<td>Disagree</td>
<td>11</td>
<td>20.0</td>
<td>7</td>
<td>12.7</td>
<td>9</td>
<td>13.0</td>
</tr>
<tr>
<td>No answer</td>
<td>17</td>
<td>30.9</td>
<td>7</td>
<td>12.7</td>
<td>12</td>
<td>17.4</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
<td></td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Chi Square</td>
<td>9.359</td>
<td>D. of F. 4</td>
<td>Level of Significance .06</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 18

**HYPOTHESIS NO. II, ITEM NO. 29, 30, 31-5: NURSES ARE DEVOTED TO THEIR DUTY**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>28</td>
<td>50.9</td>
<td>42</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>18.2</td>
<td>9</td>
</tr>
<tr>
<td>No answer</td>
<td>17</td>
<td>30.9</td>
<td>4</td>
</tr>
</tbody>
</table>

Total 55 55 69

Chi Square 14.026 D. of F. 4 Level of Significance .01

### TABLE 19

**HYPOTHESIS NO. II, ITEM NO. 29, 30, 31-6: NURSES ARE PEOPLE WHO DO THE DIRTY WORK OF DOCTORS.**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>11</td>
<td>20.0</td>
<td>10</td>
</tr>
<tr>
<td>Disagree</td>
<td>32</td>
<td>58.2</td>
<td>39</td>
</tr>
<tr>
<td>No answer</td>
<td>12</td>
<td>21.8</td>
<td>6</td>
</tr>
</tbody>
</table>

Total 55 55 69

Chi Square 4.607 D. of F. 4 Level of Significance .20
TABLE 20

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-1: DOCTORS DO MORE GOOD FOR HUMANITY THAN ANYONE ELSE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>36</td>
<td>65.4</td>
<td>33</td>
</tr>
<tr>
<td>Disagree</td>
<td>8</td>
<td>14.6</td>
<td>15</td>
</tr>
<tr>
<td>No answer</td>
<td>11</td>
<td>20.0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Chi Square</td>
<td>3.448</td>
<td>D. of F. 4</td>
<td>Level of Significance</td>
</tr>
</tbody>
</table>

TABLE 21

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-2: DOCTORS TEND TO ACT SUPERIOR TO THEIR PATIENTS.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>21</td>
<td>38.2</td>
<td>19</td>
</tr>
<tr>
<td>Disagree</td>
<td>17</td>
<td>30.9</td>
<td>24</td>
</tr>
<tr>
<td>No Answer</td>
<td>17</td>
<td>30.9</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Chi Square</td>
<td>14.056</td>
<td>D. of F. 4</td>
<td>Level of Significance</td>
</tr>
</tbody>
</table>
TABLE 22

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-3: DOCTORS TODAY SEEM MORE INTERESTED IN MONEY THAN IN THEIR PATIENTS.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>30.9</td>
<td>16</td>
</tr>
<tr>
<td>Disagree</td>
<td>18</td>
<td>32.7</td>
<td>29</td>
</tr>
<tr>
<td>No answer</td>
<td>20</td>
<td>36.4</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 49.792  D. of F. 4  Level of Significance .01

TABLE 23

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-4: DOCTORS OUGHT TO BE RESPECTED BY EVERYONE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>35</td>
<td>63.6</td>
<td>47</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>10.9</td>
<td>3</td>
</tr>
<tr>
<td>No answer</td>
<td>14</td>
<td>25.5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 12.884  D. of F. 4  Level of Significance .05
TABLE 24
HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-5: IT IS DIFFICULT TO FIND A DOCTOR YOU CAN REALLY TRUST.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>24</td>
<td>43.6</td>
<td>17</td>
</tr>
<tr>
<td>Disagree</td>
<td>21</td>
<td>38.2</td>
<td>33</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 20.878 D. of F. 4 Level of Significance .01

TABLE 25
HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-6: DOCTORS CANNOT BE EXPECTED TO TELL THEIR PATIENTS MUCH SINCE THEY HAVE SO MUCH TECHNICAL KNOWLEDGE THAT ONLY ANOTHER DOCTOR COULD UNDERSTAND.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>7</td>
<td>12.7</td>
<td>19</td>
</tr>
<tr>
<td>Disagree</td>
<td>31</td>
<td>56.4</td>
<td>30</td>
</tr>
<tr>
<td>No answer</td>
<td>17</td>
<td>30.9</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 13.464 D. of F. 4 Level of Significance .01
TABLE 26

