SOCIAL ASPECTS OF PSYCHIATRIC TREATMENT IN THREE HOSPITALS: METHODOLOGICAL PROBLEMS 1/

Max Pollack, Ph. D., Nathaniel Siegel, Ph. D.
Robert L. Kahn, Ph. D., and Max Fink, M. D.

The generalization of findings from one population to another is basic to any science. Psychiatry, perhaps more than other medical specialties, is plagued with controversies concerning the non-reproducibility of results. One factor responsible for this state is the failure of investigators to adequately describe their populations and methods. The organization of multiple hospital studies makes possible the detection and clarification of these methodological difficulties. We would like to describe some of the problems we encountered in a recent tri-hospital study, with reference to the variables of type of treatment, discharge diagnosis, ratings of clinical improvement at time of discharge and length of hospital stay.

Various social psychiatric studies of community and hospital psychiatric populations (1, 2, 6) have established the importance of sociopsychological factors in the type and incidence of mental disorder, the selection and maintenance of treatment and therapeutic evaluations. In these previous studies such selective factors as the patient's financial resources or the extent and type of available treatment facilities may have been more significant in the observed results than the social variables studied. A more critical test of the role of socio-psychological factors in treatment would be a study in a setting where the same therapeutic techniques and services are available to all patients, regardless of their ability to pay. This requirement is met at Hillside Hospital, and in 1957, we embarked on a program of assaying the relation of sociopsychological factors to the treatment of hospitalized psychiatric patients (3, 4). Each patient receives individual psychotherapy and by request of his physician, somatotherapy (convulsive or psychopharmacological therapy).

Our method of investigation was a census-type survey of all in-patients on a given day (3). In addition a brief modified California F Scale test (2, 5) was administered to all patients. We observed that age, education, sex, foreign-birth, and performance on the California F Scale were significantly related to choice of treatment, duration of hospitalization, clinical discharge ratings and to clinical diagnosis.

In order to test the reliability of these findings, we repeated this study at Hillside Hospital in 1958, employing the same procedures and, concurrently extended it to two other institutions, the C. F. Menninger Memorial Hospital and the Massachusetts Mental Health Center (MMHC). These institutions are similar to Hillside Hospital in that both psychoanalytically - oriented psychotherapy and somatic therapies are available. They were selected for the additional reason that one serves predominately socioeconomic Class I and II patients (Menninger Hosp.) and the other, predominately Class IV and V, (MMHC).

Observations

Hospital Structure

When reporting data from ones own institution, the structure of the hospital is taken for granted, and either ignored or briefly mentioned. When approaching a new institution,

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1/ From the department of Experimental Psychiatry, Hillside Hospital Glen Oaks, L.I., N.Y.

Aided, in part, by grant MY-2715 of the National Institute of Mental Health; and the Nassau County Mental Health Board.

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however, and attempting to gather comparable data one is made aware of the differences in institutions and the nature of the hospital organization is seen as one of the methodologic problems affecting treatment. Both the MMHC and Menninger institutions have day hospital units, and Hillside does not. At the MMHC the treating physician can care for the same patient as an in-patient, in the day hospital, and in the after-care clinic. In such a setting, the treating doctor can discharge the patient from the hospital at an earlier date, knowing that he will still be responsible for his patient's care; whereas in Hillside Hospital discharge means termination of the patient-doctor relationship.

Another problem was the presence of different research programs, affecting clinical routines. For example, at the time of the survey, approximately 20 percent of the patients at MMHC were chronically ill and had been hospitalized for many years. Such a group would not normally have been in this hospital but they were transferred from another state hospital for special study purposes.

Designation of Type of Treatment

In our assessments of specific variables, we encountered a variety of problems associated with the content of hospital records. For example, it was difficult to determine the length of stay prior to referral for a somatic treatment, or the length of time spent in that treatment. However, a major problem was to learn which patients were receiving psychotherapy. Our task was not to define psychotherapy, but the much simpler problem of noting which patients were designated by the hospital as having been treated with psychotherapy. At Menninger Hosptial, psychotherapy was administered on a prescription basis by a staff psychiatrist for which the patient was charged an additional fee. Sessions with the psychiatric resident physician were considered part of routine administrative patient care and were not recorded as psychotherapy. At Hillside Hospital the definition of psychotherapy was limited to treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients directly, but restricted their activity to supervising the residents.

In contrast, at the MMHC psychotherapy was designated as a function of many disciplines - psychiatric residents, nurses, medical students, social workers and psychologists. To ascertain whether or not a patient was receiving psychotherapy we had to interview the resident physician in charge of the case.

Diagnosis

The assessment of diagnosis was another problem area. It is not surprising that there are institutional diagnostic styles which reflect staff orientations rather than the behavior of the patient. Pasamanick and his associates (7) has shown that diagnoses within the same institution are vulnerable to individual differences among examiners. In our present study, there were differences in the terminology of the discharge diagnosis. Discharge diagnoses at Menninger Hospital were more descriptive and employed a multiple classification system. Table I illustrates several examples and shows how we converted these into more generic categories that could be applicable to all three institutions. In reducing multiple diagnoses to single generic ones, we were aware that we were introducing distortions through this maneuver.

Table II illustrates the distribution of diagnostic categories within each institution. Note that at the Menninger Hospital there was a lower incidence of diagnosed schizophrenia and affective psychoses, while the diagnosis of personality disorder exceeds by three and five-fold that found in the other two hospitals. We would emphasize that cross hospital comparisons of populations based on diagnosis as the single or the most important criterion does not insure comparability of populations.

Discharge Ratings of Improvement

Similar problems exist for the equivalence of global ratings of improvement. As in the case of diagnosis, Menninger Hospital had the most elaborate discharge ratings of improvement and Hillside Hospital, the simplest.

TYPES OF DISCHARGE DIAGNOSIS

Patient Discharge Rating	Classification Rating
1. Depression Reaction Narcissistic Personality	Psychoneurosis
2. Anxiety Reaction Narcissistic Personality	Psychoneurosis
3. Narcissistic Personality	Personality Trait Disturbance
4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5. Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6. Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

DISTRIBUTION OF DIAGNOSIS (PERCENTAGE)

	Menninger	Hillside	MMHC
Schizophrenia	41	52	52
Personality Disorders	33	6	13
Psychoneuroses	14	18	8
Affective Psychoses	5	21	16
Organic Psychoses	5	1	5
Transient Personality Disorder	2	2	6
N=	100	173	93

As shown in Table III the discharge rating at Menninger Hospital was tripartite and a separate rating given for social, characterological and syndrome changes. Hillside and MMHC had similar global ratings and it is difficult to state how much weight was given to each of the three factors incorporated in the Menninger system. Such differences in systems makes it difficult to compare treatment results of hospitalization.

Hospitalization

Length of hospitalization for most illnesses, including psychiatric disorders, commonly denotes both severity of illness and response to treatment. As such, it is frequently used as an index for interhospital comparison. Table IV compares length of hospitalization by age at the time of the study. There was an observable relation between length of stay and age within each institution, with age being inversely related to length of hospitalization. Yet, among these three hospitals there were marked differences.

When diagnosis is employed a similar pattern is obtained. At Menninger Hospital the percentage of patients with the diagnosis of schizophrenia who were hospitalized over one year was 91%, at Hillside Hospital 35% and at MMHC, 7%.

TABLE III

RATINGS OF CLINICAL CONDITION AT TIME OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		Regression
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE IV

HOSPITAL STAY BY AGE
PERCENTAGE OF AGE GROUP
STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
20-29	73	36	6
30-39	61	30	6
40-49	30	20	0
50+	36	0	0

Discussion

We have indicated that the philosophy and organization of institutions is an essential factor not to be ignored in assessing observations and reports. Faced with the problem of generalizing our findings, how do we overcome these institutional differences that are the methodological stumbling blocks to scientific activity?

There is an urgent need for objective techniques to describe populations. The use of single diagnostic terms is obviously inadequate. It is likely that detailed behavioral and sociopsychological descriptions of patients may be the best technique for overcoming this difficulty.

Summary

Studies of the in-patient population of Hillside Hospital indicated that age, foreign-birth, education and stereotypic attitudes as measured by the California F Scale were significantly related to choice of treatment, duration of hospitalization, discharge ratings of improvement and diagnosis. We have extended this study to other institutions offering psychoanalytically-oriented psychotherapy and somatic therapies with different social structures - one the Massachusetts Mental Health Center, serving "lower-class" patients and the other, the C. F. Menninger Memorial Hospital, serving "upper-class" patients.

We have encountered a variety of problems in this comparison, including differences in 1) the type of hospital organization; 2) the definition of the treatment as in the designation of which patients were receiving psychotherapy; 3) discharge rating systems of clinical improvement; and 4) diagnostic "styles" employed.

The importance of these methodological problems in current psychiatric research are discussed.

References

(1) Hollingshead, A. B., and Redlich, F. C.: Social Class and Mental Illness: A Community Study, New York, John Wiley & Sons, Inc., 1958.

(2) Gallagher, E. B.: Levinson, D. J., and Erlich, I.: Some Sociopsychological Characteristics of Patients and Their Relevance for Psychiatric Treatment, in The Patient and the Mental Hospital, edited by M. Greenblatt, D.J. Levinson, and R. H. Williams, Chicago, Free Press, 1957.

(3) Kahn, R. L., Pollack, M. and Fink, M.: Social Factors in Selection of Therapy in a Voluntary Mental Hospital. J. Hillside Hospital 6: 216-228, 1957.

(4) Kahn, R. L., Pollack, M. and Fink, M. Sociopsychologic Aspects of Psychiatric Treatment in A Voluntary Mental Hospital: Duration of Hospitalization, Discharge Ratings and Diagnosis. A.M.A. Arch. Gen. Psychiat. 1: 565-574, 1959.

(5) Kahn, R. L., Pollack, M. and Fink, M.: Social Attitude (California F Scale) and Convulsive Therapy. J. Neu. Ment. Dis., 130: 189-192, 1960.

(6) Myers, J. K., and Schaffer, L.: Social Stratification and Psychiatric Practice: A Study of an Out-Patient Clinic, Am. Sociol. Rev., 19:307-310, 1954.

(7) Pasamanick, B., Dinitz, S. and Lefton, M.: Psychiatric Orientation and its Relation to Diagnosis and Treatment in a Mental Hospital. Amer. J. Psychiat., 116: 127-132, 1959.

DISCUSSION

DR. KLERMAN:

One of the ways to overcome the biasing factors related to length of stay is to calculate the mean stay for each hospital. In this way interhospital comparisons of the effect of such variables as age on length of stay could be compared in terms of quartiles.

DR. POLLACK:

That's a good suggestion, however it still doesn't overcome the problem of differences in hospital structure, e.g., the presence or absence of a day hospital facilities, in influencing length of hospital stay.

DR. OPPENHEIM:

The finding that younger patients tended to stay longer at the hospital seemed to be at variance with experience at VA Hospitals. I ask what was it about the therapeutic programs at the three hospitals that led to these findings? What are the theoretical implications of these findings?

DR. POLLACK:

The length of time a patient is hospitalized in a psychiatric facility is related to the particular function and philosophy of the institution. In those hospitals that stress psychoanalytically oriented psychotherapy, patients who are most like the therapists with regard to sociopsychological factors are kept in treatment for the longest period. In studies of out-patient clinics with a psychoanalytic orientation, it has been found that persons from higher social levels, as determined by education and income, are treated longer. In contrast, in state hospitals the results are quite different. Thus, it has been shown that state hospital patients with the least education will be institutionalized longer and are more likely to become the chronic patients. Consistent with the concept of state hospitals as largely providing long-term custodial care for lower class patients, the state hospital psychiatrist may be oriented toward a comparatively more rapid discharge of those patients who come from a background most like his own.

Social Aspects of Psychiatric Treatment in Three Hospitals: Methodological Problems

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We have encountered a variety of problems in this comparison. These include differences in: 1) the definition of the treatment as in the designation of which patients were receiving psychotherapy; 2) discharge ratings of clinical improvement; 3) diagnostic "styles"; and 4) on-going research studies which alter clinical routines.

The importance of these methodological problems in current psychiatric research are discussed.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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IV: 4/17/61

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Various social psychiatric studies of community and hospital psychiatric populations (1, 2, 6) had established the importance of sociopsychological factors in the type and incidence of mental disorder, the selection and maintenance of treatment and therapeutic evaluations. In these previous studies such selective factors as the patient's financial resources or the extent and type of available treatment facilities may have been more significant in the observed results than the social variables studied. A more

critical test of the role of sociopsychological factors in treatment would be a study in a setting where the same therapeutic techniques and services are available to all patients, regardless of their ability to pay. This requirement is not at Hillside Hospital, and in 1957, we embarked on a program of assaying the relation of sociopsychological factors to the treatment of hospitalized psychiatric patients (3, 4). Each patient receives individual psychotherapy and by request of his physician, somatotherapy (convulsive or psychopharmacological therapy). Almost all patients are non-chronic, as their admission to the hospital is associated either with first hospitalization or a recurrence of illness after a long period of remission. The case load is small, with at most ten patients to one resident physician.

Our method of investigation was a census-type survey of all in-patients on a given day (3). In addition a brief modified California F Scale test (2, 5) was administered to all patients. We observed that age, education, sex, foreign-birth, and performance on the California F Scale were significantly related to choice of treatment, duration of hospitalization, clinical discharge ratings and to clinical diagnosis.

In order to test the reliability of these findings, we repeated this study at Hillside Hospital in 1958, employing the same procedures and, concurrently extended it to two other institutions, the C.F. Menninger Memorial Hospital and

the Massachusetts Mental Health Center (MMHC). These institutions are similar to Hillside Hospital in that both psychoanalytically - oriented psychotherapy and somatic therapies are available. They were selected for the additional reason that one serves predominately socialogical Class I and II patients and the other, predominately Class IV and V.

OBSERVATIONS

Hospital Structure:

When reporting data from ones own institution, the structure of the hospital is taken for granted, and either ignored or briefly mentioned. However, when approaching a strange institution and attempting to gather comparable data one is made aware of the differences in institutions and the nature of the hospital organization is seen as one of the methodologic problems affecting treatment. Both the MMHC and Menninger institutions have day hospital units, and Hillside does not. At the MMHC the treating physician can care for the same patient as an in-patient, in the day hospital, and in the after-care clinic. In such a setting, the treating doctor can discharge the patient from the hospital at an earlier date, knowing that he will still be responsible for his patient's care; whereas in Hillside Hospital discharge means termination of the patient-doctor relationship.

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Table I

Table II illustrates the distribution of diagnositic categories within each institution. Note that at the Menninger Hospital there was a lower incidence of diagnosed schizophrenia and affective psychoses, while the diagnosis of personality disorder exceeds by three and five-fold that found in the other two hospitals.

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We would emphasize that cross hospital comparisons of populations based on diagnosis as the single or the most important criterion does not insure comparability of populations.

Discharge Ratings of Improvement:

Similar problems exist for the equivalence of global ratings of improvement. As in the case of diagnosis, Menninger Hospital had the most elaborate discharge ratings of improvement and Hillside Hospital, the simplest.

As shown in Table III the discharge rating at Menninger Hospital was tripartite and a separate rating given for social, characterological and syndrome changes. Hillside and MMHC had similar global ratings and it is difficult to state how much weight was given to each of the three factors incorporated in the Menninger system. Such differences in systems makes it difficult to compare treatment results of hospitalization.

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Hospitalization:

Length of hospitalization for most illnesses, including psychiatric disorders, commonly denotes both severity of

illness and response to treatment. As such, it is frequently used as an index for interhospital comparison. Table IV compares length of hospitalization by age at the time of the study. There was an observable relation between length of stay and age within each institution, with age being inversely related to length of hospitalization. Yet, among these three hospitals there were marked differences.

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When diagnosis is employed a similar pattern is obtained. At Menninger Hospital the percentage of patients with the diagnosis of schizophrenia who were hospitalized over one year was 91%, at Hillside Hospital 35% and at MMHC, 7%.

DISCUSSION

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and sociopsychological descriptions of patients may be the best technique for overcoming this difficulty.

SUMMARY

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We have encountered a variety of problems in this comparison, including differences in: 1) the type of hospital organization; 2) the definition of the treatment as in the designation of which patients were receiving psychotherapy; 3) discharge rating systems of clinical improvement; and 4) diagnostic "styles" employed.

The importance of these methodological problems in current psychiatric research are discussed.

TABLE I

TYPES OF DISCHARGE DIAGNOSIS

PATIENT DISCHARGE RATING	CLASSIFICATION RATING
1. Depression Reaction Narcissistic Personality	Psychoneurosis
2. Anxiety Reaction Narcissistic Personality	Psychoneurosis
3. Narcissistic Personality	Personality Trait Disturbance
4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
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TABLE II

DISTRIBUTION OF DIAGNOSIS (PERCENTAGE)

	Menninger	Hillside	MMHC
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TABLE III

RATINGS OF CLINICAL CONDITION AT TIME OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		Regression
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE IV

HOSPITAL STAY BY AGE

PERCENTAGE OF AGE GROUP STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
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REFERENCES

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2. Gallagher, E.B.: Levinson, D.J., and Erlich, Y.: Some Socio-psychological Characteristics of Patients and Their Relevance for Psychiatric Treatment, in The Patient and the Mental Hospital, edited by M. Greenblatt, D.J. Levinson, and R.H. Williams, Chicago, Free Press, 1957.

3. Kahn, R.L., Pollack, M. and Fink, M.: Social Factors in Selection of Therapy in a Voluntary Mental Hospital. J. Hillside Hospital 6: 216-228, 1957.

4. Kahn, R.L., Pollack, M. and Fink, M.: Sociopsychologic Aspects of Psychiatric Treatment in a Voluntary Mental Hospital: Duration of Hospitalization, Discharge Ratings and Diagnosis. A.M.A. Arch. Gen. Psychiat. 1: 565-574, 1959.

5. Kahn, R.L., Pollack, M. and Fink, M.: Social Attitude (California F Scale) and Convulsive Therapy. J. Nerv. Ment. Dis., 130: 189-192, 1960.

6. Myers, J.K., and Schaffer, L.: Social Stratification and Psychiatric Practice: A Study of an Out-Patient Clinic, Am. Sociol. Rev., 19: 307-310, 1954.

7. Pasamanick, B., Dinitz, S. and Lofton, M.: Psychiatric Orientation and its Relation to Diagnosis and Treatment in a Mental Hospital. Amer. J. Psychiat., 116: 127-132, 1959.

Social Class, Diagnosis and Treatment in Three Psychiatric Hospitals

Nathaniel Siegel Ph.D., Max Pollack Ph.D.
Robert L. Kahn Ph.D. and Max Fink M. D.

INTRODUCTION:

Recent studies have indicated significant relationships between social class, psychiatric diagnosis and treatment selection. The present study was designed to study whether social class for hospitalized patients was related to diagnosis, type and length of treatment, in three institutions with patient populations of differing social class membership.

PROCEDURE:

Two hundred and ninety voluntarily admitted patients to the C.F. Menninger Memorial Hospital, Hillside Hospital and the Massachusetts Mental Health Center were studied as of a given hospital census day in the Winter, 1958-1959. Patients were followed by a research team throughout their course of hospitalization and details concerning their background, treatment and diagnosis were recorded.

RESULTS:

Social class was found to be a more significant variable in comparisons between hospitals than in intra-institution analysis. Within institutions social class was significantly related to length of hospitalization only; class IV and V patients remained in treatment for shorter periods than those in classes I, II and III.

Comparison between hospitals showed significant relationships between social class and diagnosis and treatment as well as length of hospitalization. The higher the class status of the hospital, the more likely the patient would be diagnosed as non-psychotic, would not receive somatic therapy and would be hospitalized for a longer period. The class status of the hospital was more important than the individual patient's class membership in determining these relationships.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., New York.

The cooperation of the staff of the C.F. Menninger Memorial Hospital, Topeka; and the Massachusetts Mental Health Center, Boston, is gratefully acknowledged.