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-7: DOCTORS OUGHT TO TELL PATIENTS THE TRUTH NO MATTER HOW BAD IT IS.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>37</td>
<td>67.3</td>
<td>33</td>
</tr>
<tr>
<td>Disagree</td>
<td>8</td>
<td>14.5</td>
<td>18</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 6.602  D. of F. 4  Level of Significance .10

TABLE 27

HYPOTHESIS NO. II, ITEM NO. 36, 37, 38-8: TOO MANY DOCTORS TREAT THEIR PATIENTS AS IF THEY WERE NOT CAPABLE OF UNDERSTANDING ANYTHING.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>36</td>
<td>65.5</td>
<td>31</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>12.7</td>
<td>19</td>
</tr>
<tr>
<td>No answer</td>
<td>12</td>
<td>21.8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 9.820  D. of F. 4  Level of Significance .05
TABLE 28

HYPOTHESIS NO. II, ITEM NO. 40, 41, 42-4: I KNOW MORE ABOUT MYSELF THAN ANYBODY ELSE CAN EVER KNOW ABOUT ME, INCLUDING A PSYCHIATRIST.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>32.7</td>
<td>18</td>
</tr>
<tr>
<td>Disagree</td>
<td>27</td>
<td>49.1</td>
<td>30</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square .982  D. of F. 4  Level of Significance .90

TABLE 29

HYPOTHESIS NO. II, ITEM NO. 46, 47, 48-2: YOUNG, UNMARRIED WOMEN WITH COLLEGE DEGREES TEACHING IN OUR PUBLIC SCHOOLS KNOW LESS ABOUT HANDLING CHILDREN THAN THE MOTHERS WHO HAVE LEARNED FROM EXPERIENCE WITH THEIR OWN CHILDREN

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>33</td>
<td>60.0</td>
<td>22</td>
</tr>
<tr>
<td>Disagree</td>
<td>14</td>
<td>25.5</td>
<td>24</td>
</tr>
<tr>
<td>No answer</td>
<td>8</td>
<td>14.5</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 5.108  D. of F. 4  Level of Significance .15
TABLE 30
HYPOTHESIS NO. II, ITEM NO. 46, 47, 48-3: AN AWFUL LOT OF PEOPLE ARE BEING PUSHED AROUND BY SO-CALLED EXPERTS.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>31</td>
<td>56.4</td>
<td>29</td>
</tr>
<tr>
<td>Disagree</td>
<td>14</td>
<td>25.4</td>
<td>19</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 5.423  D. of F. 4  Level of Significance .15

TABLE 31
HYPOTHESIS NO. II, ITEM NO. 56: HOW DID YOUR FAMILY FEEL ABOUT CALLING IN OR GOING TO DOCTORS?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Yearly</td>
<td>9</td>
<td>16.7</td>
<td>16</td>
</tr>
<tr>
<td>Immediately</td>
<td>28</td>
<td>51.8</td>
<td>18</td>
</tr>
<tr>
<td>Delayed or never went</td>
<td>17</td>
<td>31.5</td>
<td>19</td>
</tr>
<tr>
<td>No data (not included)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 4.22  D. of F. 6  Level of Significance .40
### TABLE 32

**HYPOTHESIS NO II, ITEM NO. 65: WHAT WAS THE LAST GRADE OF SCHOOL THAT YOU COMPLETED?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Eight and under</td>
<td>24</td>
<td>45.3</td>
<td>18</td>
</tr>
<tr>
<td>High School</td>
<td>23</td>
<td>43.4</td>
<td>30</td>
</tr>
<tr>
<td>Additional</td>
<td>6</td>
<td>11.3</td>
<td>6</td>
</tr>
<tr>
<td>No data</td>
<td>2</td>
<td>11.3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 6.606 D. of F. 4 Level of Significance .15