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The Identification of Patient Populations: Comparability of Subjects In Evaluating Therapies Among Institutions

Max Fink, M. D.

From the Missouri Institute of Psychiatry at St. Louis State Hospital, St. Louis

A report based on studies undertaken at the Hillside Hospital, New York in collaboration with Drs. R. L. Kahn, N. Siegel and M. Pollack, and to be published as "Sociopsychological Aspects of Psychiatric Treatment in Three Voluntary Hospitals" in 1963.

Recent community studies have demonstrated a relationship between social factors and psychiatric treatment. In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered (3). The influence of patient economic status upon the availability of treating personnel, however, was not excluded in these studies. To test the role of social factors in the treatment of hospitalized patients independent of patient's finances and availability of treatments, a survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

In the Hillside studies (4,5) it was observed that patients hospitalized for the shortest period were the oldest, had the least education and were most likely to have been foreign born. The older, less educated patients were predominantly treated by convulsive therapy and received the more favorable discharge ratings. Younger, native born and more educated patients were hospitalized the longest, treated primarily by psychotherapy and generally received the poorer discharge ratings. The clinical factors were also related to a measure of stereotypy, the California F Scale (1,6). Higher F scores, i.e., greater stereotypy, were often found in patients

diagnosed as involutional psychosis who were referred for somatic therapy, hospitalized for a shorter period, and more often were rated as much improved or recovered.

Another hypothesis developed at this time was that differences in various aspects of psychiatric treatment among hospitals should show the same relationship to social factors as noted within Hillside Hospital. To test this suggestion it was decided to employ the procedures of the 1957 Hillside study in three institutions -- Hillside Hospital, the C.F. Menninger Memorial Hospital of Topeka and the Massachusetts Mental Health Center of Boston. These institutions were selected with the expectation that they served patients of different social classes. It was anticipated that in these hospitals there would be a similarity in attitude towards treatment and education. Each is a teaching hospital with a full time supervisory staff and active research departments. They emphasize psychoanalytically-oriented psychotherapy but provide other treatments such as somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients and does not provide custodial care.

The specific aims of this study were to determine the population characteristics of the three institutions with respect to social class, age, education and F score: and to relate these characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation among the institutions.

METHOD

A census of all voluntary, adult patients in residence in these institutions was undertaken in January, 1959. While Menninger and Hillside Hospitals had voluntary patients only, a small number of those at the Massachusetts Mental Health Center (MMHC) were assigned by the courts for psychiatric evaluation or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. Each patient was given the California F scale on the census day. Eighteen months later the records of discharged patients were examined to determine the social and psychiatric factors of the study. For a measure of social class, the Hollingshead 2-factor index - a weighted score of education and occupation - was used (2). The study population consisted of 173 patients at Hillside, 100 at Menninger and 95 at the Massachusetts Mental Health Center.

The study included examination of the relations of the social to the psychiatric variables within each institution as well as between institutions. These comparisons were difficult however, because of various methodological differences discussed below. These difficulties were most marked in the intrahospital comparisons, and accordingly, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions with citation of intrainstitutional trends. These difficulties also led to missing information for some data, which is reflected in the varying population sample sizes in the tables.

RESULTS

A. Inter-hospital Comparisons

1. Methodological Problems

When reporting studies from a home institution, the structure of the hospital is taken for granted and either ignored or mentioned briefly. However, in studying a strange institution and attempting to gather comparable data one is made aware of the many differences between institutions. While we selected these institutions as comparable in teaching, research and treatment programs, we found that they were unlike structurally in ways which influenced the data of the study. Specific problems were noted in the designation of type of treatment, diagnostic classes and the evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At Menninger Hospital psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At Hillside Hospital psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians. No additional fees were charged.

At the Massachusetts Mental Health Center psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy it was necessary for members of the study team to interview the resident in charge of each case.

b) Diagnosis: Individual institutional diagnostic styles made comparisons difficult. At Menninger Hospital diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both Hillside and MMHC followed unitary systems. Several examples of diagnoses from Menninger are listed in Table I, with our suggested conversions into categories comparable to that of the other two institutions. These conversions provide a source of distortion.

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement at the three hospitals varied in format and detail. The discharge rating at Menninger Hospital was tripartite with a separate evaluation for social, characterological and syndrome changes. Hillside Hospital and Massachusetts Mental Health Center had global ratings making it difficult to assess the contribution of each factor of the Menninger system (Table II). For this study the Menninger syndrome

rating was compared to the global ratings of the other institutions.

Table II

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2. Sociopsychological Variables

The distribution of the variables of social class, age, education and California F Scale score among the three institutions is presented in Table III.

Table III

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a) Social Class: There was a marked difference in the social class composition of the three institutions. At Menninger Hospital the population was predominantly upper class; at Hillside Hospital, middle class; and at Massachusetts Mental Health Center, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients having more years of education at Menninger Hospital than at Massachusetts Mental Health Center. While 41 per cent of the patients at MMHC had not completed high school, only 32 per cent at Hillside and 23 per cent at Menninger did not graduate.

d) F Score: Significant differences in the distribution of scores on the California F Scale were observed. Fifty-one per cent

of Menninger patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at Hillside thirty-one per cent of the patients had F scores below 30 while at MMHC only twenty per cent were below 30.

Thus, the anticipated differences in the social class of the populations were observed, as well as significant differences in educational attainment and performance on the F Scale. These differences permit testing the hypothesis concerning the relation of sociopsychological factors to the treatment variables among the institutions.

3. Psychiatric Treatment Variables

a) Selection of Treatment: Among institutions, significantly fewer patients at Menninger Hospital (43%) received somatic therapy than at Hillside (64%) or MMHC (68%) as shown in Table IV.

b) Duration of Hospitalization: The three institutions differed markedly with respect to patient's length of stay (Table IV). Menninger Hospital patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the Hillside patients and only 5 per cent of those at the Massachusetts Mental Health Center. The modal stay of the Hillside group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalization.

c) Discharge Evaluation: In each hospital, most patients were evaluated at the time of discharge as "improved" (Table IV). At

either none or fewer than five cases, thus not permitting a satisfactory intrahospital test of the hypothesis.

2. Intra-Hospital Comparison

With this methodological limitation some trends similar to that found in the earlier study were observed, although few were of statistical significance. With regard to selection of treatment, for example, age and F score were found related at Menninger Hospital (older and higher F score patients more frequently receiving somatic therapy), and F score alone at Hillside.

Length of hospitalization and chronological age were related at both the Menninger and Hillside Hospitals - the younger patients remaining for the longest period. While such relationships were significant in these two hospitals, a similar trend was noted at the MMHC (Table V) where no patients over 40, but 14% of patients under the age of 20 remained longer than a year.

Table V

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California F Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distributions of diagnoses and discharge evaluations. The expectation that the institution serving upper class patients would have the longest duration of stay, a higher proportion of psychoneurotic diagnoses and more complex diagnostic schemata, lower proportion of patients receiving organic forms of therapy, and poorest discharge ratings were each confirmed. Similarly, the institution serving lower class patients evinced shorter periods of hospitalization, low proportions of psychoneurotic diagnoses, and better discharge evaluations.

It is our impression that these differences in psychiatric treatment are more related to differences in staff attitudes than to differences in population samples. The contrasts between institutions in duration of hospitalization are great, as are the complexity of diagnostic formulations, discharge evaluations, definitions of psychotherapy, and the details and amount of recorded data. These stylistic differences cannot be dismissed as merely idiosyncratic since they follow a pattern related to social differences consistent with previous findings.

Such population and treatment variable relationships appear to be interactive processes, determined both by the attitude of the physician and the administrative staff as by the constellation of symptoms or history which a patient may present. Such relationships will be most marked in those psychiatric conditions where diagnostic criteria are least specific, i.e., where the objective criteria defining diseases of known organic impairment are absent, as in schizophrenia, psychoneurosis and personality and behavior disorders. Under conditions of perceptual or situational ambiguity the observer's attitudes and expectations become the basis for perception and classification. This view was clearly demonstrated by Pasamanick, Dinitz and Lefton (7) in their study of variations in diagnosis within a single institution. They observed that patients randomly assigned to different wards did not differ in type of admission, marital status, education, age or residence. Significant differences did occur, however, in diagnoses among the three wards and among three administrators on one ward. As it is highly unlikely that these differences were inherent in the population, we believe they are largely reflections of the attitudes of the examiners.

It is clear that many of the present psychiatric concepts of diagnosis or clinical evaluation have relatively little meaning when transferred from one institution to another. If these concepts are taken literally the results become paradoxical. For example, Menninger Hospital has the most highly trained personnel conducting treatment, keeps its patients for the longest time and has fewest

patients diagnosed as schizophrenia. And yet, despite these resources and favorable factors, it reports the poorest treatment results. At MMHC, in contrast, which is most inclusive in defining a therapist, which keeps patients for the shortest periods, and which has a higher proportion of the population classed as schizophrenia, the reported treatment results are the best.

It is probable that this study does not reflect the relative therapeutic efficacy of the institutions. Our data furnishes no independent criteria for determining which hospital provides the better care; nor for assessing the comparability of the population in the degree of illness. Since the evaluations are based on the institution's own ratings, we believe that the differences reflect variations in the criteria used for evaluation of improvement rather than any intrinsic psychiatric characteristics.

In our initial Hillside study (5) it was postulated that different criteria of improvement were utilized for persons of different social background. It was suggested that the higher the person's social background the more complex the criteria employed. This has been literally confirmed in the present study, with Menninger's using a tripartite rating compared to the global rating of the other two institutions. Even considering the syndrome rating on which our comparative statistical analysis were based, it is our contention that for lower class persons we are apt to assess improvement in relation to symptom relief or the patient's capacity to resume work, while for upper class persons the criteria stress such complex

intangibles as "developing insight", or "working through one's problems."

While these investigations have again demonstrated the role of social factors in psychiatric treatment, we have been considerably impressed by the methodological problems of studies across institutions. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. But the differences in institutional style making it difficult to obtain comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The use of discharge ratings, diagnostic classifications or length of hospitalization as criteria in therapeutic evaluations or the identification of comparable populations are subject to considerable error unless the institutions are clearly matched for social class patterns in patient population and for staff attitudes and style. These difficulties may also extend to the failures of scientists to confirm observations made in other laboratories, for the lack of confirmation may be as much a reflection of differences in populations and psychiatric criteria as to errors in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results. Even were a valid observation to be reported from one laboratory, we do not have methods available to describe populations adequately to provide a sound confirmation.

Increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria rather than the present methods which appear to be so highly dependent on institutional and observer attitudes and the sociopsychological aspects of the therapist-patient interaction.

SUMMARY and CONCLUSION

1. In three psychotherapeutic-oriented teaching hospitals, population characteristics were related to treatment variables. Populations were defined by social class, age, education and F score, and were related to type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

2. Significant interinstitutional differences were observed in characteristics of patient social class, years of education and distribution of California F scores, but not age.

3. The variations in treatment characteristics among institutions were found to be significantly different in the predicted direction.

4. These variations in psychiatric practices follow a pattern consistent with social class differences among institutions and are not regarded as being idiosyncratic.

5. The differences in institutional style make comparisons of diagnoses, duration of hospitalization, and treatment results between institutions difficult and tenuous, and the need for more objective criteria of classification of populations is emphasized.

REFERENCES

1. Adorno, T.W., Frenkel-Brunswik, E., Levinson, D.J. and Sanford, R.N.: The Authoritarian Personality, New York, Harper & Brothers, 1950.
2. Hollingshead, A.B.: Two-Factor Index of Social Position, mimeographed publication.
3. Hollingshead, A.B. and Redlich, F.C.: Social Class and Mental Illness: A Community Study, New York, John Wiley & Sons, Inc., 1958.
4. Kahn, R.L., Pollack, M. and Fink, M.: Social Factors in the Selection of Therapy in a Voluntary Mental Hospital, J. Hillside Hosp., 6: 216-228, 1957.
5. Kahn, R.L., Pollack, M. and Fink, M.: Sociopsychologic Aspects of Psychiatric Treatments in a Voluntary Mental Hospital: Duration of Hospitalization, Discharge Ratings and Diagnosis, Arch. Gen. Psychiat., 1: 565-574, 1959.
6. Kahn, R.L., Pollack, M. and Fink, M.: Social Attitude (California F Scale) and Convulsive Therapy, J. Nerv. & Ment. Dis., 130: 187-192, 1960.
7. Pasamanick, B., Dinitz, S. and Lefton, M.: Psychiatric Orientation and Its Relation to Diagnosis and Treatment in a Mental Hospital, Amer. J. Psychiat., 116: 127-132, 1959.

TABLE I

Redesignation of Discharge Diagnoses

Menninger Discharge Diagnoses	General Classification
Depressive reaction Narcissistic Personality	Psychoneurosis
Anxiety reaction Narcissistic Personality	Psychoneurosis
Narcissistic Personality	Personality Trait Disturbance
Narcissistic Personality Alcoholism, Chronic Infantile Personality	Sociopathic Personality Disturbance
Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
Infantile Personality Schizophrenic Reaction, Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

Comparative Ratings of Clinical Condition

At Time of Hospital Discharge

MENNINGER HOSPITAL	HILLSIDE HOSPITAL	MASSACHUSETTS MENTAL HEALTH CENTER
Social Adjustment	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
Character Structure	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		
Syndrome		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE III

Interhospital Comparisons for Sociopsychological Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center
	N	(87)	(133)	(72)
Social Class	I	31%	7%	3%
	II	51	20	28
	III	17	34	13
	IV	1	34	28
	V	0	5	28
		χ^2=121.5; df=8: p<.001		
	N	(100)	(173)	(95)
Age	<20	19%	19%	15%
	20-39	59	58	52
	40 +	22	23	33
		χ^2=3.9; df=4; p=n.s.		
	N	(100)	(173)	(91)
Years of Education	<12	23%	32%	41%
	12-15	54	51	49
	16 +	23	17	10
		χ^2=9.7; df=4; p<.05		
	N	(92)	(163)	(76)
F Score	10-29	51%	33%	20%
	30-49	41	50	38
	50-70	8	17	42
		χ^2=39.2; df=4; p<.001		

TABLE IV

Interhospital Differences in Treatment Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center
Type of Treatment	N	(100)	(173)	(89)
	Psychotherapy	21%	36%	24%
	Somatic	43	64	68
	Other	36	--	8
	$\chi^2=82.8$; df=4; $p<.001$			
Duration of Hospitalization	N	(100)	(173)	(95)
	<7 months	22%	27%	67%
	7-11 months	13	42	27
	≥11 months	65	31	5
	$\chi^2=90.6$; df=4; $p<.001$			
Discharge Evaluation	N	(99)	(172)	(88)
	Recovered, Much Improved	1%	23%	28%
	Improved	80	62	61
	Unimproved	19	15	10
	$\chi^2=29.3$; df=4; $p<.001$			
Discharge Diagnosis	N	(95)	(171)	(85)
	Schizophrenia	43%	52%	54%
	Affective Psychosis	5	22	17
	Psychoneurosis and Personality Disorder	52	26	29
	$\chi^2=23.8$; df=4; $p<.001$			

TABLE V

Duration of Hospitalization By Age

PERCENTAGE OF AGE GROUP STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
20-29	73	36	6
30-39	61	30	6
40-49	30	20	0
50 +	36	0	0

Dr. M. Frick

Jan 2/26/58

THE AMERICAN PSYCHOANALYTIC ASSOCIATION

SUMMARY AND FINAL REPORT OF THE CENTRAL FACT-GATHERING COMMITTEE

The Central Fact-Gathering Committee was established by this Association in 1952 and charged with the responsibility of setting up a method for pooling the significant data of psychoanalytic practice. Starting modestly and testing a procedure that ensured professional secrecy, it was hoped that increasingly valid, meaningful data might be accumulated. However, the long-recognized difficulties -- diagnosis, nomenclature and measure of effectiveness -- all have led to increasing resistance and a resultant falling-off in the number of completed questionnaires. Scarcely any reports are now being received.

Therefore, it was recommended at the last meeting of the Association that this Committee be discharged and its materiel stored until such time as further developments warrant confidence in the use of the statistical method in psychoanalytic validation.

This summary of the material is being sent to you for your study and files. Although some members of the Committee thought otherwise, the Committee as a whole, the Executive Council and the membership at the last Business Meeting of the Association in December, 1957 approved the opinion that none of this material be published. It is not that the figures can be used to prove analytic therapy to be effective or ineffective, but that the material on which either opinion may be based is inadequately established, and controversial publicity on such material cannot be of benefit in any way. We trust that all will agree and will limit discussion of this material to those professionally qualified to recognize its serious limitations.

This summary is divided into two sections: Part I, the summary of the material from the Initial Questionnaires, and Part II, of the material from the Final Questionnaires.

PART I

We received a total of about 10,000 Initial Questionnaires and 3,000 Final Questionnaires, from about 800 participants. Of the 800, about 350 were members of the then total membership of 530, and 450 were senior candidates of the then total 600 senior candidates.

SUMMARY OF DATA FROM INITIAL QUESTIONNAIRES

1. Sex: Male: 48%. Female: 52%.

2. Race: White: 99%. (U.S. Census: White: 89%. Colored: 11%.)

DEPARTMENT OF
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GLEN OAKS, N. Y.

3. Age of patients:

	Percentage of total
Up to 12 years:	2
13-18	2
19-25	14
26-35	48
36-45	27
46 and over:	8

4. Highest educational level: 60% of all patients are at least college graduates. (25% college graduates, 8% attended graduate school, and 27% more completed graduate school.) (U.S.Census: 6% are college graduates.)

5. Income:

	(In thousands)						Over
	1-5	6-10	11-15	16-20	21-40	41-60	$60,000
% in analysis:	22	25	16	13	16	4	3
% in psychotherapy:	35	28	13	8	9	2	2
U.S.Census:	71	23	6 (over $10,000)				

6. Previous treatment:
Regardless of type of diagnosis, about 1/6 or 1/7 of all patients had had previous analysis. 1/3 of the cases of neuroses and 1/2 of the cases of psychoses had had previous psychotherapy. Some had had both. About half of the cases of psychoses had had previous psychiatric hospitalization, as did 1/10 of the cases of neurotic reactions and character neuroses.

Of the group of cases being re-analyzed (i.e., 1/6 of all), only about 1/6 of them are being re-analyzed by the previous analyst. The other 5/6 chose another analyst.

7. Present treatment:
54% of all cases in treatment are listed as being in analysis, and 46% in psychotherapy. The percentage runs from 60-65% in analysis in the neuroses, to 40% in analysis in the borderline cases, and 20% in the schizophrenias.

8. Place of treatment:
Private office: 94%. Out-patient clinics: 4%. Psychiatric & general hospital: 1%.

9. Frequency of treatment:

	Per week:					
	1	2	3	4	5	6 or more
% in analysis:	1	6	29	41	20	< 2
% in psychotherapy:	7	42	33	13	3	< 1

10. Use of psychological projective tests:
The tests are reported as being carried out in approximately 25% of the cases. In 75% of the cases given psychological tests, the clinical diagnosis was in agreement with the tests.

11. Diagnoses:

Initial diagnoses: The following diagnostic listings are presented with full appreciation of and emphasis on their inadequacy, invalidity, uncertainty and probable insignificance. It reminds one of Freud's remarks when chided about the lack of statistics in psychoanalysis, in 1913:

"To compile statistics is at present impossible. To begin with, we work with much smaller numbers than most other doctors who devote so much less time to individuals. Then, the necessary uniformity is lacking which alone can form a basis of any statistics. Should we really count together apples, peas, nuts? What do we call a severe case? Moreover, technique changes and what about the numerous partially analyzed cases and those whose treatment had to be discontinued for external reasons?"