### TABLE 33

**HYPOTHESIS NO. III, ITEM NO. 8: DID YOU KNOW ANYTHING ABOUT TB WHEN YOU FOUND OUT YOU HAD IT?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>None</td>
<td>22</td>
<td>40.0</td>
<td>23</td>
</tr>
<tr>
<td>Some</td>
<td>33</td>
<td>60.0</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square .434 D. of F. 2 Level of Significance .95
TABLE 34
HYPOTHESIS NO. III, ITEM NO. 8: HOW HAD YOU LEARNED ABOUT IT?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Formal</td>
<td>8</td>
<td>14.5</td>
<td>13</td>
</tr>
<tr>
<td>Direct</td>
<td>20</td>
<td>36.4</td>
<td>14</td>
</tr>
<tr>
<td>Indirect</td>
<td>5</td>
<td>9.1</td>
<td>5</td>
</tr>
<tr>
<td>None</td>
<td>22</td>
<td>40.0</td>
<td>23</td>
</tr>
<tr>
<td>No data</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 4.350  D. of F. 4  Level of Significance .80

TABLE 35
HYPOTHESIS NO. III, ITEM NO. 9: WHICH ONE STATEMENT MOST CLOSELY REPRESENTS THE WAY YOU FELT WHEN YOU FIRST FOUND OUT YOU HAD TB?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Disbelief</td>
<td>17</td>
<td>31.5</td>
<td>19</td>
</tr>
<tr>
<td>Relief</td>
<td>8</td>
<td>14.5</td>
<td>7</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>18</td>
<td>40.0</td>
<td>16</td>
</tr>
<tr>
<td>Fear</td>
<td>11</td>
<td>20.4</td>
<td>13</td>
</tr>
<tr>
<td>No data (not included)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 4.633  D. of F. 6  Level of Significance .20
### TABLE 36

**HYPOTHESIS NO. III, ITEM NO. 14: WHICH ONE OF THE FOLLOWING THINGS MOST CONCERNED YOU WHEN YOU FIRST FOUND OUT YOU HAD TB?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Could not work</td>
<td>25</td>
<td>45.5</td>
<td>28</td>
</tr>
<tr>
<td>Avoided by friends</td>
<td>5</td>
<td>9.1</td>
<td>8</td>
</tr>
<tr>
<td>Not same person</td>
<td>16</td>
<td>29.1</td>
<td>13</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>5.4</td>
<td>3</td>
</tr>
<tr>
<td>Combinations</td>
<td>5</td>
<td>9.1</td>
<td>1</td>
</tr>
<tr>
<td>No data</td>
<td>1</td>
<td>1.8</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 2.046  D. of F.  4  Level of Significance .75

### TABLE 37

**HYPOTHESIS NO. III, ITEM NO. 17, 18-19, 20-21, 22: WHAT WAS YOUR OCCUPATION?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>93-70</td>
<td>7</td>
<td>14.0</td>
<td>6</td>
</tr>
<tr>
<td>69-60</td>
<td>24</td>
<td>48.0</td>
<td>28</td>
</tr>
<tr>
<td>59-50</td>
<td>17</td>
<td>34.0</td>
<td>11</td>
</tr>
<tr>
<td>49-33</td>
<td>2</td>
<td>4.0</td>
<td>6</td>
</tr>
<tr>
<td>No data</td>
<td>(omitted)</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 17.151  D. of F.  6  Level of Significance .01
TABLE 38

HYPOTHESIS NO. III, ITEM NO. 29, 30, 31-3: NURSES ACT LIKE SICK PEOPLE ARE INFERIOR TO OTHER PEOPLE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>16  29.1</td>
<td>13  23.6</td>
<td>12  17.4</td>
</tr>
<tr>
<td>Disagree</td>
<td>25  45.4</td>
<td>36  65.4</td>
<td>45  65.2</td>
</tr>
<tr>
<td>No answer</td>
<td>14  25.4</td>
<td>6   10.9</td>
<td>12  17.4</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 7.687 D. of F. 4 Level of Significance .06

TABLE 39

HYPOTHESIS NO. III, ITEM NO. 33, 34, 35-2: YOU CANNOT EXPECT TO BE TREATED AS NICE BY THE STAFF IN A COUNTY HOSPITAL AS YOU WOULD BE IN A PRIVATE HOSPITAL.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>20  36.4</td>
<td>18  32.7</td>
<td>20  29.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>26  47.3</td>
<td>32  58.2</td>
<td>39  56.5</td>
</tr>
<tr>
<td>No answer</td>
<td>9   16.3</td>
<td>5   9.1</td>
<td>10  14.5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 5.325 D. of F. 4 Level of Significance .20
TABLE 40
HYPOTHESIS NO. III, ITEM NO. 33, 34, 35-6: IT SEEMS RIDICULOUS TO PLACE PATIENTS WITH ACTIVE TB IN BEDS NEXT TO THOSE WHO ARE NOT ACTIVE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>47</td>
<td>85.6</td>
<td>40</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>7.3</td>
<td>9</td>
</tr>
<tr>
<td>No answer</td>
<td>4</td>
<td>7.3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 3.741  D. of F. 4  Level of Significance .30

TABLE 41
HYPOTHESIS NO. III, ITEM NO. 40, 41, 42-1: I HAVE NOT LIVED THE RIGHT KIND OF LIFE OR I WOULD NOT HAVE HAD TB.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>30.9</td>
<td>11</td>
</tr>
<tr>
<td>Disagree</td>
<td>30</td>
<td>54.5</td>
<td>38</td>
</tr>
<tr>
<td>No answer</td>
<td>8</td>
<td>14.5</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>69</td>
</tr>
</tbody>
</table>

Chi Square 3.238  D. of F. 4  Level of Significance .50
TABLE 42

HYPOTHESIS NO. III, ITEM NO. 40, 41, 42-2: I FELT A DIFFERENCE IN MY FAMILY'S ATTITUDE TOWARD ME AFTER I HAD TB.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>30.9</td>
<td>5</td>
</tr>
<tr>
<td>Disagree</td>
<td>27</td>
<td>49.1</td>
<td>44</td>
</tr>
<tr>
<td>No answer</td>
<td>11</td>
<td>20.0</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 13.252  D. of F. 4  Level of Significance .01

TABLE 43

HYPOTHESIS NO. III, ITEM NO. 43, 44, 45-1: A PERSON WHO HAS BAD MANNERS, HABITS, AND BREEDING CAN HARDLY BE EXPECTED TO GET ALONG WITH DECENT PEOPLE.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>38</td>
<td>65.4</td>
<td>33</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>18.2</td>
<td>15</td>
</tr>
<tr>
<td>No answer</td>
<td>9</td>
<td>16.4</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 3.556  D. of F. 4  Level of Significance .50
TABLE 44

HYPOTHESIS NO. III, ITEM NO. 62: AS AN ADULT, HOW HAD YOUR HEALTH BEEN UNTIL THE TIME YOUR TB WAS DISCOVERED?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Poor or average</td>
<td>31</td>
<td>56.4</td>
<td>24</td>
</tr>
<tr>
<td>Excellent</td>
<td>24</td>
<td>43.6</td>
<td>30</td>
</tr>
<tr>
<td>No data (not included)</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Chi Square</td>
<td>1.819</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. of F.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Significance</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 45

HYPOTHESIS NO. IV, ITEM NO. 12: HOW LONG AFTER YOU FOUND OUT YOU HAD TB DID IT TAKE YOU TO DECIDE TO GO TO THE HOSPITAL WHEN YOU WENT THE LAST TIME?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Immediately</td>
<td>30</td>
<td>54.5</td>
<td>35</td>
</tr>
<tr>
<td>Week</td>
<td>14</td>
<td>25.5</td>
<td>9</td>
</tr>
<tr>
<td>Month plus</td>
<td>11</td>
<td>20.0</td>
<td>11</td>
</tr>
<tr>
<td>No decision</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>No data</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Chi Square</td>
<td>2.798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. of F.</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Significance</td>
<td>.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 46

HYPOTHESIS NO. IV, ITEM NO. 46, 47, 48-1: IN THESE TIMES A PERSON HAS TO LIVE PRETTY MUCH FOR TODAY AND LET TOMORROW TAKE CARE OF ITSELF.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>45.4</td>
<td>23</td>
</tr>
<tr>
<td>Disagree</td>
<td>20</td>
<td>36.4</td>
<td>25</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 1.594 D. of F. 4 Level of Significance .70