ORDER OF FREQUENCY OF GROUPS OF DISORDERS

	Percent of total
Psychoneuroses	39
Personality trait disturbances (character neuroses)	33
Personality pattern disturbances (borderlines)	11
Psychotic reactions	9
Perversions	5
Addictions	2
All others	1
Psychosomatic disorders co-existent in:	11

ORDER OF FREQUENCY OF SPECIFIC DISORDERS

Passive-aggressive personality	16
Compulsive personality, & Anxiety reaction (each)	14
Depressive reaction	9
Schizophrenias	7
Phobic reaction, Obsessive-compulsive reaction, & Schizoid personality (each)	6
Perversions	5
Conversion reaction, & Emotionally unstable personality (each)	3
Dissociative reaction, Inadequate personality, Cyclothymic personality, Paranoid personality, & Addictions (each)	2
Paranoia, & Manic-depressive reactions (each)	1
Psychosomatic disorders co-existent in:	11

Some additional data: Of the neurotic reactions, dissociative, conversion, depressive and phobic reactions were much more frequent (2 to 3 times more) in females than in males. Obsessive-compulsive reactions were somewhat more frequent in males than in females. The diagnosis of anxiety reaction was made equally in males and females.

The diagnosis of borderline disorders, "schizoid", "paranoid", etc., and of schizophrenia was equally distributed between males and females. Homosexuality was diagnosed two to three times as frequent in males as in females, as were the other reported sexual deviations.

SUMMARY OF MATERIAL FROM THE FINAL QUESTIONNAIRES

We have received about 3,000 Final Reports. These were on cases that had been in treatment at the time the CFG program began, or that began treatment thereafter. As it became increasingly evident that significant figures could not be obtained because of the previous mentioned lack of uniformity, we confined our study to a more intensive investigation of the neurotic reactions that had "completed" treatment. We cannot say what happened to all of the cases that were in treatment during this program, because only about 1/3 to 1/4 of the cases were terminated during this period. The following information from the Final Reports may be of interest.

We found that out of 595 cases of neurotic reactions which undertook analysis, 306 were reported as having been "completely analyzed", that is, approximately 50%, and the average duration was 3-4 years. (Were this study to be continued, this figure might be higher, as there might be a larger percentage of longer analyses. However, it would not be lower.) Follow-up questionnaires were sent to the participants who had sent in these 306 "completely analyzed" reports. We received a return of 210 replies, that is 70%. Below is a summary of the supplementary information on the above Final Reports of "completely analyzed" cases of neurotic reactions:

Is there any doubt in your mind regarding the diagnosis?	Yes: 28%
Did you think there was an underlying psychosis at any time?	Yes: 25%
Had the patient been in analysis previously?	Yes: 18%
Was the patient in standard, or classical, analysis?	Yes: 90%

Of these 210 supplementary questionnaires received, 80 were listed as "cured" cases. In 35 of these, all of the symptoms were reported as "cured", and in 45 residual symptoms remained.

In the 130 questionnaires received on "improved" cases, the improvement was moderate in 74 cases, great in 46, and slight in 10.

From the above, one might draw the conclusion that about 97% of patients who undertake analysis for neurotic reactions and "complete" it, are "cured" or "improved". Of the 50% who do not complete their analyses in this group of disorders, about half discontinue apparently because they were improved. The other half discontinue for "external" reasons primarily, because they did not improve, or were considered untreatable, transferred to other analysts, or required hospitalization. The most frequent reason given for discontinuing, apart from being improved, was "external reasons".

RESULTS IN COMPLETE ANALYSIS OF NEUROTIC REACTIONS

	Final Reports	In Analysis	Analysis Completed	Cured	Improved	Unimproved
Anxiety reaction 000-X01 - 1,120 cases	335	183	90	35	52	3
Dissociative reaction 000-X02 - 175 cases	70	38	26	11	15	0
Conversion reaction 000-X03 - 250 cases	85	46	23	11	11	1
Phobic reaction 000-X04 - 500 cases	200	104	61	17	42	2
Obsessive-compulsive reaction 000-X05 - 500 cases	170	108	43	14	28	1
Depressive reaction 000-X06 - 700 cases	250	116	63	29	34	0
TOTAL	1,110	595	306	117	182	7
Average Per Cent:			50	37	60	3

REPORTED RESULTS IN

	Depressive Reactions 000-X06		Anxiety Reactions 000-X01		Phobic Reactions 000-X04	
Total Final Reports:	250		335		200	
In analysis:	116		183		104	
	Compl'd	Discont'd	Compl'd	Discont'd	Compl'd	Discont'd
Cured	29		35		17	
Improved	34	30	52	43	42	12
Unimproved		7	3	9	2	4
Untreatable		4		5		2
Transferred		2		7		12
Hospitalized						1
External reasons		10		29		12
TOTAL	63	53	90	93	61	43

REPORTED RESULTS IN

	Obsessive-Compulsive Reactions, 000-X05		Passive-Aggressive Personality, 000-X52		Compulsive Personality, 000-X53	
Total Final Reports	170		441		365	
In analysis	108		232		237	
	Compl'd	Discont'd	Compl'd	Discont'd	Compl'd	Discont'd
Cured	14		23		29	
Improved	28	31	72	60	77	62
Unimproved	1	10	2	22	3	17
Untreatable		5		4		4
Transferred		8		10		10
Hospitalized				2		
External reasons		11		37		35
TOTAL	43	65	97	135	109	128

	Schizophrenia 000-X21 - X29		Schizoid Personality 000-X42		* Homosexuality 000-X63	
Total Final Reports	234		185		101	
In analysis	42		82		65	
	Compl'd	Discont'd	Compl'd	Discont'd	Compl'd	Discont'd
Cured	4		5		8	
Improved	3	8	28	13	13	16
Unimproved	2	6	1	9	1	10
Untreatable		3		4		3
Transferred		5		3		5
Hospitalized		4		2		
External reasons		7		18		9
TOTAL	9	33	34	48	22	43

* In all these eight reported cures of homosexuality, follow-up communications indicated assumption of full heterosexual roles and functioning.

Thinking it might be of some interest to gather the opinions and general experience of the membership on the expectation of results, the following questionnaire was submitted to the membership about a year ago:

> "Given a young person, whom one could analyze four years or more, with all conditions favorable, what would be your expectancy of result, in percentage, of cure, improvement and failure" -- for a list of neuroses, character disorders, schizophrenia, schizoid personality and homosexuality.

We received 120 replies from the membership of about 650. These were the opinions:

1. 45% expected no cure in any of the conditions.
2. 35% expected a 50-100% cure in the neuroses, less in the character disorders, psychoses and perversions.
3. 20% expected a 5-40% cure in the neuroses, less in the other conditions.

Of those that expected no cure or a low percentage of cure, 50% expected moderate improvement, 45% great improvement, and 5% slight improvement. Of those that expected some cures in the various condtions, the average expectancy of cure was:

1. 50% in anxiety, conversion and phobic reactions.
2. 33% in dissociation, obsessional and depressive reactions.
3. 10% in schizophrenia.
4. 20% in homosexuality.

If these figures are combined with the reports of those expecting no cures, the percentage of cure would be about half, i.e., 25% in anxiety cases and phobias, 15% in dissociation, obsessional and depressive reactions, 5% in schizophrenia, and 10% in homosexuality.

Our "findings" suggest a higher percentage of "cures" than the above opinions. (Please note quotation marks!)

All of the foregoing have been presented before closed meetings of the Association and to a number of the societies. Details are available to those members who request them. As Chairman of the Committee, I should like to thank the members of the Committee, the membership, and the participating candidates for their cooperation, advice and criticism.

Respectfully submitted,

Harry I. Weinstock, M.D.
Chairman
Central Fact-Gathering Committee

HIW:as
1/5/58

At different times during the past five years the Committee has included: Drs. Leo H. Bartemeier, Roy R. Grinker, David Kairys, Lawrence C. Kolb, Lawrence S. Kubie, Alfred O. Ludwig, Milton L. Miller, Milton Rosenbaum, and George W. Wilson, and our consulting Statistician, Jack B. Chassan, Ph.D.

January 15, 1959.

TO: Dr. M. Fink
FROM: Drs. R.L. Kahn and N. Siegel

SUBJECT: Social Psychiatric Study at Menninger Foundation, January 8-10, 1959.

We arrived in Topeka Thursday evening, January 7, and reported at the Foundation early the next morning. Dr. Irving Kartus, the Director of the C.F. Menninger Memorial Hospital, was extremely gracious and cooperative in every way. He had prepared the staff and patients beforehand in anticipation of our visit. Staff cooperation at all levels was excellent. There was genuine interest in our study and we had informal discussions with members of the staff.

Dr. Kartus let us use his office as our headquarters and made arrangements for us to secure all appointments and obtain all records and reports that we desired. Prior to our coming he had asked us to provide him with an information sheet indicating all the record data needed for our study. The medical records librarian and her assistant spent four days completing these forms in detail. Since some of this information was not readily available in the charts, Dr. Kartus sent a form to all the staff doctors to obtain this information where needed. It would have taken us perhaps two weeks to obtain all the record information ourselves.

The actual testing of the patients was conducted in two ways. On Thursday about 60 patients were collected in the gymnasium and tested en masse. On Friday, the remaining patients were tested individually in their rooms. During the Friday testing a staff nurse accompanied us at all times to show us where the various patients were located and to introduce us to each patient. Dr. Kartus participated in the administration of the test on the disturbed ward and even gave it to a few patients himself.

Arrangements were made for the records librarian to send us the discharge data once a month during the next year.

On Saturday morning, prior to our departure, we discussed research activities with Dr. Gardner Murphy, Dr. Riley Gardner and Dr. Robert Wallerstein. In addition, we discussed aspects of the clinical program with Drs. Herbert Schlesinger and Philip Holzman.

In summary we achieved every objective of our visit thanks to the extraordinary cooperation of the Menninger staff, particularly Dr. Kartus, the director of the hospital and Mrs. Koontz, the medical records librarian. They were all most graciously hospitable and made us feel welcome and at home.

RLK:JB

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SUBJECT: Social Psychiatric Study at Menninger Foundation, January 8-10, 1959.

We arrived in Topeka Thursday evening, January 7, and reported at the Foundation early the next morning. Dr. Irving Kartus, the Director of the C.F. Menninger Memorial Hospital, was extremely gracious and cooperative in every way. He had prepared the staff and patients beforehand in anticipation of our visit. Staff cooperation at all levels was excellent. There was genuine interest in our study and we had informal discussions with members of the staff.

Dr. Kartus let us use his office as our headquarters and made arrangements for us to secure all appointments and obtain all records and reports that we desired. Prior to our coming he had asked us to provide him with an information sheet indicating all the record data needed for our study. The medical records librarian and her assistant spent four days completing these forms in detail. Since some of this information was not readily available in the charts, Dr. Kartus sent a form to all the staff doctors to obtain this information where needed. It would have taken us perhaps two weeks to obtain all the record information ourselves.

The actual testing of the patients was conducted in two ways. On Thursday about 60 patients were collected in the gymnasium and tested en masse. On Friday, the remaining patients were tested individually in their rooms. During the Friday testing a staff nurse accompanied us at all times to show us where the various patients were located and to introduce us to each patient. Dr. Kartus participated in the administration of the test on the disturbed ward and even gave it to a few patients himself.

Arrangements were made for the records librarian to send us the discharge data once a month during the next year.

On Saturday morning, prior to our departure, we discussed research activities with Dr. Gardner Murphy, Dr. Riley Gardner and Dr. Robert Wallerstein. In addition, we discussed aspects of the clinical program with Drs. Herbert Schlesinger and Philip Holzman.

In summary we achieved every objective of our visit thanks to the extraordinary cooperation of the Menninger staff, particularly Dr. Kartus, the director of the hospital and Mrs. Koontz, the medical records librarian. They were all most graciously hospitable and made us feel welcome and at home.

RLK:JB

May 6, 1959.

MEMORANDUM TO: Dr. Joseph S.A. Miller
FROM: Max Fink, M.D.

SUBJECT: Proposed modification of ward organization.

Our initial experience with the drug therapy evaluation program during past many months has led to the awareness that drug therapy is frequently recommended as a device for behavioral control at a time when patient-doctor transactions are grossly upset. At such times other devices, especially inter-ward transfer, are readily utilized by the staff. The possibility of inter-ward transfer leads to a variety of personnel attitudes, both explicit and implicit, which modify an understanding of drug effects. In order to study the processes of referral, and various aspects of the doctor-patient interaction, we would like to recommend that one ward of the hospital be set aside as a "no-transfer" ward, with a single supervising psychiatrist and resident therapist panel treating all the patients in this ward.

It is our aim in such ward modification to provide an opportunity to experimentally compare two populations within the hospital with regard to therapy choice, effects, etc.; and further, to permit an evaluation of the administrative significance of "no-movement" of patients.

To implement this recommendation, the following suggestions are made:

a) Ward Lowenstein I be designated as a "no-movement" ward. As vacancies occur, consecutive male patients on the waiting list are to be admitted, without selection as to any behavioral characteristics.

b) Patients admitted to Low I will remain in this unit for their hospital stay. In the event that the patient's behavior is such as to be inconsistent with the ward and not modifiable by psychotherapeutic and somatic means, transfer to another institution will be made.

c) A supervising psychiatrist and two (2½ - 3) new residents will be assigned to care for these patients. The patient-resident ratio should be the same as in other wards of the hospital. Residents to be assigned for a year period.

d) Patients on this ward are to have the same privileges, restrictions and opportunities for ancillary therapies (OT, OT, RT, etc) as the rest of the hospital. All hospital regulations will apply equally.

e) Social Service: It is suggested that one (or two) social workers be assigned to work exclusively with this supervisor-resident team, according to the ratio of social workers to patients in existence in the hospital.

f) Psychologic testing: as at present.

It is requested that these changes be instituted prior to July 1 so that new residents may be assigned to the ward at the time of beginning their service.

Respectfully submitted

Max Fink M.D.

MF:JB

cc Dr. L. Robbins
Dr. S. Kwalwasser

June 17, 1959.

Dr. Milton Greenblatt,
Massachusetts Mental Health Center,
72-74 Fenwood Road,
Boston, 15, Mass.

Dear Milt:

I want to take this opportunity to personally thank you and your Staff for the excellent cooperation shown the Hillside workers during their recent visit. They returned laden with considerable data and enthusiastic about the spirit and enthusiasm manifested by your Staff. I am most grateful for your cooperation.

My best regards.

Sincerely yours,

Max Fink, M.D.

MF:JB

August 7, 1959

TO: Dr. William Benjamin
Records Committee
Hillside Hospital

FROM: Department of Experimental Psychiatry

SUBJECT: Recommended modifications of hospital record.

The following four summary data sheets are recommended for your consideration for inclusion in the medical records. While each has clinical relevance, they are derived from experimental hypotheses now under investigation. Inclusion in the records is to be considered within this framework.

A. Social Factors - Intake Form

B. Psychological Test Summary Sheet

C. Ancillary Therapy Participation Record

D. Behavioral Rating Scale - Lorr type.

Respectfully submitted,

Nathaniel Siegel, Ph.D.

Donald F. Klein, M.D.

Robert L. Kahn, Ph.D.

Max Fink, M.D.

cc: L. Robbins
A. Levine
A. Lurie
L. Dailey

A. Social Factors - Intake Form

A simple structured form, of the face-sheet variety, focussed on demographic and social factors relative to the patients' referral and stay at the hospital. The record may include the following types of data, each an answer to a specific question with the response easily coded for IBM use. Such a form should be completed on unsuccessful, as well as successful applicants for admission.

1. Name and residence. If informant other than patient, name, age and relation of informant to applicant.
2. Sex; date and place of birth
3. Number of years in U. S. A., if foreign born
4. Marital status, duration of present marriage, number and duration of previous marriages and how terminated
5. For all persons within the applicant's family of procreation and family of orientation:
   a. Names, sex and address of persons
   b. Ages
   c. Education
   d. Regular occupations
   e. If member deceased, age of patient when death occurred.
6. Education of applicant (in completed years); type of school.

7. Occupational history:

   a. Present occupation and duration of present job

   b. Number of different jobs held during prior five years - if applicant status was other than full-time student or housewife. Indicate duration of each job and why it was terminated.

   c. Self-employed, or works for others?

   d. Does he plan to return to same job as he currently holds after he leaves the hospital?

   e. Has provision been made for this? Kind of provision?

8. Total family income of applicant's immediate household in year prior to admission; if more than one contributor (including welfare agencies), proportionate amounts contributed.

9. Residence:

   a. Number of rooms in present family residence;

   b. Number of years in current residence;

   c. Number of different residences occupied during prior five years (excepting vacation periods).

10. Previous psychiatric treatment record: type, duration, results.

11. A verbatim statement of present complaint.

12. Duration of present complaint.

13. Person or agency referring applicant to hospital.

14. Date when referral for this complaint first suggested.

B. Psychological Test Summary Sheet

This form to contain the summary scores or basic data on all psychological, vocational and experimental-psychological test services to which the patient has been exposed during his hospital stay, including clinical psychology, vocational rehabilitation, creative therapy, experimental psychiatry, etc.

Provision should be made to enter information of a similar nature gathered at other laboratories and which has been made available to the hospital.

Psychological procedures should be identified as to:

1. Name of test or procedure
2. When and where administered
3. Summary scores or data
4. Comments, if any.
5. Signature (initials) of person administering or scoring test.

Tests included, at present:

Wechler-Bellevue
Rorschach psychogram
TAT (note if done)
Draw-A-Person (note if done)
Kuder Preference Record
Occupational Interest Inventory
Minn Rate of Manipulation
Steno Aptitude Tests
Iowa Silent Reading Test
Differential Aptitude Tess
"F" Score, CMI Scale score
Perception of the Upright
Bender-Gestalt
Gottschaldt Figure Drawing
CT Tests

The form of such a record can be detailed elsewhere; but should be so designed as to permit ready IBM coding.

c. Ancillary Therapy Participation Record

Using the concept of weekly blocks of time, participation by the patient in occupational, recreational and creative therapies may be recorded as percentage of total participation. In addition, notations may be made in an available clinical record of the specific activity with a rough guage of degree of participation (active, passive, observer, intermittent, partial, etc.).

A form suggested may include:

Week of Hospital	Special Dates	% of Total Participation	Type of Activity (CT, OT, RT) (RT_1 = Club 1) (RT_2 = Club 2)	Degree of Participation

Such a record could also be broadened to designate immediate regular peer participants.

D. Rating Scale of Behavior.

Present behavioral rating scales are rough guides to behavior. Yet, periodic recording of behavioral patterns by physicians and other observers may provide a meaningful measure of these changes upon which treatment evaluations may be based. At present, the Lorr Scale is in use in the Department of Experimental Psychiatry and has been found useful in recording behavioral change in patients in the psychotropic drug program.

Such ratings may be made on admission and at specified (monthly?) intervals thereafter. They should be kept with the patient's clinical record.

12/23/59

Social Factors Study - Inter hospital

Problems: 1) Special populations - Boston Psycho

A. Court

B. Special State Hosp Study

Pinel-Kahn Phenomenon

♀ } have higher % getting psycho Rx } MF Hosp.
♂ } " " " " drugs + ECT } also at BPH

age: Psychoth. M younger than F
Drugs older than Psychoth

F score. All men. Lower than Boston Psycho
Lower F for each group related to Psycho R

Code for Twin Imp. Study

APR 5 1960

IBM. Column_____	ITEM
1.	HOSPITAL 1. Hillside 2. Menninger 3. Mass. Mental Health
2,3,4.	PATIENT NUMBER
5.	SEX 1. Male 2. Female
6,7.	AGE --. Exact Age 00. No information
8.	RACE 1. White 2. Negro 3. Other 0. No information
9.	RELIGION 1. Protestant 2. Catholic 3. Jewish 00. None or no information
10.	MARITAL STATUS: 1. Single 2. Married 3. Separated 4. Divorced 5. Widowed 0. No information
11.	EDUCATION 1. None 2. 1-6 years 3. 7 4. 8 5. 9-11 6. 12 7. 13-15 8. 16 9. 17+ 0. No information

12. PLACE OF BIRTH
1. USA
2. Foreign Born: English Speaking Countries
3. " " : Germanic & Scandinavian
4. " " : Italy
5. " " : France & Spain
6. " " : Slavic nations
7. " " : Latin America
8. " " : Other
0. No information

13. YEARS IN U.S.A.
1. Native born
2. Less than 1
3. 1-4
4. 5-9
5. 10-19
6. 20-29
7. 30+
0. No information

14. I.Q.
1. 69 or less
2. 70-79
3. 80-89
4. 90-99
5. 100-109
6. 110-119
7. 120-129
8. 130-139
9. 140+
0. No information

15, 16 AGE AT FIRST PSYCHIATRIC CONTACT
--. Exact Age
00. No information

17. PATIENT'S SOCIAL CLASS
1. Class 1
2. Class 2
3. Class 3
4. Class 4
5. Class 5
0. Unknown

18. NUMBER OF PRIOR HOSPITALIZATIONS
1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8+
0. No information

19.