TABLE 47

HYPOTHESIS NO. IV, ITEM NO. 66: WHEN YOU BEGIN A NEW JOB, WHICH ONE WAY HAVE YOU FOUND MOST OFTEN TO BE THE BEST WAY TO FIND OUT WHAT IS EXPECTED OF YOU?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Formal</td>
<td>26</td>
<td>53.1</td>
<td>35</td>
</tr>
<tr>
<td>Direct</td>
<td>15</td>
<td>30.6</td>
<td>12</td>
</tr>
<tr>
<td>Indirect</td>
<td>8</td>
<td>16.3</td>
<td>4</td>
</tr>
<tr>
<td>Does not apply</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>No data</td>
<td>3</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 3.175 D. of F. 4 Level of Significance .50
TABLE 48

HYPOTHESIS NO. V, ITEM NO. 28: DO YOU THINK PEOPLE WITH TB SHOULD EVER BE FORCED TO GO OR STAY IN THE HOSPITAL?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Everyone</td>
<td>7</td>
<td>12.7</td>
<td>16</td>
</tr>
<tr>
<td>No home</td>
<td>10</td>
<td>18.2</td>
<td>9</td>
</tr>
<tr>
<td>No sense</td>
<td>26</td>
<td>47.3</td>
<td>15</td>
</tr>
<tr>
<td>No one</td>
<td>11</td>
<td>20.0</td>
<td>8</td>
</tr>
<tr>
<td>No data</td>
<td>1</td>
<td>20.0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 11.44  D. of F. 6  Level of Significance .05

TABLE 49

HYPOTHESIS NO. V, ITEM NO. 33, 34, 35-4: CONDITIONS COULD BE IMPROVED IF SOME OF THE RULES WERE NOT SO STRICTLY ENFORCED.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>35</td>
<td>63.6</td>
<td>31</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>18.2</td>
<td>19</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
<td>18.2</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 20.207  D. of F. 4  Level of Significance .01
TABLE 50

HYPOTHESIS NO. V, ITEM NO. 43, 44, 45-2: THE PEOPLE WHO BENEFIT MOST FROM RULES AND REGULATIONS ARE THE ONES WHO GET SATISFACTION FROM LAYING THEM DOWN TO OTHERS.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>13</td>
<td>23.6</td>
<td>21</td>
</tr>
<tr>
<td>Disagree</td>
<td>29</td>
<td>52.7</td>
<td>27</td>
</tr>
<tr>
<td>No answer</td>
<td>13</td>
<td>23.6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 8.868  D. of F. 4  Level of Significance .15

TABLE 51

HYPOTHESIS NO. V, ITEM NO. 43, 44, 45-4: THE FEW PEOPLE WHO CANNOT CONTROL THEMSELVES MAKE IT NECESSARY FOR THE REST OF US TO ABIDE BY UNPLEASANT RULES.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>42</td>
<td>76.4</td>
<td>44</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>10.9</td>
<td>3</td>
</tr>
<tr>
<td>No answer</td>
<td>7</td>
<td>12.7</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 5.522  D. of F. 4  Level of Significance .30
TABLE 52

HYPOTHESIS NO. V, ITEM NO. 46, 47, 48-4: ON THE WHOLE, MOST OF THE RED TAPE YOU COME ACROSS TODAY IS REALLY NOT NECESSARY.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>34</td>
<td>61.8</td>
<td>33</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>18.2</td>
<td>14</td>
</tr>
<tr>
<td>No answer</td>
<td>11</td>
<td>20.0</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 5.590 D. of F. 4 Level of Significance .30

TABLE 53

HYPOTHESIS NO. V, ITEM NO. 46, 47, 48-5: IT IS ALL RIGHT TO GET AROUND THE LAW IF YOU DO NOT ACTUALLY BREAK IT.

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Agree</td>
<td>15</td>
<td>27.3</td>
<td>12</td>
</tr>
<tr>
<td>Disagree</td>
<td>29</td>
<td>52.7</td>
<td>32</td>
</tr>
<tr>
<td>No answer</td>
<td>11</td>
<td>20.0</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 1.572 D. of F. 4 Level of Significance .85
TABLE 54

HYPOTHESIS NO. V, ITEM NO. 55: HOW OLD WERE YOU WHEN YOU LEFT THE HOME OF YOUR ORIGINAL FAMILY ON YOUR OWN?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Under 19</td>
<td>39</td>
<td>70.9</td>
<td>25</td>
</tr>
<tr>
<td>20 - 29</td>
<td>12</td>
<td>21.8</td>
<td>21</td>
</tr>
<tr>
<td>Over 30 and never left</td>
<td>4</td>
<td>7.3</td>
<td>8</td>
</tr>
<tr>
<td>No data</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 17.40  D. of F. 4  Level of Significance .01

TABLE 55

HYPOTHESIS NO. V, ITEM NO. 57: HOW DID YOUR FAMILY FEEL ABOUT YOUR LEAVING HOME?

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Experimental Group A</th>
<th>Matched Control Group B</th>
<th>Unmatched Control Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Favorable</td>
<td>12</td>
<td>21.8</td>
<td>14</td>
</tr>
<tr>
<td>Neutral</td>
<td>7</td>
<td>12.7</td>
<td>5</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>21</td>
<td>38.2</td>
<td>9</td>
</tr>
<tr>
<td>Never left</td>
<td>2</td>
<td>3.6</td>
<td>17</td>
</tr>
<tr>
<td>Not apply</td>
<td>5</td>
<td>9.1</td>
<td>3</td>
</tr>
<tr>
<td>No data</td>
<td>8</td>
<td>14.6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td></td>
<td>55</td>
</tr>
</tbody>
</table>

Chi Square 9.992  D. of F. 4  Level of Significance .05
### APPENDIX V

**Weights for the Predictive Instruments**

**Table 1**

Weights Arrived at by Method I Assigned to the Seventeen Items in Predictive Instruments

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Category</th>
<th>N</th>
<th>P</th>
<th>Log P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoth 1: 24</td>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Married)</td>
<td>34</td>
<td>66</td>
<td>51.52</td>
<td>1.71189</td>
</tr>
<tr>
<td>(Divorced)</td>
<td>15</td>
<td>21</td>
<td>71.43</td>
<td>1.85380</td>
</tr>
<tr>
<td>(Sons &amp; Wid.)</td>
<td>6</td>
<td>23</td>
<td>26.09</td>
<td>1.41647</td>
</tr>
<tr>
<td>40-3</td>
<td>AGREE</td>
<td>15</td>
<td>24</td>
<td>62.30</td>
</tr>
<tr>
<td>(Can Never Please People)</td>
<td>DISAGREE</td>
<td>31</td>
<td>71</td>
<td>43.66</td>
</tr>
<tr>
<td>No Ans.</td>
<td>9</td>
<td>15</td>
<td>60.00</td>
<td>1.77815</td>
</tr>
<tr>
<td>(People Look Out for Self)</td>
<td>AGREE</td>
<td>23</td>
<td>60</td>
<td>38.33</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>18</td>
<td>29</td>
<td>62.07</td>
<td>1.79828</td>
</tr>
<tr>
<td>No Ans.</td>
<td>14</td>
<td>21</td>
<td>66.67</td>
<td>1.82393</td>
</tr>
<tr>
<td>(Number of Marriages)</td>
<td>ONE</td>
<td>28</td>
<td>60</td>
<td>46.67</td>
</tr>
<tr>
<td>MORE</td>
<td>19</td>
<td>29</td>
<td>65.52</td>
<td>1.81637</td>
</tr>
<tr>
<td>NEVER</td>
<td>7</td>
<td>19</td>
<td>36.84</td>
<td>1.56632</td>
</tr>
<tr>
<td>70</td>
<td>NO</td>
<td>14</td>
<td>36</td>
<td>38.94</td>
</tr>
<tr>
<td>(Disagreement with Superiors)</td>
<td>EXPRESS</td>
<td>24</td>
<td>37</td>
<td>64.26</td>
</tr>
<tr>
<td>Hypoth 11: 29-6</td>
<td><strong>Nurses Devoted to Duty</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGREE</td>
<td>28</td>
<td>70</td>
<td>40.00</td>
<td>1.60206</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>10</td>
<td>19</td>
<td>52.83</td>
<td>1.72123</td>
</tr>
<tr>
<td>No Ans.</td>
<td>21</td>
<td>71</td>
<td>80.95</td>
<td>1.90622</td>
</tr>
<tr>
<td>(Doctors Act Superior)</td>
<td>AGREE</td>
<td>17</td>
<td>40</td>
<td>52.50</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>17</td>
<td>41</td>
<td>41.46</td>
<td>1.61763</td>
</tr>
<tr>
<td>No Ans.</td>
<td>17</td>
<td>29</td>
<td>58.62</td>