TOTAL PERIOD OF PRIOR HOSPITAL EXPERIENCES
1. Less than 1 month
2. 1-5 mos.
3. 6-11 mos.
4. 12-17 mos.
5. 18-23 mos.
6. 24-35 mos.
7. 36-47 mos.
8. 48-59 mos.
9. 5+ years
0. No information

20.

CONDITION AT DISCHARGE
1. Much improved; recovered
2. Improved
3. Unchanged or slightly worse
4. Deceased
0. No information

21.

DISCHARGE OR ESTABLISHED DIAGNOSIS
1. Psychosis: Schizophrenic reaction
2. Psychosis: Affective reactions
3. Psychosis: Dynamic
4. Psychoneurotic Disorder
5. Personality Disorder
6. Transient Situational Personality Dis
0 No information

22.

TREATMENT: General
1. Psychotherapy
2. ECT
3. Drugs
4. 1 + 2
5. 1 + 3
6 2 + 3
7. 1 + 2 + 3
8. None
0. No information

23.

~~TREATMENT: Organic~~
TREATMENT: Psychotherapy
1. Psychoanalysis
2. Psychotherapy: M.D.
3. Psychotherapy: Other
4. Group Therapy
5. Unspecified
6. No psychotherapy
0. No information

24.

TREATMENT: ORGANIC
1. Phenothyazines (CP,P,Tril.)
2. Meprob., deprol, equanil
3. Tofranil
4. 1 + 2
5. 1 + 3
6. 2 + 3
7. 1 + 2 + 3
8. Other
9. No organic treatment
0. No information

25

LENGTH OF HOSPITALIZATION
BEFORE ORGANIC TREATMENT
1. Less than 1 week
2. 1-4 weeks
3. 1-2 months
4. 3-4 "
5. 5-6 "
6. 7-8 "
7. 9-10 "
8. 11 + months
0. No information

26.

LENGTH OF CURRENT HOSPITALIZATION
1. Under 1 month
2. 2 months
3. 3 months
4. 4-5 months
5. 6 months
6. 7-8 months
7. 9-11 months
8. 12 months
9. 13+ months
0. No information

27, 28.

"F" SCORE
--. = exact score
00. = No information

APA-
NAMH-
GHI

American Psychiatric Association

National Association for Mental Health

Group Health Insurance Inc.

RESEARCH PROJECT

221 FOURTH AVENUE, NEW YORK 3 N. Y. SPRING 7-6000, Ext. 399

(Investigation Into the Insurability of Psychiatric Treatments)

Helen H. Avnet, *Project Director*

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David Flicker, M.D.

November 28, 1960

TO: Participating Psychiatrists

FROM: Harvey J. Tompkins, M.D. and John M. Cotton, M.D.

SUBJECT: Psychiatric Research Project

Thanks to the cooperation of our Participating Psychiatrists, the Project, covering a sample group of 76,000 persons, has been operating satisfactorily since July 1, 1959.

Attached is a report on our survey of participating psychiatrists, which we think you will find interesting.

An address recently made by Arthur H. Harlow, Jr., President of Group Health Insurance, Inc., on the first year's experience under the Project, will be summarized in the December issue of the Bulletin of the New York State District Branches of the American Psychiatric Association.

If you would like additional information please write us and we will be happy to comply with your request.

DEPARTMENT OF
EXPERIMENTAL PSYCHIATRY
HILLSIDE HOSPITAL
GLEN OAKS, N. Y.

NOV 29 1960

Financed by National Institute of Mental Health and Group Health Insurance, Inc.

QUESTIONNAIRE SURVEY OF PARTICIPATING PSYCHIATRISTS

As a possible aid in the eventual evaluation of results of treating Project cases, a survey was conducted on the professional qualifications and customs of participating psychiatrists.

Of 1150 participants, 1008 returned questionnaires. In addition, data on age, sex, and qualifications were obtained from the latest medical directories for many of the non-respondents.

In order to encourage the broadest possible response, the questionnaire was limited to one page with a dozen questions in all, mostly check-offs, and with space provided for comments.

From the Project's point of view, the most important findings of the survey are:

(1) The great majority of participating psychiatrists are well qualified, judging by accepted standards in the field.

(2) Over three-quarters of participants regard themselves as primarily analytically and psychologically oriented in their approach to treatment.

SEX, AGE, LOCATION - (Tables 1 - 3)

More than half the participants are between 35 and 49 years of age. About every tenth participant is a woman. The majority practice in Manhattan, although the suburbs are fairly well represented.

TABLE 1 - SEX OF PARTICIPATING PSYCHIATRISTS*

Male	1001 (88 per cent)
Female	138 (12 per cent)

TABLE 2 - AGE DISTRIBUTION

Age Group	Number in Group	Per Cent of Total
28-34	187	16.4
35-39	204	17.9
40-44	144	12.6
45-49	224	19.7
50-54	168	14.8
55-59	99	8.7
60-64	71	6.2
65 and over	42	3.7
Total	1139*	100.0

*excludes those who have resigned or who have died

TABLE 3 - AREA OF PRACTICE

Area	Number in Area	Per Cent of Total
Manhattan	649	57.0
Brooklyn	98	8.6
Queens	59	5.2
Bronx	22	1.9
Staten Island	5	.4
New Jersey	73	6.4
Nassau	79	7.0
Suffolk	49	4.3
Westchester	66	5.8
Rockland	16	1.4
Other	23	2.0
Total	1139	100.0

TYPE OF PRACTICE

Only 17 participants confine their practice to hospital work. The majority treat both office and hospital patients. Forty-three per cent treat only in the office, referring their hospital cases to colleagues.

Seven out of ten answering this question (1000) report that they also do out-patient clinic work.

QUALIFICATIONS

Of 1096 participants for whom information is available, 85 per cent are either Diplomates of the American Board of Psychiatry and Neurology or are "Board eligible." Another two per cent are qualified as psychiatrists, with an "SI" rating, under the New York State Workmen's Compensation law. Of the remaining 13 per cent, 6 per cent are accredited as psychiatrists by the New York State Department of Mental Hygiene, with the "QP" rating, and 7 per cent meet the qualifications for membership in the American Psychiatric Association.

Table 4 shows this over-all distribution, and Table 5 breaks it down by age:

TABLE 4 - QUALIFICATIONS

	Number	Per Cent	Cumulative Per Cent
DPN*	585	53.4	53.4
DPN eligibility only*	349	31.8	85.2
SI rating only**	23	2.1	87.3
QP rating only***	61	5.6	92.9
APA membership only	78	7.1	100.0
Total Known	1096	100.0	

*Diplomate, American Board of Psychiatry and Neurology
**Qualified as psychiatrist under New York State Workmen's Compensation Law
*** " " " by New York State Department of Mental Hygiene

TABLE 5 - QUALIFICATIONS AND AGE

Age Group	Per Cent of Age Group with Boards or Eligibility	SI Rating Only
28-34	80	*
35-39	90	*
40-44	89	2
45-49	87	3
50-54	90	*
55-59	86	2
60-64	71	8
65 and over	68	10
All Groups (Total Reporting 1096)	85	2

*less than 1 per cent

ORIENTATION

When invitations to participate in the Project were issued, reasons for non-participation were also solicited. Most refusals were based on the practitioner's analytic orientation: The 15 sessions provided by the Project were felt to be far from adequate in terms of the respondent's usual "A-P" (analytic and psychological) approach to treatment.

Since the "D-O" (directive-organic) and eclectic practitioners were more apt to be optimistic about the effectiveness of short-term therapy, there seemed a possibility that enrollment from these groups might dominate the list of participants.

This theory was effectively demolished by the survey. Of over 1000 respondents, 77 per cent checked "analytical and psychological" as their primary orientation, 10 per cent checked "directive and organic," and 13 per cent checked "other", usually specifying "both" or a combination of the other two such as "organic and psychological."

Although the majority with the primary A-P orientation exists at every age level, it becomes less of a majority with each age increment, so that what starts out as a 92 per cent A-P orientation, in the youngest group, comes down to a 53 per cent A-P orientation in the over-60 group, as shown in Table 6.

TABLE 6 - PRIMARY ORIENTATION AND AGE

Age Group	Per Cent of Each Age Group with Specified Primary Orientation: A-P	D-O	Other Combination
28-34	92	2	6
35-39	89	3	8
40-44	85	3	12
45-49	76	10	14
50-54	61	21	18
55-59	59	18	23
60 and over	53	25	22
All Groups (Total Reporting 1002)	77%	10%	13%

A primary orientation toward one approach does not of course mean that an individual will always use that approach. A psychiatrist who is primarily A-P oriented may use organic approaches on occasion, as shown below.

ATTITUDES TOWARD DRUGS, SHOCK THERAPY, GROUP THERAPY

Drugs appear to be almost a universal tool among psychiatrists (98 per cent).

On shock therapy and group therapy, there were far fewer answers, and it is impossible to evaluate whether a non-response indicates a negative attitude or an oversight. But a comparison of the number responding to each question may in itself be indicative to some extent of the degree of acceptance achieved by each method of treatment. The total responses and the percentage of affirmative answers follow:

Question	Total Number of Answers	Per Cent Affirmative
Do you prescribe drugs?	952	98
" " " shock therapy?	693	75
" " " group therapy?	694	51

A cross-tabulation of the answers to these questions with the primary practice orientation of the respondent shows that the use of drugs and shock treatment is not a distinguishing characteristic of any group, although the non-A-P's are much more apt to recommend shock therapy than their colleagues.

TABLE 7 - PERCENTAGE OF REPORTING PSYCHIATRISTS WHO PRESCRIBE SHOCK THERAPY, DRUGS, AND GROUP THERAPY, BY PRACTICE ORIENTATION

Practice Orientation	Per Cent of Each Orientation Who Prescribe - Shock Therapy	Drugs	Group Therapy
A-P	68	97	54
D-O	92	100	34
Combination	90	100	50

There appears to be no dearth of personnel ready to administer shock therapy (247 checked this) or to conduct group therapy (208 checked this).

FEES

A question was asked as to differentiation between fees for initial consultatior and treatment. Of 981 respondents, 45 per cent do differentiate, 55 per cent do not.

The question as to the respondent's usual fee for a private office session brought 987 responses, of which 789 were explicit, 198 stated a range. In other words, 20 per cent of the respondents do not have a set fee. For most of these, the range indicated was either $15-$20 or $20-$25, but there were instances of a twenty-dollar spread in the usual fee - e.g.,"$15-$35" or"$30-$50".

For those stating a definite usual fee, the distribution is as follows:

Usual Fee	Per Cent Charging
$15	11
$20	49
$25	36
$30 or more	4

Addendum:

PSYCHIATRISTS AND THE OPERATION OF THE PROJECT

Because of the enthusiastic response of psychiatrists to the Project, one of the disappointments of the first year's operations was the relatively small number who actually saw a Project patient - fewer than a third of the participating psychiatrists. This includes cases treated by more than one psychiatrist, and multiple cases in the same family (usually treated by the same psychiatrist). The number of psychiatrists and patients* seen by each was as follows:

Number of Psychiatrists	Number of Patients Each
201	1
63	2
21	3
15	4
8	5
4	6
1 each	7,8,9,10,11

*Excluding cases having hospital care only.

Psychiatrists having a number of cases are usually child psychiatrists, who are in relatively short supply.

Compared with all participating psychiatrists, the psychiatrists who treated Project cases were on the whole somewhat better qualified (91% vs 87% having Boards or Board eligibility) and somewhat less primarily A-P oriented (67% vs 77%). The treatment they rendered was mostly individual office psychotherapy. Four per cent of the cases were hospitalized; seven per cent received shock therapy (including hospital cases); three per cent received group therapy; seven per cent received psychological testing. In thirty-five per cent of the office cases, drugs were prescribed at one time or another during the course of treatment.

On the basis of the few (36) Project cases treated by two or more doctors, it would appear that psychiatrists are rarely in exact agreement about the diagnosis of a particular case. In 12 cases there was a basic difference as to the severity of the condition, with one doctor calling it a psychosis, the other something less severe. In four additional cases there was a difference as to major category (usually neurosis or personality disorder). In another six, there was a partial difference as to major category, with one doctor calling it a mixed diagnosis; and in another 9, there was agreement as to major category but differences appeared in the sub-categories. Out of 36 cases there were identical diagnoses in 5.

Another demonstration of the individuality of psychiatrists emerged during attempts to classify frequency of treatment under the Project. Although six specific classifications were available for coding purposes, 42 per cent of the cases fell into the "other" or non-classifiable category. Pursuit of this led to a fascinating variety of frequencies of individual office visits, each adding up to exactly 15 visits (the Project limit). There are combinations extending from two months (6 visits one month, 9 the next), to seven months (4,1,2,2,2,3,1; or 1,5,4,2,1,1,1), and in between come all sorts of combinations spreading the visits over 3 or 4 or 5 or 6 months.

So far as is known to the Project administration, there has been a negligible amount of abuse, or attempts to take unfair advantage of the plan. Certain difficulties inevitably arise with those who do not read their mail or instructions, and there are occasional misunderstandings resulting from patients belatedly identifying themselves as Project-eligible. As far as can be determined, broken appointments are not a serious source of difficulty. In general, the Project has generated the enthusiasm and cooperation which sometimes characterize pioneering ventures.

Social Class, Diagnosis, and Treatment In Three Psychiatric Hospitals

In 1958, Hollingshead and Redlich published an influential volume, (1), in which they reported relationships between social class, diagnosis, and the treatment of mental disorders. During 1958, Kahn, Pollack and Fink (2) reported studies at Hillside Hospital where it was shown that when education was used as an index of social class, it was related to who was referred for convulsive therapy, and to the therapeutic response to this treatment instrument.

The Hollingshead and Redlich study was carried out before the so-called "tranquilizing" drugs achieved wide popularity. It was reported, for example, that drug therapy was the principal therapy in only 4.3% of the cases they studied. The Kahn, Pollack & Fink study was also done at a facility, where at the time, convulsive therapy was the major organic therapeutic device which was used.

Two of the hospitals were well known private facilities. The third was the research hospital of a state hospital system attached to a university medical center. Most of its patients were voluntary admissions. Each of the hospitals were psychoanalytically oriented and each institution maintained affiliations with a local analytic institute. The hospitals were located respectively in the mid-West, Middle Atlantic, and New England.

The questions we wished to answer in relation to social classes for the different hospital settings were:

(1) What is the relation of patient social class to (a) diagnosis, (b) treatment, and (c) length of hospitalization.

(2) For these variables, are there differences between hospitals which treat different modal class groups?

Pppulation & Methodology:

During the Winter 1958-1959, a research team visited each of the three hospitals. The total adult in-patient population of each hospital who were hospitalized on

voluntary certificates were studied on a given visitation day. Each patient was then followed through the course of his hospitalization and information regarding his treatment, length of hospitalization and discharge status was appended to the data sheets for each patient studied. All patients discharged from this hospital within eighteen months after the study began, were included in the sample. This included approximately ninty per cent of the patients originally studied. Hollingshead two factor index of social position was emphasized which utilizes weighted occupational and educational scores. Data for each patient was transferred to the Hollingshead cards to facilitate statistical analyses. Significances were computed on the $p = .05$ level.

Results: Class Distribution within Hospitals:

In Hospital "A", 31% of the patients were assigned to Classes I and II, 12% to Class III, and 57% to Classes IV and V. In Hospital "B", 27% of the patients were in Classes I and II, 34% in Class III, and 39% in Classes IV and V.

In Hospital "C", 82% were in Classes I and II, 17% in Class III, and 1% in Class IV. Viewed in terms of the median class of its patients, Hospital A's patients have the highest status (Md: Class II), Hospital C's, the lowest (Md: Class IV) and Hospital B's patients fell between the two, (Md: Class III). For purpose of classification we visualize Hospital A as treating primarily upper class groups of patients, Hospital B, a middle class group, and Hospital C, a lower class group.

Hospital and Diagnosis:

Comparing the proportion of its patients which each hospital diagnosed as either psychotic or non-psychotic, we found significant diagnostic differences between institutions (X^2 - 12.78; df= 2; $p < .01$). In the hospital which tended to treat predominantly lower class patients, 75 per cent of all the patients were considered psychotic; in the hospital treating predominantly the middle class group, 74% per cent were diagnosed as psychotic, while in the hospital treating predominantly the upper class group, 53 per cent were called psychotic.

Social Class and Diagnosis:

It is interesting to note some of the diagnostic differences in hospitals, when the class factor was kept constant. In Classes I and II we found 36% of the patients were called neurotic, in Class III, 29% were neurotic, and in Classes IV and V, 20% were neurotic. The direction of these statistics tended to support the observation of Hollingshead and Redlich but for the hospitalized patients never theless, did not reach significance on the %5 level ($X^2 = 5.77$; df = 2; p = N.S.) ($X^2 = 5.99$, p = .05).

Hospitals and Treatment:

We found differences in the employment of organic therapies, i.e., the psychotropic compounds and convulsive therapies in the three institutions ($X^2 = 12.12$, df = 2, $p < .01$). In the facility which tended to treat upper class patients, 45% of the patients received some form of organic treatment, in the institution treating middle class patients, 64%, and in the hospital treating primarily lower class patients, 45% received organic therapy.

Social Class, Diagnosis and Treatment:

In combined populations of the three hospitals, there are differences between the major forms of treatment that psychotic and neurotic patients experience ($X^2 = 62.7$, $df = 2$; $p < .001$). In 45% of the neurotic cases as compared with 20% of the psychotic cases, psychotherapy was the dominant treatment modality. Organic therapies were administered to 32% of the neurotics and 76% of the psychotic cases. Patients who received neither organic or psychotherapy, constituted 23% of the neurotic cases and 4% of the psychotic cases. It has been shown that within the hospital settings studied, organic forms of therapy were more frequently given to psychotic than neurotic patients. In testing the hypotheses that a higher proportion of lower class than upper class patients receive organic forms of treatment, we found the hypothesis not to be supported for either the neurotic or psychotic groups. Within each social class group, psychotic patients received organic treatment more frequently than non-psychotic patients but social class was not significantly related to whether or not patients

who were either psychotic or neurotic would receive organic therapy.

Social Class and Length of Hospitalization:

When we combined the populations from the three hospitals, we found that the mean hospitalization period for Class I & II patients was 9.2 months, Class III 9.8 months, and Class IV and V, 7.2 months. We found no statistical difference between the length of hospitalization of Class I, II and III patients ($t = 1.66$, $df = 196$, p = N.S.) but found significant differences between Class I, II and IV and V patients ($t = 7.69$, $df = 221$, $p < .001$) .

Hospitals and Length of Treatment:

The figures are reflected in the different mean hospitalization periods that were found in the three hospitals. In Hospital A, the upper class hospital, patients were hospitalized for an average of 11 months, in Hospital B, the middle class institution, for 8.9 months, and in Hospital C, the lower class facility, for 5.4 months.

Recapitulation and Conclusion:

The primary purpose of this study has been to study the relationship of social class and psychiatric diagnosis and treatment in hospitals which have available comparable treatment facilities. We know that because of economic differences, class members may gravitate toward institutions which have available different kinds of therapy, and thus we have selected three hospitals which employ comparable ranges of therapy and which tend to treat members of different socioeconomic groups. In effect, what we are thus asking is: "What is the hospital experience of members of different socioeconomic groups where all forms of therapy are equally available?"