<td>1.76805</td>
</tr>
<tr>
<td>(Doctors Interested in Money)</td>
<td>AGREE</td>
<td>18</td>
<td>47</td>
<td>38.30</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>20</td>
<td>28</td>
<td>71.43</td>
<td>1.85388</td>
</tr>
<tr>
<td>No Ans.</td>
<td>35</td>
<td>82</td>
<td>42.88</td>
<td>1.62022</td>
</tr>
<tr>
<td>(Doctors Ought To Be Respected)</td>
<td>AGREE</td>
<td>6</td>
<td>9</td>
<td>66.97</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>14</td>
<td>19</td>
<td>73.68</td>
<td>1.85735</td>
</tr>
<tr>
<td>No Ans.</td>
<td>17</td>
<td>35</td>
<td>48.57</td>
<td>1.68637</td>
</tr>
<tr>
<td>(Difficult To Find A Doctor)</td>
<td>AGREE</td>
<td>21</td>
<td>54</td>
<td>38.89</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>20</td>
<td>15</td>
<td>66.87</td>
<td>1.82393</td>
</tr>
<tr>
<td>No Ans.</td>
<td>31</td>
<td>61</td>
<td>50.82</td>
<td>1.70603</td>
</tr>
<tr>
<td>(Doctors Cannot Communicate)</td>
<td>AGREE</td>
<td>17</td>
<td>23</td>
<td>73.91</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>36</td>
<td>67</td>
<td>53.73</td>
<td>1.72022</td>
</tr>
<tr>
<td>No Ans.</td>
<td>12</td>
<td>17</td>
<td>70.59</td>
<td>1.84874</td>
</tr>
<tr>
<td>(Doctors Treat Patients As Stupid)</td>
<td>AGREE</td>
<td>33</td>
<td>55</td>
<td>60.00</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>14</td>
<td>30</td>
<td>56.84</td>
<td>1.55632</td>
</tr>
<tr>
<td>No Ans.</td>
<td>8</td>
<td>17</td>
<td>47.06</td>
<td>1.67265</td>
</tr>
<tr>
<td>Hypoth 111: 40-2</td>
<td><strong>Young Unmarried Women Teaching</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGREE</td>
<td>17</td>
<td>22</td>
<td>77.27</td>
<td>1.88301</td>
</tr>
<tr>
<td>DISAGREE</td>
<td>27</td>
<td>71</td>
<td>36.03</td>
<td>1.57013</td>
</tr>
<tr>
<td>No Ans.</td>
<td>11</td>
<td>17</td>
<td>64.71</td>
<td>1.81097</td>
</tr>
<tr>
<td>Hypoth IV: 55</td>
<td><strong>Age At Leaving Home</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDER 19</td>
<td>39</td>
<td>62</td>
<td>62.90</td>
<td>1.79865</td>
</tr>
<tr>
<td>20-29</td>
<td>12</td>
<td>33</td>
<td>36.36</td>
<td>1.55062</td>
</tr>
<tr>
<td>OVER 30</td>
<td>4</td>
<td>12</td>
<td>33.33</td>
<td>1.52284</td>
</tr>
<tr>
<td>(Family's Attitude At Leaving Home)</td>
<td>FAVORABLE</td>
<td>12</td>
<td>28</td>
<td>58.21</td>
</tr>
<tr>
<td>UNFAVORABLE</td>
<td>21</td>
<td>30</td>
<td>70.00</td>
<td>1.89810</td>
</tr>
<tr>
<td>NEVER LEFT</td>
<td>2</td>
<td>19</td>
<td>10.53</td>
<td>1.02243</td>
</tr>
<tr>
<td>Hypoth V: 28</td>
<td><strong>Forced Hospitalization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EVERYONE</td>
<td>7</td>
<td>23</td>
<td>30.43</td>
<td>1.49330</td>
</tr>
<tr>
<td>NO HOME</td>
<td>10</td>
<td>15</td>
<td>52.63</td>
<td>1.72309</td>
</tr>
<tr>
<td>NO SENSE</td>
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<td>34</td>
<td>63.41</td>
<td>1.56632</td>
</tr>
<tr>
<td>NO ONE</td>
<td>11</td>
<td>15</td>
<td>54.88</td>
<td>1.75260</td>
</tr>
</tbody>
</table>
## Table 2