Within the hospital setting described, we found that social class was not related to whether a person was diagnosed as psychotic or non-psychotic. We also found social class to be unrelated to the employment of organic therapy. We believe that the relatively wide use that

psychotropic compounds now enjoy may tend to blur the sharper distinctions whihh existed some years ago when organic treatment was identified with the shock and coma therapies.

We found that lower class position was related to the length of time a patient spent in the hospital settings described.Lower class patients (Classes IV & V) were hospitalized for shorter periods of time than Class I, II Or III patients.

Major differences were found between the three hospitals. The hospital treating upper class patients tended to diagnose the higher proportion of its patients as non-psychotic, tended to employ a lower comparative percentage of organic therapy, and left its patients in treatment for the longest period of time. In contrast, the hospital which tended to treat patients primarily from the lower portion of the economic spectrum had the highest proportion of psychotically diagnosed patients, employed organic treatment more often than the other hospitals described, and left patients in treatment for the shortest period of time.

In so far as the three hospitals studied are concerned, social class would appear to be less intimately related to diagnosis and treatment than would the nature of the hospital itself, and the social group to which it addresses itself.

Social Class, Diagnosis and Treatment in Three Psychiatric Hospitals

INTRODUCTION:

Two hundred and ninety patients in three non-custodial active treatment psychiatric hospitals, which offered multiple therapies, primarily to upper, middle or lower class persons were studied during 1959-60.

Questions studied were whether social class for hospitalized patients was related to (a) diagnosis, type of treatment, and length of treatment and (b) relationship of patient membership in these "upper", "middle", and "lower" class hospitals to diagnosis, type of treatment and length of treatment.

PROCEDURE:

Voluntxarily admitted patients in three well-known geographically separate hospitals which offered

Amer. Soc. Soc.

a range of therapeutic programs, where patients were primarily representative of the upper, middle or lower classes, were studied as of a given hospital census day in the Winter, 1958-1959 . Patients were followed throughout their course of hospitalization and details concerning their background, treatment and diagnosis were recorded.

RESULTS:

Social class was found to be related to length of active treatment within the hospital settings. Class IV and V patients remained in treatment for shorter periods of time than Class I, II or III patients. Significant relationships between social class, diagnosis and treatment were not observed.

Significant relationships were found between patient membership in upper, middle and lower class

hospitals and diagnosis, treatment and length of hospitalization. The greater the socio-economic status of the hospital, regardless of whether a patient was a member of a given socio-economic group, the more likely the patient would be diagnosed as non-psychotic, would receive non-organic therapy, and would be hospitalized for the longest period of time.

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Two hundred and ninety patients in three non-custodial active treatment psychiatric hospitals, which offered multiple therapies, primarily to upper, middle or lower class persons were studied during 1959-60.

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Social Class, Diagnosis and Treatment in Three Psychiatric Hospitals

INTRODUCTION:

Recent studies have indicated a relationship between social class and psychiatric diagnosis and treatment. The present study was designed to study whether social class for hospitalized patients was related to diagnosis, type of treatment and length of treatment, in three institutions with differing social class membership of the patient populations.

PROCEDURE:

Two hundred and ninety voluntarily admitted patients to the C.F. Menninger Memorial Hospital, Hillside Hospital and the Massachusetts Mental Health Center were studied as of a given hospital census day in the Winter, 1958-1959. Patients were followed by a research team throughout their course of hospitalization and details concerning their background, treatment and diagnosis were recorded.

RESULTS:

Social class was found to be more significant in comparisons between hospitals than in inter-institution analysis. Within institutions social class was significantly related to length of hospitalization only; class IV and V patients remained in treatment for shorter periods than those in classes I, II and III. Comparison between hospitals showed significant relationships between social class and diagnosis and treatment as well as length of hospitalization. The higher the class status of the hospital, the more likely the patient would be diagnosed as non-psychotic, would not receive somatic therapy and would be hospitalized for a longer period. The class status of the hospital was more important than the individual patient's class membership in determining these relationships.

~~1/10/61~~

January 10, 1961.

Dr. Gardner Murphy,
Director of Research,
Menninger Foundation Hospital,
Topeka, Kansas.

Dear Dr. Murphy:

In 1959, Drs. Siegel, Kahn and Pollack of this staff arranged with Dr. Kartus, to undertake a comparative population sample study of the in-patients at Menninger Hospital, Massachusetts Mental Health Center and Hillside Hospitals. The data collection phase of this study was completed in September, and we have processed a large part of the statistics and made some preliminary judgments.

It is our desire to present a comparative statement of the "Social Class, Diagnosis and Treatment in Three Psychiatric Hospitals" to the American Sociological Society in August. The data has been analyzed according to hypotheses under study in the in-patient service of Hillside Hospital in 1957 and 1958. An abstract of this initial report is enclosed for your information.

We are pleased to credit the cooperation of the staffs of all three institutions in enabling this study to be accomplished. If there is any additional communication necessary for the presentation of this data, would you let me know?

Dr. Robbins joins us in wishing you a successful and happy year.

Sincerely yours,

Max Fink M.D.

Encl.
MF:JB

0+6

~~II: 1/10/61~~

Social Class, Diagnosis and Treatment

in Three Psychiatric Hospitals

Nathaniel Siegel Ph.D. Max Pollack Ph.D, Robert L Kahn Ph.D & Max Fink M.D.

INTRODUCTION:

Recent studies have indicated ~~a~~ significant relationships between social class, ~~and~~ psychiatric diagnosis and treatment selection. The present study was designed to study whether social class for hospitalized patients was related to diagnosis, ~~and~~ type ~~of treatment~~ and length of treatment, in three institutions with patient populations of differing social class membership. ~~of the patient populations~~.

PROCEDURE:

Two hundred and ninety voluntarily admitted patients to the C.F. Menninger Memorial Hospital, Hillside Hospital and the Massachusetts Mental Health Center were studied as of a given hospital census day in the Winter, 1958-1959. Patients were followed by a research team throughout their course of hospitalization and details concerning their background, treatment and diagnosis were recorded.

From The D. of E.P., H.H., G.O. N.Y. The Cooperation of the staff of the C.F. Menninger Memorial Hospital, ~~and the~~ Topeka; and the Massachusetts Mental Health Center, Boston, is gratefully acknowledged.

RESULTS:

Social class was found to be a more significant variable in comparisons between hospitals than in inter-institution analysis. Within institutions social class was significantly related to length of hospitalization only; class IV and V patients remained in treatment for shorter periods than those in classes I, II and III. Comparison between hospitals showed significant relationships between social class and diagnosis and treatment as well as length of hospitalization. The higher the class status of the hospital, the more likely the patient would be diagnosed as non-psychotic, would not receive somatic therapy and would be hospitalized for a longer period. The class status of the hospital was more important than the individual patient's class membership in determining these relationships.

~~1/10/61~~

January 16, 1961.

Dr. Milton Greenblatt,
Masaachusetts Mental Health Center,
72-76 Fenwood Road,
Boston, Mass.

Dear Milt:

It was good talking to you in Washington. I think the meetings went very well and I especially liked Shep Kellam's report on patient-patient interaction. The Friday afternoon session was also quite good, bringing out the similarities in the VA, Kurland and California comparative drug studies. There is little need for placebo controls now in evaluating new drugs - and comparative efficacy tasks are what seem to be in order.

Enclosed is our initial abstract which we are sending to the American Sociological Society.

My best regards.

Sincerely yours,

Max Fink M.D.

Encl.
MF:JB

IBM. Column	ITEM
1.	HOSPITAL 1. Hillside, 1958 2. Menninger 3. Mass. Mental Health 5. Hillside, 1957 6. Hillside, 1960. 7. Helps AP 157 8 " " '58 9. " " '60
2,3,4.	PATIENT NUMBER
5.	SEX 1. Male 2. Female
6,7.	AGE --. Exact age 00. No information
8.	RACE 1. White 2. Negro 3. Other 0. None or no information
9.	RELIGION 1. Protestant 2. Catholic 3. Jewish 00. No or no information
10.	MARITAL STATUS: 1. Single 2. Married 3. Separated 4. Divorced 5. Widowed 0. No information
11,12	EDUCATION --. Years of education Code for completed years --.99. No information
13.	PLACE OF BIRTH 1. USA 2. Foreign Born: English speaking Countries 3. " " : Germanic & Scandinavian 4. " " : Italy 5. " " : France & Spain 6. " " : Slavic nations 7. " " : Latin America 8. " " : Other 0. No information

14. YEARS IN U.S.A.
1. Native born
2. Less than 1
3. 1-4
4. 5-9
5. 10-19
6. 20-29
7. 30+
0. No information

15. I.Q.
1. 69 or less
2. 70-79
3. 80-89
4. 90-99
5. 100-109
6. 110-119
7. 120-129
8. 130-139
9. 140+
0. No information

16. PATIENT'S SOCIAL CLASS
1. Class 1
2. Class 2
3. Class 3
4. Class 4
5. Class 5
0. Unknown

Blank Blank

17,18. AGE AT FIRST PSYCHIATRIC CONTACT
--. Exact Age
00. No information

19.20. AGE AT FIRST PSYCHIATRIC HOSPITALIZATION
--. Exact Age
00. No information

21. NUMBER OF PRIOR HOSPITALIZATIONS
1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8+
0. No information

22. TOTAL PERIOD OF PRIOR HOSPITAL EXPERIENCES

1. Less than 1 month
2. 1-5 mos.
3. 6-11 mos.
4. 12-17 mos.
5. 18-23 mos.
6. 24-35 mos.
7. 36-47 mos.
8. 48-59 mos.
9. 5+ years
0. No information

23. CONDITION AT DISCHARGE

1. Much improved; recovered
2. Improved
3. Unchanged or slightly worse
4. Deceased
0. No information

24. DISCHARGE OR ESTABLISHED DIAGNOSIS

Blank

1. Psychosis: Schizophrenic reaction
2. Psychosis: Affective reactions
3. Psychosis: Organic
4. Psychoneurotic Disorder
5. Personality Disorder
6. Transient Situational Personality Dis.
0. No information

25. SUBCLASSIFICATIONS OF ESTABLISHED DIAGNOSIS:

Blank

When Co. 24 coded "1"

1. Simple
2. Hebephrenic
3. Catatonic
4. Paranoid
5. Acute undifferentiated
6. Chronic undifferentiated
7. Schizo-affective
8. Childhood
9. Other
0. No subclassification

When Co. 24 coded "2"

1. Manic depressive, manic
2. Manic depressive, depressive
3. Manic depressive, other
4. Psychotic depressive reaction
5. Involutional depressive
9. Other
0. No subclassification

When Co. 24 coded "3"
1. Acute brain disorders
2. Seizure disorder (Epilepsy)
3. Toxic-metabolic (incl. alc.)
4. Vascular
5. Traumatic
6. Chronic brain disorder, undiff.
9. CBS, Other
0. No subclassification

Blank

When Col. 24 coded "4"
1. Anxiety reaction
2. Dissociative reaction
3. Conversion reaction
4. Phobic reaction
5. Obsessive compulsive reaction
6. Depressive reaction
9. Other
0. No subclassification

Blank

When Col. 24 coded "5"
1. Personality pattern disturbance
2. Personality trait disturbance
3. Sociopathic personality disturbance
4. Special symptom reactions
9. Other
0. No subclassification

chronic

Blank

When Col. 24 coded "6"
1. Gross stress reaction
2. Adult situational reaction
3. Adjustment reaction of childhood
4. Adjustment reaction of adolescence
5. Adjustment reaction of late life
9. Other
0. No subclassification

Blank

When Col. 24 coded "0"
0. No subclassification

26. TREATMENT: General
1. Psychotherapy
2. ECT
3. Drugs
4. 1 + 2
5. 1 + 3
6. 2 + 3
7. 1 + 2 + 3
8. None
0. No information

Blank

26

9. Insulin

Somatic

27.

TREATMENT: Psychotherapy
1. Psychoanalysis
2. Psychotherapy: M.D.
3. Psychotherapy: Other
4. Group Therapy
5. Unspecified
6. No psychotherapy
0. No information

Blank

Blank

~~28.~~

TREATMENT: Organic
1. Phenothyazines (CP,P, Tril.)
2. Meprobl, deprol, equanil
3. Tofranil
4. 1 + 2
5. 1 + 3
6. 2 + 3
7. 1 + 2 + 3
8. Other
9. No organic treatment
0. No information

X = S.P

Numeral (+X) = S.P + other medication e.g. 1X

Blank

28
~~29.~~

LENGTH OF HOSPITALIZATION BEFORE ORGANIC TREATMENT
1. Less than 1 week
2. 1-4 weeks
3. 1-2 months
4. 3-4 "
5. 5-6 "
6. 7-8 "
7. 9-10 "
8. 11 + months
0. No information

Blank

29
~~30.~~

LENGTH OF CURRENT HOSPITALIZATION
1. Less than 30 days
2. 31-60 days
3. 61-91 days
4. 4-5 months
5. 6 months
6. 7-8 months
7. 9-11 months
8. 12 months
9. 13+ months
0. No information

30, 31
~~31, 32.~~

"f" SCORE
--. = exact score
00. = No information

32.

1. Received
2. Much Improved
3. Improved
4. Unimproved

CODE SHEET

1. Tri Hospital Study
2. Hillside Study, 1957, 1958, 1960.

IBM. Column	ITEM
1.	HOSPITAL 1. Hillside, 1958 2. Menninger 3. Mass. Mental Health 5. Hillside, 1957 6. Hillside, 1960
2,3,4.	PATIENT NUMBER
5.	SEX 1. Male 2. Female
6,7.	AGE --. Exact age 00. No information
8.	RACE 1. White 2. Negro 3. Other 0. None or no information
9.	RELIGION 1. Protestant 2. Catholic 3. Jewish 0. No or no information
10.	MARITAL STATUS 1. Single 2. Married 3. Separated 4. Divorced 5. Widowed 0. No information
11,12.	EDUCATION --. Years of education Code for completed years --.99. No information
13.	PLACE OF BIRTH 1. USA 2. Foreign Born: English speaking Countries 3. " " : Germanic & Scandinavian 4. " " : Italy 5. " " : France & Spain 6. " " : Slavic Nations 7. " " : Latin America 8. " " : Other 0. No information

14. YEARS IN U.S.A.
1. Native born
2. Less than 1
3. 1-4
4. 5-9
5. 10-19
6. 20-29
7. 30+
0. No information

15. I.Q.
1. 69 or less
2. 70-79
3. 80-89
4. 90-99
5. 100-109
6. 110-119
7. 120-129
8. 130-139
9. 140+
0. No information

16. PATIENT'S SOCIAL CLASS
1. Class 1
2. Class 2
3. Class 3
4. Class 4
5. Class 5
0. Unknown

17,18. AGE AT FIRST PSYCHIATRIC CONTACT
--. Exact age
00. No information

19,20. AGE AT FIRST PSYCHIATRIC HOSPITALIZATION
--. Exact Age
00. No information

21. NUMBER OF PRIOR HOSPITALIZATIONS
1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8+
0. No information

22. TOTAL PERIOD OF PRIOR HOSPITAL EXPERIENCES
1. None
2. Less than 1 month
3. 1-5 mos.
4. 6-11 mos.
5. 12-17 mos.
6. 18-23 mos.
7. 24-35 mos.
8. 36-47 mos.
9. 4+ years
0. No information

23. CONDITION AT DISCHARGE
1. Much Improved; Markedly Imp.; Recovered
2. Improved; Moderately Imp.; Slightly Imp
3. Unchanged or slightly worse; Unimp.
4. Deceased
0. No information

24. DISCHARGE OR ESTABLISHED DIAGNOSIS
1. Psychosis: Schizophrenic reaction
2. Psychosis: Affective reactions
3. Psychosis: Organic
4. Psychoneurotic Disorder
5. Personality Disorder
6. Transient Situational Personality Dis.
0. No information

25. SUBCLASSIFICATIONS OF ESTABLISHED DIAGNOSIS:

When Co. 24 coded "1"
1. Simple
2. Hebephrenic
3. Catatonic
4. Paranoid
5. Acute undifferentiated
6. Chronic undifferentiated
7. Schizo-affective
8. Childhood
9. Other
0. No subclassification

When Co. 24 coded "2"
1. Manic depressive, manic
2. Manic depressive, depressive
3. Manic depressive, other
4. Psychotic depressive reaction
5. Involutional depressive
9. Other
0. No subclassification

When Co. 24 coded "3"
1. Acute brain disorders
2. Seizure disorder (Epilepsy)
3. Toxic-metabolic (incl. alc.)
4. Vascular
5. Traumatic
6. Chronic brain disorder, undiff.
9. CBS, Other
0. No subclassification

When Col. 24 coded "4"
1. Anxiety reaction
2. Dissociative reaction
3. Conversion reaction
4. Phobic reaction
5. Obsessive compulsive reaction
6. Depressive reaction
9. Other
0. No subclassification

When Col. 24 coded "5"
1. Personality pattern disturbance
2. Personality trait disturbance
3. Sociopathic personality disturbance
4. Special symptom reactions
9. Other
0. No subclassification

When Col. 24 coded "6"
1. Gross stress reaction
2. Adult situational reaction
3. Adjustment reaction of childhood
4. Adjustment reaction of adolescence
5. Adjustment reaction of late life
9. Other
0. No subclassification

When Col. 24 coded "0"
0. No subclassification

26. TREATMENT: General
1. Psychotherapy
2. ECT; Indoklon
3. Drugs
4. 1+2
5. 1 + 3
6. 2 + 3
7. 1 + 2 + 3
8. None
0. No information

27. TREATMENT: Psychotherapy
1. Psychoanalysis
2. Psychotherapy: M.D.
3. Psychotherapy: Other
4. Group Therapy
5. Unspecified
6. No psychotherapy
0. No information

TREATMENT: Organic
1. Phenothyazines (CP, Promazine, Compazine, Thorazine, Tril.)
2. Meprobl, deprol, equanil, Miltown.
3. Tofranil
4. 1 + 2
5. 1 + 3
6. 2 + 3
7. 1 + 2 + 3
8. Other
9. No organic treatment
0. No information

28. LENGTH OF HOSPITALIZATION BEFORE ORGANIC TREATMENT
1. None
2. Less than 1 week
3. 1-4 weeks
4. 1-2 months
5. 3-4 months
6. 5-6 "
7. 7-8 "
8. 9-10 "
9. 11 + months
0. No information

29. LENGTH OF CURRENT HOSPITALIZATION
1. Less than 30 days
2. 31-60 days
3. 61-91 days
4. 4-5 months
5. 6 months
6. 7-8 months
7. 9-11 months
8. 12 months
9. 13+ months
0. No information

30,31. "F" SCORE
--. = exact score
00. = No information

ADDITIONAL CODE MATERIAL FOR MENNINGER HOSPITAL

Column_____

32. SOCIAL ADJUSTMENT
  1. Improved
  2. Unimproved
  0. No information

33. CHARACTER STRUCTURE
  1. Improved
  2. Unimproved
  0. No information

34. SYNDROME
  1. Complete remission
  2. Improved
  3. Unchanged (or worse)
  0. No information

35. EVALUATION ONLY
  1. Checked (yes)
  2. Unchecked (no)

36. CIRCUMSTANCES AT DISCHARGE
  1. Treatment completed
  2. Day hospital
  3. Psychotherapy here
  4. Hospitalization elsewhere
  5. Psychotherapy elsewhere
  0. No information

For Mass. Mental Health Center ONLY

32.
  1. Court Case
  2. Met Project Case

JUL 12 1961

SOCIOPSYCHOLOGICAL ASPECTS OF PSYCHIATRIC TREATMENTS:

A Study of Three Hospitals

Various studies of community and hospital psychiatric populations have established the importance of social factors concerning the type and incidence of mental disorder and the selection of treatment. Most notable of these investigations has been that of Hollingshead and Redlish ( ) who studied the New Haven population and demonstrated a relationship between social class and social psychiatric aspects as type of treatment and diagnosis. Thus they found that lower class patients are more likely to be diagnosed as schizophrenic and receive organic or custodial treatment than those from higher social levels. Psychotherapy, particularly psychoanalysis, was restricted to the upper classes.

While the basic importance of such studies is evident, further investigations are necessary to determine the explicit factors or premises that underlie such relationships. One such study was instituted at Hillside Hospital in 1957. This study was designed, in part, to test the role of social factors in a situation where suchmechanically selective factors as the patient's financial resources on the extent and type of treatment facilities available were eliminated. At Hillside the same therapeutic testings and services are available to all patients, regardless of their ability to pay.

Our method of investigation in the 1957 study was a census-type survey of all in-patients inpatients on a given day, who were followed until discharge. We observed that age, education, sex and place of birth were significantly associated to choice of treatment, duration of hospitalization, clinical discharge evaluation and to diagnosis ( ). Older, more poorly educated, foreign-born patients were most likely to receive somatic therapy, were kept in the hospital for the shortest period of time, were rated as recovered or much improved on discharge, and were given diagnoses of psychiatric depression. Men received somatic therapy much earlier than women. In contrast, it was the young, well-educated, native-born person who was given psychotherapy for a long period of time, diagnosed as neurotic or schizophrenic, and given a poor clinical rating on discharge.

We interpreted these findings partly in terms of the process of communicative interaction. This was studied by testing all the patients and therapists with a modified California F Scale ( ). Regarding this test as a measure of stereotypy of communication, it was found that those patients who were most unlike the therapists, were most stereotyped, were the ones to receive somatic therapy, hospitalized for a short period, given good clinical evaluation on discharge and depressive diagnoses.

A second major interpretation dealt with the philosophy and the system of the institution and therapists as these affected psychiatric treatment and evaluation. It was pointed out, for example, that discharge evaluation was related to different expectations and criteria for persons of different social background rather than to intrinsic psychiatric criteria. It was suggested that the same sort of patient might be managed or evaluated quite differently at different hospitals, depending on the particular institutional philosophy and values.

Partly to test this latter point, and partly due to an interest in the extent to which our original findings could be generalized, we decided to repeat the Hillside study in 1958, employing the same procedures, and concurrently to extend it to two other institutions, the C.F.Menninger Memorial Hospital and the Massachusetts Mental Health Center (MMHC). These institutions are similar to Hillside in that both psychoanalitically-oriented psychotherapy and somatic therapies are available. They were selected for the additional reason that while Hillside serves predominantly the middle social class levels, Menninger has many upper class patients, and MMHC has a majority in the lower classes.

The specific purpose of this research was, in addition to verifying the generalizations reported in the initial study, to determine the relation of

aspects of psychiatric treatment and inter-institutional differences in social composition, philosophy and value systems. Our hypothesis was that the social differences between institutions would be related to the same patterns of differences of psychiatric treatment as stated in the studies of such differences with an institution.

METHOD

The entire population of these institutions ~~xxxxx~~ as of a given date in January 1958 were studied. While Menninger's and Hillside had voluntary patients only, a small number of those at MMHC were court cases assigned to the institution for psychiatric evaluation. These patients have been excluded from the study. This consisted of 173 patients at Hillside, 100 at Menninger's and 95 at MMHC. Each patient was administered the California F scale on the designated date, and the patients were followed for 18 months. At this point the data on types of treatment received, duration of hospitalization, discharge clinical evaluation and diagnoses were tabulated with respect to the sociopsychological factors of age, education, social class and score on the F Scale. For the determination of social class, the Hollingshead 2-factor index was used ( ).

Results

While the method described in a previous section appears simple enough, we soon discovered that the very factors we were interested in studying, such as the institutional philosophy and structure, affected the collection and organization of the data. Accordingly, these considerations are presented under the heading of results rather than simply as methodological complications.

Designation of Type of Treatment:

In our assessments of specific variables, we encountered a variety of problems associated with the content of hospital records. For example, it was difficult to determine the length of stay prior to referral for a somatic treatment, or the length of time spent in that treatment. However, a major problem was to learn which patients were receiving psychotherapy. Our task was not to define psychotherapy, but the much simpler problem of noting which patients were designated by the hospital as having been treated with psychotherapy. At Menninger Hospital psychotherapy wad administered on a prescription basis by a staff psychiatrist for which the patient was charged an additional fee. Sessions with the psychiatric resident physician were considered part of routine administrative patient care. At Hillside Hospital the definition of psychotherapy was limited to treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients directly, but restricted their activity to supervising the residents.

In contrast, at the MMHC psychotherapy was designated as a function of many disciplines - psychiatric residents, nurses, medical students, social workers and psychologists. To ascertain whether or not a patient was receiving psychotherapy we had to interview the resident physician in charge of the case.

Diagnosis:

The assessment of diagnosis was another problem area. It is not surprising that there are institutional diagnostic styles which reflect staff orientations rather than the behavior of the patient. Pasamanick and his associates (7) have shown that diagnoses within the same institution are vulnerable to individual differences among examiners. In our present study, there were differences in the terminology of the discharge diagnosis. Discharge diagnoses at Menninger Hospital were more descriptive and employed a multiple classification system. Table I illustrates several examples and shows how we converted these into more generic categories that could be applicable to all three institutions. In reducing multiple diagnoses to single generic ones, we are aware that we are introducing distortions through this maneuver.

Table I

Discharge Ratings of Improvement:

Similar problems exist for the equivalence of global ratings of improvement. As in the case of diagnosis, Menninger Hospital had the most elaborate discharge ratings of improvement and Hillside Hospital, the simplest.

As shown in Table II the discharge rating at Menninger Hospital was tripartite and a separate rating given for social, characterological and syndrome changes. Hillside and MMHC had similar global ratings and it is difficult to state how much weight was given to each of the three factors incorporated in the Menninger system. Such differences in systems makes it difficult to compare treatment results of hospitalizations.

Table II

Differences Between Institutions: Social Variables

Social Class

As expected, there is a marked difference in the social class composition of the three institutions (Table III). As Menningers, a predominantly upper class institution is shown with 82 per cent of the patients in class I or II, and only one patient is in class IV with none in class V. As Hillside the middle class character of the population is hown by the predominance in classes III and IV, 68 per cent. At MMHC, the majority of the patients, 57 per cent are found in classes IV and V, indicating its predominantly lower class population. These findings substantiate our selection of these institutions in terms of their class composition.

Age

There is no significant difference between the institutions with respect to age (Table IV). There is a range of 15 to 19 per cent under age 20, and from 22 to 33 per cent age 40 or over, with MMHC tending to have the older patients.

Education

Consistent with the social class differences, based in part on education, there is a tendency for those at Menningers to be better educated, and those at MMHC the poorest (Table V).

F Score

Marked differences in the distribution of F scores are shown (Table VI).

As one extreme, 51 per cent of the Menninger patients had F scores under 30, with only 8 per cent 50 or more. In contrast, at MMHC, only 20 per cent were below 30 with 42 per cent 50 or more. At Hillside the predominat range of F scores was in the Middle, between 30 and 49.

Differences Between Institutions: Psychiatric Variables

Selection of Treatment

As shown in Table VII there was a tendency for fewer patients at Menninger's to receive somatic therapy than at either of the other two institutions. At the same time a smaller percentage of Menninger patients were regarded as given psychotherapy. But there were a larger number of patients at this institution, 36 per cent, who were classed as other (milieu) treatment, who would have been considered to have received psychotherapy at a hospital like Hillside. In any case, if we just contrast the patients receiving somatic therapy, Menninger's shows a significantly smaller number than at either of the other two institutions. MMHC shared a larger proportion of somatic therapy patients than Hillside but the difference is not significant.

It should be pointed out that one of the factors affecting these results is the general transition in treatment philosophy that was going on during the course of these studies. In the earlier Hillside study over 1/3 of the patients received electroconvulsive therapy, compared to only 14 per cent in this sample, eighteen months later. Seven per cent of the Menninger patients and 16 per cent of those at MMHC received ECT.

Duration of Hospitalization

Considerable differences were shown between the three institutions with respect to how long the patients were kept in the hospital (Table VIII). The distribution varied along social class lines, with 65 per cent of the Menninger patients being hospitalized for 12 months or more, compared to 31 per cent of the Hillside patients and only 5 per cent of those at MMHC. The modal stay of the Hillside group was between 7 and 11 months, while two-thirds of the MMHC patients were discharged within six months of hospitalization.

Diagnosis

The pattern of distribution of discharge diagnoses is shown in Table IX. For purposes of analysis three diagnostic groupings were made, schizophrenia, psychoneurosis and personality disorders, and affective disorders. While there was very little difference between the Hillside and MMHC populations, the Menninger patients were regarded as having fewer affective and schizophrenic disorders, but a large number of those with psychoneurosis or character disorders. There was little difference between the Hillside and MMHC group.

Selection of Treatment

Age

Comparison of just those patients who received psychotherapy only, or some form of somatic therapy, shows that within each institution, psychotherapy is given disproportionately to the younger age group, and somatic therpies predominate in the older patients. (Table X) The se results are statistically significant for the Menninger and MMHC populations. It is of interest that while the under 20 age group were more likely to receive psychotherapy in all institutions, they were most likely at Menninger's, 73 per cent receiving such treatment, compared to 57 per cent at MMHC and 39 per cent at Hillside.

Education

No significant relationships was shown between education and selection of treatment in any of the institutions (Table XI). In part this may be accounted for by the predominance of psychotherapy in the less than 20 age groups, who necessarily are limited in the amount of education they possibly could have.

F Score

As shown in Table XII, there is a significant relationship between F scores and type of treatment received in each institution, with those patients with lower F scores most likely to receive psychotherapy, and the high F score patients getting somatic therapy. While the pattern is marked in all institutions, it is most notable in the Menninger population, where 58 per cent of the 10 - 29

F score group receive psychotherapy as their sole form of treatment, compared to none of them with F scores of 50 or above.

Duration of Hospitalization

Age

A marked relationship was shown between age and length of hospitalization in each institution (Table XIII), with the younger patients staying the longest, and the older patients the shortest time. The data feel short of significance in the MMHC population, where so few patients are kept more than 12 months. It is notable that the relationship between age and hospitalization length was most pronounced in the upper class population and less notable in the lowest. Thus, at Menninger's 89 per cent of the under 20 age level patients stayed for a year or more, compared to 42 per cent of the Hillside patients and 14 per cent of those at MMHC. Similarly, while 33 per cent of the 40 and over age group at Menninger's were hospitalized for a year or more, the same was true of only 13 per cent at Hillside and none at MMHC.

Education

No relation was shown between education and length of hospitalization in any of the institutions (Table XIV).

F Score

No significant relationship was shown between F Score and length of hospitalization in any institution (Table XV).

Discharge Evaluation

No selection was demonstrated between discharge evaluations and any of the variables studied (Tables XVI, XVII, XVIII).

Diagnosis

Age

As shown in Table XIX schizophrenia is more likely to be diagnosed in the younger age groups, and affective disorders in the older patients.

Education

No significant relation was noted between education and discharge diagnosis (Table XX).

F Score

Clear-cut relationships are shown in all three institutions between F score and affective disorders which are associated with high F scores, and psychoneurosis and personality disorders which are diagnosed in patients with low F Scores (Table XXI). The diagnosis of schizophrenia varies from institution to institution. At Menninger's it was associated with high F scores, at Hillside it predominated in the low F score patients, while at MMHC it occurred with about the same frequency at all F score levels.

JUL 12 1961

Incomplete

TABLE I

TYPES OF DISCHARGE DIAGNOSIS

	MENNINGER DISCHARGE DIAGNOSIS	CLASSIFICATION RATING
1.	Depression reaction Narcissistic Personality	Psychoneurosis
2.	Anxiety Reaction Narcissistic Personality	Psychoneurosis
3.	Narcissistic Personality	Personality Trait Disturbance
4.	Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5.	Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6.	Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

RATINGS OF CLINICAL CONDITION AT TIME OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		Regression
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE III

Social Class

Social Class (Percent)

Institution	N	I	II	III	IV	V
MF	87	31	51	17	1	0
HH	133	7	20	34	34	5
MMHC	72	3	28	13	29	28

Make up as graph!

For test of significance:

Combine I & II, III, IV & V

TABLE IV

Age Distribution

Age Groups (Percent)

Institution	N	20	20-39	40+
MF	100	19	59	22
NH	173	19	58	23
MSMC	95	15	53	33

TABLE V

Education Distribution

Years of Education (Percent)

Institution	N	≤ 12	12-15	16+
MF	100	23	54	23
HH	173	32	51	17
MMHC	91	41	49	10

TABLE VI

F Score Distribution

Institution	N	F Score (Percent) 10-29	30-49	50-70
MF	92	51	41	8
HH	163	33	50	18
MMHC	76	20	38	42

TABLE VII

Selection of Treatment

Type of Treatment (Percent)

Institution	N	Psychotherapy	Somatic	Other
MF	64	21	43	36
HH	173	36	64	0
MMHC	89	24	68	8

TABLE VIII

Duration of Hospitalization

Months in Hospital (Percent)

Institution	N	< 7	7-11	12+
MF	100	22	13	65
HH	173	27	42	31
MMHC	95	67	27	5

TABLE IX

Discharge Diagnosis

Institution	N	Diagnostic Categories (Percent)		
		Schizophrenia	PN or Personality Disorder	Affective
MF	95	43	52	5
MH	171	52	26	22
MMHC	85	54	29	16

Sociopsychological Aspects of Psychiatric Treatments:
A Study of Three Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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*Present Address: Department of Psychiatry, Montefiore Hospital, Bronx, N.Y.

III: 7/26/61

Various studies of community and hospital psychiatric populations have established the importance of social factors concerning the type and incidence of mental disorder and the selection of treatment. Most notable of these investigations has been that of Hollingshead and Redlich ( ) who studied the New Haven population and demonstrated a relationship between social class and such psychiatric aspects as type of treatment and diagnosis. Thus they found that lower class patients are more likely to be diagnosed as schizophrenic and receive organic or custodial treatment than those from higher social levels. Psychotherapy, particularly psychoanalysis, was restricted to the upper classes.

While the basic importance of such studies is evident, further investigations are necessary to determine the explicit factors or processes that underlie such relationships. One such study was instituted at Hillside

Hospital in 1957. This study was designed, in part, to test the role of social factors in a situation where such mechanically selective factors as the patient's financial resources or the extent and type of treatment facilities available were eliminated. At Hillside the same therapeutic techniques and services are available to all patients, regardless of their ability to pay.

In the 1957 study our method of investigation was a census-type survey of all patients in residence on a given day. On discharge from the hospital the various factors were recorded. We observed that age, education, sex and place of birth were significantly associated to choice of treatment, duration of hospitalization, clinical discharge evaluation and to diagnosis ( ). Older, more poorly educated, foreign-born patients were most likely to receive somatic therapy, were kept in the

hospital for the shortest period of time, were rated as recovered or much improved on discharge, and were given diagnoses of psychotic depression. Men received somatic therapy much earlier than women. In contrast, it was the young, well-educated, native-born person who was given psychotherapy for a long period of time, diagnosed as neurotic or schizophrenic, and given a poor clinical rating on discharge.

These findings were partly interpreted in terms of the process of communicative interaction. This was studied by testing all the patients and therapists with a modified California F Scale ( ). This test was regarded as a measure of stereotypy of communication, and it was found that those patients who were most stereotyped and thus most unlike the therapists, were the ones referred for somatic therapy, were hospitalized

for a short period, given good clinical evaluations on discharge and diagnosed as psychotic depression.

A second interpretation dealt with the philosophy and orientation of the institution and therapists as affected psychiatric treatment and evaluation. It was suggested, for example, that the same sort of patient might be managed or evaluated quite differently at different hospitals, depending on the particular institutional philosophy and values. A further postulate is that even institutions with similar treatment philosophies would handle patients differently depending on the social composition of the patient population. Thus, it was pointed out that discharge evaluation was apparently related to different expectations and criteria for persons of different social backgrounds, rather than to intrinsic psychiatric criteria.

To test this hypothesis we decided to repeat the Hillside study in 1958, employing the same procedures as in the 1957 study, and concurrently to extend it to two other institutions, the C.F. Menninger Memorial Hospital and the Massachusetts Mental Health Center (MMHC).

These particular institutions were chosen because they represent a combination of similarities and differences that would permit classification of the problem. The institutions are alike with respect to the following factors: 1) they are all teaching hospitals, 2) they have a similar treatment philosophy, emphasizing psychoanalytically-oriented psychotherapy, and 3) they all provide a full range of types of treatment within the institutions, using the somatic therapies as needed, and with active programs of milieu therapy.

The essential differences between the hospitals are: 1) they have different sources of financial support, the MMHC being a public institution supported by state funds, Hillside being a non-profit private hospital with 70% of its income derived from city and other community funds, and Menninger's being an exclusively private institution; 2) the most relevant inter-institutional difference, though related to the systems of financial support, is the different social class composition of the patient population, with Menninger's having many upper class patients, Hillside serving predominantly middle social class levels, and the MMHC having a majority in the lower classes (see Table III).

METHOD

The patients in residence in these institutions as of a given date in January 1958 were studied. While Menninger and Hillside Hospitals had voluntary patients only, a small number of those at MMHC were court cases assigned to the institution for psychiatric evaluation. These patients were excluded from the study. The study population consisted of 173 patients at Hillside Hospital, 100 at Menninger Hospital and 95 at MMHC, each of whom completed the California F scale on the designated date. The records surveyed after 18 months, and data on types of treatment received, duration of hospitalization, discharge clinical evaluation and diagnoses were tabulated. For the determination of social class, the Hollingshead 2-factor index was used ( ).

1. Methodologic Problems

While these methods appeared quite simple, we soon discovered that the very factors we were interested in studying, such as the institutional philosophy and structure, affected the collection and organization of the data. In our assessments of specific variables, we encountered a variety of problems associated with the content of hospital records. Accordingly, these considerations are presented under the heading of results rather than as methodological factors.

Designation of Type of Treatment: Among the difficult determinations were such aspects as the length of stay prior to referral for a somatic treatment, the length of time spent in that treatment, or the designation of which patients had received psychotherapy. Our task was not to define psychotherapy, but the much

simpler problem of noting which patients were designated by the hospital as having been treated with psychotherapy. At Menninger Hospital psychotherapy was a designated treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged an additional fee. Sessions with the psychiatric resident (ward) physician were considered part of routine administrative patient care. At Hillside Hospital psychotherapy was defined as treatment sessions with the psychiatric resident physician, and it was expected that all patients receive at least 1½ hours of such care each week. Staff psychiatrists did not directly treat patients, but restricted their activities to supervising the resident therapists. At the MSHC, in contrast, psychotherapy was designated as a function of many disciplines - psychiatric residents, nurses, medical students, social

workers and psychologists. Formal records of such sessions were not routinely kept and to ascertain whether or not a patient was receiving psychotherapy we had to interview the resident physician in charge of the case.

Diagnosis: Another problem area was the assessment of diagnosis. It was apparent that there were individual institutional diagnostic styles, which appeared to reflect staff orientations rather than the behavior of the patient. Similar observations have been reported by Pasamanick and his associates (7) who have shown that diagnoses within the same institution are vulnerable to individual differences among examiners.

In our study, there were differences in the terminology of the discharge diagnosis. Discharge diagnoses at Menninger Hospital were most descriptive and employed a multiple classification system, while those

at Hillside Hospital and MMHC were more unitary and indiscriminate. Table I illustrates several examples and shows how these terms were converted into more generic categories comparable in the three institutions, but providing an unavoidable source of distortion.

Table I

Discharge Ratings of Improvement: Similar problems exist in the global ratings of improvement. As with diagnosis, Menninger Hospital had the most elaborate discharge evaluations and Hillside Hospital, the simplest. As shown in Table II, the discharge rating at Menninger Hospital was tripartite with a seperate evaluation for social, characterological and behavioral changes. Hillside and MMHC had global ratings and it is

difficult to state how much weight was given to each of the three factors incorporated in the Menninger system. Such differences in systems makes it difficult to compare the treatment results of hospitalization.