Matrix of Pearsonian Correlations of Seventeen Items with Each Other and the Criterion

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
<th>CRITERION</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAY OR LEAVE RESPONSE</td>
<td>1.00</td>
<td>.29</td>
<td>.25</td>
<td>.33</td>
<td>.27</td>
<td>.19</td>
<td>.23</td>
<td>.31</td>
<td>.14</td>
<td>.26</td>
<td>.25</td>
<td>.22</td>
<td>.31</td>
<td>.28</td>
<td>.33</td>
</tr>
<tr>
<td>24 - Marital Status</td>
<td>.29</td>
<td>1.00</td>
<td>.00</td>
<td>.24</td>
<td>.40</td>
<td>.06</td>
<td>.07</td>
<td>.14</td>
<td>-.10</td>
<td>.10</td>
<td>.09</td>
<td>.05</td>
<td>.00</td>
<td>.14</td>
<td>.05</td>
</tr>
<tr>
<td>28 - Forced Hospitalization</td>
<td>.25</td>
<td>.00</td>
<td>1.00</td>
<td>.04</td>
<td>.03</td>
<td>-.07</td>
<td>.20</td>
<td>.13</td>
<td>.16</td>
<td>.16</td>
<td>.19</td>
<td>.23</td>
<td>.12</td>
<td>.12</td>
<td>.08</td>
</tr>
<tr>
<td>55 - Age At Leaving Home</td>
<td>.33</td>
<td>.24</td>
<td>.04</td>
<td>1.00</td>
<td>.54</td>
<td>.34</td>
<td>.15</td>
<td>.05</td>
<td>.08</td>
<td>.04</td>
<td>.06</td>
<td>.08</td>
<td>.11</td>
<td>.10</td>
<td>.20</td>
</tr>
<tr>
<td>57 - Family's Attitude Toward Leaving Home</td>
<td>.27</td>
<td>.40</td>
<td>.03</td>
<td>.54</td>
<td>1.00</td>
<td>.37</td>
<td>.09</td>
<td>.14</td>
<td>.08</td>
<td>.09</td>
<td>.05</td>
<td>.08</td>
<td>.01</td>
<td>.12</td>
<td>.12</td>
</tr>
<tr>
<td>63 - Number of Marriages</td>
<td>.19</td>
<td>.66</td>
<td>.07</td>
<td>.34</td>
<td>.37</td>
<td>1.00</td>
<td>.11</td>
<td>.06</td>
<td>.10</td>
<td>.06</td>
<td>.02</td>
<td>.03</td>
<td>.06</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>70 - Disagreement With Superiors</td>
<td>.23</td>
<td>.07</td>
<td>.20</td>
<td>.15</td>
<td>.09</td>
<td>.11</td>
<td>1.00</td>
<td>.06</td>
<td>-.04</td>
<td>.10</td>
<td>.07</td>
<td>.09</td>
<td>.04</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>29-5 - Nurses Devoted to Duty</td>
<td>.31</td>
<td>.14</td>
<td>.13</td>
<td>.05</td>
<td>.14</td>
<td>.05</td>
<td>.06</td>
<td>1.00</td>
<td>.45</td>
<td>.57</td>
<td>.61</td>
<td>.29</td>
<td>.44</td>
<td>.33</td>
<td>.27</td>
</tr>
<tr>
<td>36-2 - Doctors Act Superior</td>
<td>.14</td>
<td>-.10</td>
<td>.16</td>
<td>.08</td>
<td>.08</td>
<td>.10</td>
<td>-.04</td>
<td>.45</td>
<td>1.00</td>
<td>.59</td>
<td>.48</td>
<td>.46</td>
<td>.41</td>
<td>.48</td>
<td>.38</td>
</tr>
<tr>
<td>36-3 - Doctors Interested In Money</td>
<td>.26</td>
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Correlation coefficients range from -1 to 1, with values closer to 1 indicating a stronger positive correlation and values closer to -1 indicating a stronger negative correlation. Values close to 0 indicate little to no correlation. The matrix provides a comprehensive view of the interrelationships among the seventeen items and the criterion.
Pages 164 - 165 repeated in numbering.
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