Table II

---

2. Differences Between Institutions: Social Variables

Social Class: There was a marked difference in the social class composition of the three institutions (Table III). At the Menninger Hospital, a predominantly upper class institution was reflected, with 82 per cent of the patients in class I or II, only one patient in class IV, and none in class V. At Hillside Hospital, a middle class population was shown by the high number of patients in classes III and IV (68 per cent). At MMHC, the majority

of the patients, (57 per cent) were found in classes IV and V, indicating its largely lower class population.

Age: There was no difference between institutional population in age distribution (Table IV). From fifteen to nineteen per cent of the patients were under the age of 20, and from twenty-two to thirty-three per cent 40 years or older. The MMHC tended to have the older patients, although the difference is not significant.

Education: Consistent with the social class differences, which are based in part on education, there was a tendency for the Menninger Hospital population to be better educated, and those at MMHC most poorly educated (Table V). While 41 per cent of the patients at the latter institution failed to complete high school, the same was true of only 32 per cent at Hillside Hospital and 23 per cent at Menninger Hospital.

F Score: Marked differences in the distribution of F scores were shown (Table VI). At the low end of the distribution, 51 per cent of the Menninger Hospital patients had F scores below 30, and only 8 per cent with scores of 50 or above. In contrast, at MMHC, only 20 per cent were below 30 on the F scale, and 42 per cent had scores of 50 or more. At Hillside Hospital, the predominant distribution of F scores was in the middle range, between 30 and 49.

Comment

These findings substantiate our selection of these three institutions in terms of their social class compositions. As expected, the higher the social class of the population the better the education and the lower the F score. The similarity of age distribution at the three

hospitals, however, indicates a priori that the kind of psychiatric disorders should be the same in each, since age is the single factor which has been most consistently associated with type of psychopathology ( ). This assumption is supported by equivalent figures from the three hospitals for such aspects as number of previous hospitalisations and age at first psychiatric contact.

3. Differences Between Institutions: Psychiatric Variables Selection of Treatment: As shown in Table VII there was a tendency for fewer patients at Menninger Hospital to receive somatic therapy than at either of the other two institutions. At the same time a smaller percentage of Menninger patients were regarded as receiving psychotherapy. But there were a larger number

of patients at this institution (36 per cent) who were classed as receiving other (milieu) treatment, who would have been classified as having received psychotherapy at Hillside Hospital. If one contrasts the patients receiving somatic therapy, Menninger Hospital shows a significantly smaller number than at either of the other two institutions, while the MMHC showed a larger proportion of somatic therapy patients than Hillside Hospital, but the difference is not significant.

Analysis within each institution showed that such factors as age and F score were significantly related to type of treatment, with younger and low F score patients most likely to receive psychotherapy as their sole form of treatment, and least likely to be given somatic therapy. The F score data are shown in Table VIII. In addition to the intra institutional findings, this table

illustrates that a patient with a given F score will fare differently at the three institutions. Thus a patient with a low F score, in the 10-29 range, is least likely to receive somatic therapy at Menninger's than at either of the other hospitals. On the other hand, a patient with a high F score, 50 or more, is least likely to receive psychotherapy at Menninger's.

Duration of Hospitalization: Considerable differences were shown between the three institutions with respect to how long the patients were kept in the hospital (Table IX). The distribution varied along social class lines, with 65 per cent of the Menninger Hospital patients being hospitalized for 12 months or more, compared to 31 per cent of the Hillside Hospital patients and only 5 per cent of those at MMHC. The modal stay of the Hillside group was between 7 and 11

months, while two-thirds of the MMHC patients were discharged within six months of hospitalization.

Within each institution age was the social factor most closely related to length of hospitalization (Table X)---younger patients remaining for the longest period. At every age level, however, those at the Menninger Hospital remained longer. Indeed, the inter-institutional differences were so great that a patient in the oldest age group is more likely to be hospitalised for 12 months or more at the Menninger Hospital than are patients in the youngest age group at MMHC.

Diagnosis: The pattern of distribution of discharge diagnoses is shown in Table IX. For purposes of analysis three diagnostic groupings were made, schizophrenia, psychoneurosis and personality disorders, and affective disorders. While there was very little difference

between the Hillside Hospital and MMHC populations, the Menninger Hospital patients were regarded as having fewer affective and schizophrenic disorders, but a large number of those with psychoneurosis or character disorders. There was little difference between the Hillside and MMHC groups.

Intrainstitutional analysis showed that both age and F score are significantly related to diagnosis, with the older and higher F score patients most likely to be rated as affective disorders. The data on F score are shown in Table XII. At the Menninger Hospital a patient with an F score under 30 is most likely to be classified as "psychoneurosis" or "character disorder", while with the same F score at Hillside he will be typically diagnosed as "schizophrenia". A similar pattern is shown for age. Of those patients under 20 years of age,

sixty-eight per cent of those at Menninger Hospital are classified as "psychoneurosis" and character disorder" and thirty-two per cent as "schizophrenia". At Hillside, in contrast, 67 per cent of this same age group are diagnosed "schizophrenia".

Discharge Evaluation: It is apparent from Table XXII that all three hospitals evaluate most of their patients at the time of discharge as "improved". What is noteworthy, however, is that Menninger's has the highest percentage of improved patients, 19 per cent, and only a single patient called recovered or much improved. At the other end of the distribution the MMHC, with its lower class population, has the highest percentage of recovered or much improved, and the least number of unimproved.

Analysis within each institution showed variable results. At Hillside and MMHC there was a tendency for

older patients to be rated better than younger ones, but the results are statistically significant only at Hillside (Table XIV). At Menninger's there was an opposite trend, with older patients more likely to be rated unimproved.

Discussion

Comparison of the patterns of psychiatric treatment and results in three hospitals has demonstrated marked differences in terms of the social class composition of the patient populations. Upper class patients are less likely to receive somatic therapy, are hospitalized for longer periods, are diagnosed as psychoneurosis or character disorder rather than affective disorder, and are least likely to be rated as recovered or much improved on discharge.

These differences are analogous to those previously reported on the importance of social characteristics within a given institution ( ) or community ( ). In fact, intrainstitutional analysis in the present study showed similar relationships. But patients with identical characteristics fared differently in each institution.

the poorest treatment results. At MMHC, in contrast, which is most casual about who is a therapist, which keeps patients for a very short time only, and which has a higher percentage of schizophrenics than Menninger's, the treatment results are the best.

Obviously, this study does not touch on the relative therapeutic efficacy of these institutions, but points up our previous assertion concerning the different criteria of improvement utilized for persons of varying social background ( ). For lower class persons we are apt to use more primitive criteria, such as the patients capacity to resume work. For upper class patients criteria of improvement are far more complex, involving such additional observations as "developing insight", "working through his problem", etc.

We must emphasize, again, that the differential

response to patients of different social backgrounds is not just a reflection of snobbery or other reactions related to the explicit perception of the patient's social class. As shown by our data with the F scale, there were considerable differences between the institutions with respect to the degree of stereotypy of communication. The lower class, more poorly educated person is less likely to be psychologically-minded or responsive to an insight-oriented psychotherapy approach. It is not surprising, then, that in an analytically-oriented setting such patients should be referred for somatic therapy more readily or discharged earlier. What must be guarded against here is that the difficulties produced by the different sociocultural background of the patient and therapist are rationalised in such dynamic terms as

"resistance" or "transference". The problem of what kind of treatments are best suited to lower class patients is beyond the scope of this paper.

TABLE I

TYPES OF DISCHARGE DIAGNOSIS

MENNINGER DISCHARGE DIAGNOSIS	CLASSIFICATION RATING
1. Depression reaction Narcissistic Personality	Psychoneurosis
2. Anxiety Reaction Narcissistic Personality	Psychoneurosis
3. Narcissistic Personality	Personality Trait Disturbance
4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5. Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6. Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

RATINGS OF CLINICAL CONDITION AT TIME OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		Regression
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

DEPARTMENT OF
EXPERIMENTAL PSYCHIATRY
HILLSIDE HOSPITAL
GLEN OAKS, N. Y.

OCT 3, 1961

Summary of Tables

A. Summary of Intrahospital Analyses

Table

1. Types of Discharge Diagnosis
2. Ratings of Clinical Condition at Time of Discharge
3. Age Distribution (Total)
4. Education " "
5. Social Class " "
6. F score " "
7. Type of Treatment " "
8. Age and Selection of Treatment
9. Education " " " "
10. Social Class " " " "
11. F score " " " "
12. Diagnosis " " " "
13. Duration of Hospitalization (months in Hospital) (TOTAL)
14. Age and Duration of Hospitalization
15. Education " " " "
16. Social Class " " " "
17. F score " " " "
18. Diagnosis " " " "
19. Discharge Evaluation (TOTAL)
20. Age and Discharge Evaluation
21. Education " " " "
22. Social Class " " " "
23. F score " " " "

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Summary of Tables

A Summary of Intrahospital Analyses

Types of Discharge Diagnosis
Ratings of Clinical Condition at Time of Discharge

Age Distribution (Total)
Education " "
Social Class " "
F score " "
Type of Treatment " "
Age and Selection of Treatment
Education " " " "
Social Class " " " "
F score " " " "
Diagnosis " " " "
Duration of Hospitalization (months in Hospital) (TOTAL)
Age and Duration of Hospitalization
Education " " " "
Social Class " " " "
F score " " " "
Diagnosis " " " "
Discharge Evaluation (TOTAL)
Age and Discharge Evaluation
Education " " " "
Social Class " " " "
F score " " " "

Table

24. Diagnosis and Discharge Evaluation
25. Discharge Diagnosis (TOTAL)
26. Age and Diagnosis
27. Education " "
28. Social Class " "
29. F score " "

30. Selection of Treatment + Discharge Evaluation
31. Duration of Hospitalization + Discharge Evaluation
32. Duration of Hospitalization + Selection of Treatment

Table

24. Diagnosis and Discharge Evaluation
25. Discharge Diagnosis (TOTAL)
26. Age and Diagnosis
27. Education " "
28. Social Class " "
29. F score " "

30. Selection of Treatment + Discharge Evaluation
31. Duration of Hospitalization + Discharge Evaluation
32. Duration of Hospitalization + Selection of Treatment

Table —

Chi Square Summary - Intra-Hospital Analyses

	Selection of Treatment			Duration of Hospitalization			Discharge Evaluation			Diagnosis		
	MFH ~~HMH~~	H.H.	MMHC	MFH ~~MHH~~	H.H	MMHC	MFH ~~MHH~~	HH	MMHC	MFH ~~MHH~~	H H	MMHC
Age	.01	NS	NS	.001	.01	NS	NS	.01	NS	.001	.001	NS
Education	NS	NS	NS	.05	.001	NS	NS	NS	NS	NS	NS	NS
Social Class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
F score	.01	.05	NS	NS	NS	NS	NS	NS	NS	NS	.01	NS
Diagnosis	.001	.001	.02	.001	.05	.01	NS	.05	NS	—	—	—
Dur Eval	.05	NS	NS	NS	NS	NS				—	—	—
Dur. of Hosp.	NS	.01	.05				~~NS~~	~~NS~~	~~NS~~	—	—	

OCT 3 1961

(A)

(the Square Summary) - Intra-Hospital Analyses

	Selection of Treatment			Duration of Hospitalization			Discharge Evaluation			Diagnosis		
	MFH ~~MEAN~~	H.H.	MMHC	MFH ~~MEAN~~	H.H	MMHC	MFH ~~MEAN~~	HH	MMHC	MFH ~~MEAN~~	H H	MMHC
Age	.01	NS	NS	.001	.01	NS	NS	.01	NS	.001	.001	NS
Education	NS	NS	NS	.05	.001	NS	NS	NS	NS	NS	NS	NS
Social Class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
F score	.01	.05	NS	NS	NS	NS	NS	NS	NS	NS	.01	NS
Diagnosis	.001	.001	.02	.001	.05	.01	NS	.05	NS	—	—	—
Disch Eval	.05	NS	NS	NS	NS	NS				—	—	—
Dur of Hosp	NS	.01	.05							—	—	

OCT 3 1961

(A)

TABLE I

CONVERSION OF DISCHARGE DIAGNOSES

MENNINGER DISCHARGE DIAGNOSES	GENERAL CLASSIFICATION
1. Depressive reaction Narcissistic Personality	Psychoneurosis
2. Anxiety Reaction Narcissistic Personality	Psychoneurosis
3. Narcissistic Personality	Personality Trait Disturbance
4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5. Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6. Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

(2)

TABLE II

COMPARATIVE

RATINGS OF CLINICAL CONDITION AT TIME

OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE IV

Interinstitutional Differences in Age Distribution

Institution	N	Age Groups (Per cent) < 20	20-39	40+
MENN	100	19	59	22
HH	173	19	58	23
MMHC	95	15	53	33

$X^2 = 3.9$

df 4

PNS

(4)

TABLE V

Interinstitutional Differences in Education Distribution

Institution	N	Years of Education (Per cent)		
		< 12	12-15	16+
MENN	100	23	54	23
HH	173	32	51	17
MMHC	91	41	49	10

$x^2 = 9.7$

df = 4

P = .05

TABLE III

Interinstitutional Differences in Social Class

Institution	N	Social Class (Per cent)				
		I	II	III	IV	V
MF	87	31	51	17	1	0
HH	133	7	20	34	34	5
MMHC	72	3	28	13	29	28

df = 8

X^2 = 121.5

p = .001

TABLE VI

Interinstitutional Differences in F Score Distribution

Institution	N	F Score (Per cent) 10-29	30-49	50-70
MENN	92	51	41	8
HH	163	33	50	18
MMHC	76	20	38	42

$X^2 = 39.2$

$df = 4$

$p = .001$

TABLE VII

Selection of Treatment

Interinstitutional Differences in Type of Treatment (Per cent)

Institution	N	Psychotherapy only	Somatic	Other
MF	64	21	43	36
HH	173	36	64	0
MMHC	89	24	68	8

$X^2 = 82.8$

df = 4

p = .001

Does this "other" include "none"?

TABLE X

Age and Selection of Treatment

Type of Treatment (Percent)

	Age Groups	N	Psychotherapy Only	Any Somatic Therapy
MF	<20	11	73	27
	20-39	44	25	75
	40+	9	22	78
HH	<20	33	39	61
	20-39	100	38	62
	40+	40	30	70
MMHC	<20	14	57	43
	20-39	45	20	80
	40+	28	21	79

Age + Selection of Rx (percent)

8a

Menninger

	Psychological + other non organic Treatment	Somatic		N
< 20	84.2	15.8	(N=3)	19
20-39	44.1	55.9	(33)	59
40+	68.2	31.8	(7)	22
				100

$df = 2$

$\chi^2 = 11.0$

$P = .01$

MMHC

			N
< 20	57.1	42.9	14
20-39	28.0	72.0	50
40+	29.0	71.0	31

$df = 2$

$\chi^2 = 4.4$

$P = NS$

Age + Selection of Rx (percent)

	Menninger: Psychological + other non-organic Treatment	Somatic	N
< 20	84.2	15.8 (N=3)	19
20-39	44.1	55.9 (33)	59
40+	68.2	31.8 (7)	22/100

$df = 2$
$x^2 = 11.0$
$p = .01$

MMHC

			N
< 20	57.1	42.9	14
20-39	28.0	72.0	50
40+	29.0	71.0	31

$df = 2$
$x^2 = 4.4$
$p = NS$

TABLE XI

Education and Selection of Treatment

	Years Education	N	Type of Treatment (Percent) Psychotherapy Only	Any Somatic Therapy
MF	< 12	15	40	60
	12-15	32	38	62
	16+	17	18	82
HH	< 12	55	35	65
	12-15	89	37	63
	16+	29	38	62
MMHC	< 12	35	37	63
	12-15	41	17	83
	16+	9	33	67

Social Class and Selection of Treatment

(percent)

Social Class	Somatotherapy	Psychotherapy and non somatic therapy	N
	Menninger		
I & II	(47.1%)	(52.9%)	70
III	(33.3%)	(66.7%)	15
IV & V	(0)	(100%)	1

$df = 1$
$x^2 = .47$
$P = NS$

	H. H.		N
I & II	(58.3%)	(41.7%)	36
III	(64.4%)	(35.6%)	45
IV & V	(67.3%)	(32.7%)	52

$df = 2$
$x^2 = .41$
$P = NS$

	MMHC		N
I & II	(81.8%)	(18.2%)	22
III	(80.0%)	(20.0%)	25
IV & V	(63.6%)	(36.4%)	22

$df = 2$
$x^2 = 1.39$
$P = NS$

Social Class and Selection of Treatment (10)

(percent)

Social Class	Somatotherapy	Psychotherapy and non-somatic therapy	N
	Menninger		
I & II	(47.1%)	(52.9%)	7
III	(33.3%)	(66.7%)	15
IV & V	(0)	(100%)	1

$df = 1$
$x^2 = .47$
$P = NS$

	H. H.		N
I & II	(58.3%)	(41.7%)	36
III	(64.4%)	(35.6%)	45
IV & V	(67.3%)	(32.7%)	52

$df = 2$
$x^2 = .41$
$P = NS$

	MMHC		N
I & II	(81.8%)	(18.2%)	2
III	(80.0%)	(20.0%)	2
IV & V	(63.6%)	(36.4%)	22

$df = 2$
$x^2 = 1.39$
$P = NS$

F score & Selection of Treatment

(percent)

	Mens Psych & others	Somatic	N
10-29	76.6	23.4	47
30-49	50.0	50.0	38
50+	14.3	85.7	7

$df = 2$

$\chi^2 = 13.2$

$P = .01$

MMHC

			N
10-29	53.3	46.7	15
30-49	41.4	58.6	29
50+	25.0	75.0	32

$df = 2$

$\chi^2 = 4.0$

$P = NS$

F score & selection of treatment

(percent)

	Mens Psych & others	Somatic	N
10-29	76.6	23.4	47
30-49	50.0	50.0	38
50+	14.3	85.7	7

$df = 2$

$X^2 = 13.2$

$P = .01$

MMHC

			N
10-29	53.3	46.7	15
30-49	41.4	58.6	29
50+	25.0	75.0	32

$df = 2$

$X^2 = 4.0$

$P = NS$

TABLE XII

F Score and Selection of Treatment

Type of Treatment (Percent)

	F Score	N	Psychotherapy Only	Any Somatic Therapy
MF	20-29	26	58	42
	30-49	25	24	76
	50-70	6	0	100
HH	10-29	53	47	53
	30-49	81	35	65
	50-70	29	17	83
MMHC	10-29	13	46	54
	30-49	25	32	68
	50-70	30	20	80

Table XII

Diagnosis + Selection of Treatment (Percent)

Mens

	Psychotherapy + W/ Somatics (Now Milieu)	Somatics	N
Schiz	24.4	75.6	41
PN+	81.6	18.4	49
affective	60.0	40.0	5

$df = 1$
$\chi^2 = 30.47$
$P = .001$

(affective not included in χ^2)

H.H.

			N
Schiz	30.3	69.7	89
PN+	62.2	37.8	45
affective	21.6	78.4	37

$df = 2$
$\chi^2 = 17.69$
$P = .001$

MMHC

			N
Schiz	16.7	83.3	48
PN+	50.0	50.0	22
affective	26.7	73.3	15

$df = 2$
$\chi^2 = 8.36$
$P = .02$

Table XI

Diagnosis + Selection of Treatment (Percent)

Mens

	Psychotherapy +	Now w/ Lovaten (Milieu)	Lovaten	N
Schiz	24.4		75.6	41
PN+	81.6		18.4	49
Affective	60.0		40.0	5

$df = 1$
$X^2 = 30.47$
$P = .001$

(affective not inclded in X^2)

H.H.

			N
Schiz	30.3	69.7	89
PN+	62.2	37.8	45
Affective	21.6	78.4	37

$df = 2$
$X^2 = 17.69$
$P = .001$

MMHC

			N
Schiz	16.7	83.3	48
PN+	50.0	50.0	22
Affective	26.7	73.3	15

$df = 2$
$X^2 = 8.36$
$P = .02$

TABLE VIII

Interinstitutional Differences in Duration of Hospitalization

Institution	N	Months in Hospital (Per cent)		
		< 7	7-11	12+
MF	100	22	13	65
HH	173	27	42	31
MMHC	95	67	27	5

$X^2 = 90.6$

$df = 4$

$p < .001$

TABLE XIII

Age and Duration of Hospitalization

Months in Hospitalization (Percent)

	Age Groups	N	7	7-11	12+
MF	< 20	19	0	11	89
	20-39	59	17	14	69
	40+	21	57	10	33
HH	< 20	33	6	52	42
	20-39	100	28	38	34
	40+	40	40	48	13
MMHC	< 20	14	71	14	14
	20-39	48	60	33	6
	40+	30	77	23	0

TABLE XIV

Education and Duration of Hospitalization

Months in Hospital (Percent)

	Education	N	7	7-11	12+
MF	< 12	23	13	0	87
	12-15	51	20	22	56
	16+	25	36	8	56
HH	< 12	56	21	54	25
	12-15	88	19	43	38
	16+	29	59	21	21
MMHC	< 12	35	74	17	9
	12-15	44	57	39	4
	16+	13	85	15	0

Social Class + Duration of Hospitalization
(Months of Hospitalization - Percent)

Menninger

S.C.	≤7	7-11	12+	N
I + II	22.5	14.1	63.4	71
III	13.3	6.7	80.0	15
IV + V	100.0	0	0	3

$df = 2$ (χ^2)
$\chi^2 = 1.55$
$P = NS$

H.H.

				N
I + II	33 3	36.1	30.6	36
III	25.0	55.6	19.4	36
IV + V	30.8	44.2	25.0	52

$df = 4$
$\chi^2 = 2.85$
$P = NS$

MMHC

				N
I + II	72.7	27.3	0	22
III	77.8	11.1	11.1	9
IV + V	68.3	24.4	7.3	41

$df = 2$ (χ^2)
$\chi^2 = .78$
$P = NS$

Survival Rates - Duration of Hospitalization

(Months of Hospitalization - Percent)

Meninges

	<7	7-11	12+	N
I + II	22.5	14.1	63.4	71
III	13.3	6.7	80.0	15
IV + V	100.0	0	0	3

$df = 2$ (x^2)

$x^2 = 1.55$

$P = NS$

H.H

				N
I + II	33 3	36.1	30.6	36
III	25.0	55.6	19.4	36
IV + V	30.8	44.2	25.0	52

$df = 4$

$x^2 = 2.85$

$P = NS$

MM HC

				N
I + II	72.7	27.3	0	22
III	77.8	11.1	11.1	9
IV + V	68.3	24.4	7.3	41

$df = 2$ (x^2)

$x^2 = .78$

$P = NS$

TABLE XV

F Score and Duration of Hospitalization

F Score		N	Months in Hospital (Percent) < 7	7-11	12+	
MF	10-29	47	26	17	57	df = 2
	30-49	38	21	5	74	χ^2 = 2.02
	50-70	7	14	29	57	NS
HH	10-29	53	15	45	40	df = 4
	30-49	81	33	38	28	χ^2 = 8.93
	50-70	29	17	59	24	NS
MMHC	10-29	13	69	31	0	df = 2
	30-49	28	64	32	4	χ^2 = 0.79
	50-70	31	77	23	0	NS

Table XVIII

Diagnosis and Duration of Hospitalization (percent)

Meningeal

	<7	7-11	12+	N
Schiz	4.9	4.9	90.2	41
PN-Personality	16.3	36.7	46.9	49
affective	20.0	40.0	40.0	5

df = 2
χ^2 = 19.2
P = 001

(affective not included in χ^2)

HH

				N
Schiz	22.5	41.6	35.9	89
PN Personality	28.9	51.1	20.0	45
affective	46.8	29.8	23.4	47

df = 4
χ^2 = 11.8
P = 05

MMHC

				N
Schiz	51.1	42.2	6.7	45
PN Personality	80.0	16.0	4.0	25
affective	92.9	7.1	0	14

df = 2
χ^2 = 11.2
P = .01

χ^2

Table VIII

Diagnosis and Duration of Hospitalization (percents)

Meningeal

	< 7	7-11	12 +	N
Schiz	4.9	4.9	90.2	41
N-Psychotic	16.3	36.7	46.9	49
Affective	20.0	40.0	40.0	5

$df = 2$
$\chi^2 = 19.2$
$P = .001$

(Affective not included in χ^2)

H H

				N
Schiz	22.5	41.6	35.9	89
N Psychotic	28.9	51.1	20.9	45
Affective	46.8	29.8	23.4	47

$df = 4$
$\chi^2 = 11.8$
$P = .05$

M M H C

				N
Schiz	51.1	42.2	6.7	45
N Psychotic	80.0	16.0	4.0	25
Affective	92.9	7.1	0	14

$df = 2$
$\chi^2 = 11.2$
$P = .01$

TABLE IX

Interinstitutional Differences in Discharge Diagnosis

Institution	N	Diagnostic Categories (Per cent)		
		Schizophrenia	PN or Personality Disorder	Affective
MENN	95	43	52	5
HH	171	52	26	22
MMHC	85	54	29	16

$X^2 = 23.84$

$df = 4$

$p < .001$

Table XI

Education & Discharge Evaluation (percent)

(2)

Mean.

	R & MI	I	U	N
<12	0	82.6	17.4	23
12-15	1.9	81.5	16.7	54
16+	0	72.7	27.3	22

$df = 2$

$x^2 = 1.10$ (R & MI not included in x^2)

$p = NS$

99

H.H.

				N
<12	20.4	55.6	24.1	54
12-15	22.5	66.3	11.2	89
16+	31.0	58.6	10.3	29

$df = 4$

$x^2 = 5.87$

$p = NS$

17.4

MMHC

				N
<12	25.0	65.6	9.4	32
12-15	29.3	61.0	9.8	41
16+	22.2	66.7	11.1	9

$df = 2$

$x^2 = .35$

$p = NS$

(U not included in x^2)

Education & Discharge Evaluation (percent)

Mean.

	R & MI	I	U	N
<12	0	82.6	17.4	23
12-15	1.9	81.5	16.7	54
16+	0	72.7	27.3	22

$df = 2$

$x^2 = 1.10$

$P = NS$

(R & MI not included in x^2)

H.H.

				N
<12	20.4	55.6	24.1	54
12-15	22.5	66.3	11.2	89
16+	31.0	58.6	10.3	29

$df = 4$

$x^2 = 5.87$

$P = NS$

MMHC

				N
<12	25.0	65.6	9.4	32
12-15	29.3	61.0	9.8	41
16+	22.2	66.7	11.1	9

$df = 2$

$x^2 = .35$

$P = NS$

(U not included in x^2)

Table XXII

(22)

Social Class x Discharge Ratings of Improvement (percent)

Mennuger

Ratings of Improvement

S.C.	R + MI	I	U
I + II	1	79	20
III	0	80	20
IV + V	0	1	0

$df = 1 \quad X^2 = .14$ (NS)

H. 4

I + II	22	67	11
III	27	66	7
IV + V	23	54	23

$df = 4 \quad X^2 = 6.0$ (NS)

MM HC

I + II	45	50	5
III	22	78	0
IV + V	24	70	6

$df = 2$
$X^2 = 3.2$

Table XVII

Social Class & Brokerage Ratings of Improvement (percent)

Managers

Ratings of Improvement

S.C.	R + MI	I	V
I + II	1	79	20
III	0	80	20
IV + V + VI	0	1	0
df = 1	$X^2 = .14$		

H. 4

I + II	22	67	11
III	27	66	7
IV + V	23	54	23
df = 4	$X^2 = 6.0$		

MM HC

I + II	45	50	5
III	22	78	0
IV + V + VI	24	70	6

df = 2
$X^2 = 3.$

Table XXIII

Fscore & Discharge Evaluation

(percent)

Mean

MI or Rec	I	U	N
10-29	2.1	80.9	17.0	47
30-49	0	86.5	13.5	37
50+	0	42.9	57.1	7

$df = 2$

X^2 = (too few in cell)

$P =$ NS

(X^2 = NS)

HH

				N
10-29	25.0	53.8	21.2	52
30-49	23.5	66.7	9.9	81
50+	20.7	62.0	17.2	29

$df = 4$

$X^2 = 3.83$

$P =$ NS

MMHC

				N
10-29	30.8	53.8	15.4	13
30-49	24.0	64.0	12.0	25
50+	36.7	50.0	13.3	30

$df = 2$

$X^2 = 1.13$

$P =$ NS

Table XXIII

Fscore & Discharge Evaluation

(percent)

Mens

	MI or Rec	I	U	N
10-29	2.1	80.9	17.0	47
30-49	0	86.5	13.5	37
50+	0	42.9	57.1	7

(X^2=NS)

df = 2
X^2 = (too few in cell)
P = NS

HH

				N
10-29	25.0	53.8	21.2	52
30-49	23.5	66.7	9.9	81
50+	20.7	62.0	17.2	29

df = 4
X^2 = 3.83
P = NS

MMHC

				N
10-29	30.8	53.8	15.4	13
30-49	24.0	64.0	12.0	25
50+	36.7	50.0	13.3	30

df = 2
X^2 = 1.13
P = NS

Table XXIV

Diagnosis & Discharge Evaluation

(percent)

Manninger

	MI or Rec	I	U	N
Schiz	(0)	(77.5%)	(22.5%)	40
PN, Personality	(2.0%)	(83.7%)	(14.3%)	49
Affective	(0)	(80.0%)	(20.0%)	5

$df = 2$
$X^2 = 1.6$
$P = NS$

(MI or Rec group not included in X^2)

H H

				N
Schiz	(13.5%)	(69.7%)	(16.9%)	89
PN, Personality	(31.8%)	(54.5%)	(13.6%)	44
Affective	(37.8%)	(51.4%)	(10.8%)	37

$df = 4$
$X^2 = 10.9$
$P = .05$

MMHC

				N
Schiz	(39.0%)	(53.7%)	(7.3%)	41
PN, Pers	(8.7%)	(78.3%)	(13.0%)	23
Affective	(35.7%)	(50.0%)	(14.3%)	14

$df = 4$
$X^2 = 6.7$
$P = NS$

Table XXIV

Diagnosis & Discharge Evaluation

(percent)

Manninger

	MI or Rec	I	U	N
Schiz	(0)	(77.5%)	(22.5%)	4(
PN, Personality	(2.0%)	(83.7%)	(14.3%)	4(
Affective	(0)	(80.0%)	(20.0%)	5

$df = 2$
$x^2 = 1.0$
$p = NS$

(MI or Rec group not included in x^2)

H H

				N
Schiz	(13.5%)	(69.7%)	(16.9%)	89
N. Personality	(31.8%)	(54.5%)	(13.6%)	44
Affective	(37.8%)	(51.4%)	(10.8%)	37

$df = 4$
$x^2 = 10.9$
$p = .05$

M M H C

				N
Schiz	(39.0%)	(53.7%)	(7.3%)	41
N. Pers	(8.7%)	(78.3%)	(13.0%)	23
Affective	(35.7%)	(50.0%)	(14.3%)	14

$df = 4$
$x^2 = 6.7$
$p = NS$

TABLE X

Interinstitutional Differences in Discharge Evaluation

Discharge Evaluation (Per cent)

Institution	N	Recovered	Much Improved	Improved	Unimproved
MENN	99		1	80	19
HH	172		23	62	15
MMHC	88		28	61	10

$X^2 = 29.3$

$df = 4$

$p < .001$

Table XXVI

Age & Diagnosis (percent)

Mennuger

	<20	20-39	40+	N
Schiz	14.6	82.9	2.4	41
PN	26.5	44.9	28.6	49
affective	0	0	100.0	5

df = 2
X^2 = 15.8
P = .001

(affective not included in X^2)

H. H.

				N
Schiz	24.7	70.8	4.5	89
PN	22,2	53.3	24.5	45
affective	2.7	29.7	67.6	37

df = 4
X^2 = 58.6
P = .001

MMHC

				N
Schiz	14.6	68.8	16.7	46
PN	24.0	44.0	32.0	25
affective	0	21.4	78.6	14

df = 2
X^2 = 4.19
P = NS

(affective not included in X^2)

Table XXVI

Age & Diagnosis (percent)

Meninges

	<20	20-39	40+	N
Schiz	14.6	82.9	2.4	41
PN	26.5	44.9	28.6	49
Affective	0	0	100.0	5

$df = 2$
$X^2 = 15.8$
$P = .001$

(Affective not included in X^2)

H. H.

				N
Schiz	24.7	70.8	4.5	89
PN	22,2	53.3	24.5	45
Affective	2.7	29.7	67.6	37

$df = 4$
$X^2 = 58.6$
$P = .001$

MMHC

				N
Schiz	14.6	68.8	16.7	46
PN	24.0	44.0	32.0	25
Affective	0	21.4	78.6	14

$df = 2$
$X^2 = 4.19$
$P = NS$

(Affective not included in X^2)

Table XXVII

Education & Diagnosis (Percent)

Negro

	<12	12-16	16+	N
Schiz	17.1	48.8	34.1	41
PN	22.4	59.2	18.4	49
affective	40.0	60.0	0	5

df = 2
X^2 = 2.92
P = NS

(affective not included in X^2)

HH

				N
Schiz	27.0	56.2	16.8	89
PN	35.7	52.4	11.9	42
affective	29.7	45.9	24.3	37

df = 4
X^2 = 3.06
P = NS

MMHC

				N
Schiz	49.0	41.8	9.1	55
PN	43.5	47.8	8.7	23
affective	38.5	53.8	7.7	13

df = 2
X^2 = .56
P = NS

(12-15 and 15+ combined for X^2)

Table XXVII

Education & Diagnosis (Percent)

Men

	<12	12-16	16+	N
Schiz	17.1	48.8	34.1	41
PN	22.4	59.2	18.4	49
Affective	40.0	60.0	0	5

$df = 2$
$X^2 = 2.92$
$P = NS$

(Affective not included in X^2)

HH

				N
Schiz	27.0	56.2	16.8	89
PN	35.7	52.4	11.9	42
Affective	29.7	45.9	24.3	37

$df = 4$
$X^2 = 3.06$
$P = NS$

MMHC

				N
Schiz	49.0	41.8	9.1	55
PN	43.5	47.8	8.7	23
Affective	38.5	53.8	7.7	13

$df = 2$
$X^2 = .56$
$P = NS$

(12-15 and 15+ combined for X^2)

Table XXVIII

Social Class + Diagnosis (Percent)

Menn

	I + II	III	IV + V	N
Schiz	78.4	21.6	0	37
PN	82.9	14.6	2.4	41
affective	60.0	20.0	20.0	5

$df = 1$ (χ^2)

$\chi^2 = 0.7$

$P = NS$

HH

				N
Schiz	26.5	42.6	30.9	68
PN	25.7	28.6	45.7	35
affective	32.1	21.4	46.4	28

$df = 4$

$\chi^2 = 5.1$

$P = NS$

MMHC

				N
Schiz	41.7	8.3	50.0	36
PN	22.2	22.2	55.6	18
affective	16.7	8.3	75.0	12

$df = 2$

$\chi^2 = 3.1$

$P = NS$

Table XXIX

F Score + Diagnosis (Percent)

Mennuges

	10-29	30-49	50+	N
Schiz	38.9	52.8	8.3	36
PN	66.0	34.0	0	47
Affective	0	50.0	50.0	4

$df = 2$
$\chi^2 = 4.13$
$P = NS$

(PN + Affective combined for χ^2)

HH

				N
Schiz	38.1	47.6	14.3	84
PN	35.7	54.8	9.5	42
Affective	14.3	48.6	37.1	35

$df = 4$
$\chi^2 = 14.3$
$P = .01$

MMHC

				N
Schiz	14.3	37.1	48.6	35
PN	28.6	47.6	23.8	21
Affective	7.7	38.5	53.8	13

$df = 2$
$\chi^2 = .09$
$P = NS$

(PN + Affective combined for χ^2)

Table XXIX

F Score + Diagnosis (Percent)

Mennuges

	10-29	30-49	50+	N
Schiz	38.9	52.8	8.3	36
PN	66.0	34.0	0	47
Affective	0	50.0	50.0	4

$df = 2$
$X^2 = 4.13$
$P = NS$

(PN + Affective combined for X^2)

HH

				N
Schiz	38.1	47.6	14.3	84
PN	35.7	54.8	9.5	42
Affective	14.3	48.6	37.1	35

$df = 4$
$X^2 = 14.3$
$P = .01$

MMHC

				N
Schiz	14.3	37.1	48.6	35
PN	28.6	47.6	23.8	21
Affective	7.7	38.5	53.8	13

$df = 2$
$X^2 = .09$
$P = NS$

(PN + Affective combined for X^2)

Selection of Treatment + Discharge Evaluation

H.H.	R + MI	I	U
Psych + others	16	36	10
Somatic	24	70	16

P = NS

MENN

Psych + others	1	50	6
Somatic	0	29	13

$\chi^2 = 5.28$ $df = 1$ $P = .05$ (R+MI not included in χ^2)

MMHC

Psych + others	4	19	1
Somatic	21	32	5

P = NS

Duration of Hospitalization + Discharge Evaluation

H.H.	R + MI	I	U
< 7 months	17	22	7
7-11 months	14	45	14
12+ months	9	39	5
	(P=NS)		
MENN			
< 7 months	0	16	5
7-11	1	9	3
12+	0	54	11
	(P=NS)		
MM HC			
< 7 months	18	33	6
7-11	4	15	2
12+	0	5	0
	(P=NS)		

Duration of Hospitalization and Selection of Treatment

HH	Psych & Others	Somatic
< 7 months	22	24
7–11	30	35
12+	11	42
	$X^2 = 10.35$	$df = 2$ $P = .01$

MENN		
< 7 months	1	6
7–11	3	5
12+	17	32
		$P = NS$

MMHC		
< 7 months	20	37
7–11	2	21
12+	1	4

$X^2 = 4.40$ $Df = 1$ $P = .05$ (12+ not included in X^2)

November 6, 1961

Mr. Case
Altro Workshops
Bronx, N. Y.

Dear Mr. Case:

As per our discussion today, I am enclosing three decks of IBM cards, numbered "100" Deck, "200" Deck, and "300" Deck. I should like the following operations performed on each of these three decks with the use of a counter-sorter.

1. Each deck is to be run and sorted on Col. 23. Each deck will divide into 23/1, 23/2, 23/3, 23/4,0 (other). For the following run we are interested only in 23/1, 23/2, 23/3/ All 23/others will not be run.
2. For Col. 23/1, run out and count on Col. 26.
   For Col. 23/2, run out and count on Col. 26.
   For Col. 23/3, run out and count on Col. 26.

3. All cards are then to be recombined into their respective "100" "200" and "300" decks. If a check is required, all "100" cards are punched "1" in Col. 1, all "200" punched "2" in Col. 1., etc.

4. Each deck is to be run and sorted on Col. 29. For the following analysis, the decks will be divided into Col. 29/ 1,2,3,4,5; Col. 29/6,7; Col. 29/8, 9. Cards punched 29/0 will not be run.
5. Then for 29/1,2,3,4,5; 29/6,7; 29/8,9 run and count cards on Col. 23 and Col. 26.

I am enclosing some tally sheets for this purpose. I hope that these instructions are understandable.

A bill for this service may be addressed to: Dr. Max Fink, Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, N. Y.

If there are any difficulties with these analyses, I may be reached at Hillside Hospital, Fieldstone 3-7800, Extension 235.

Thank you.

Sincerely yours,

Nathaniel H. Siegel, Ph.D.

Sociopsychological Aspects of Psychiatric Treatments:

A Study of Three Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

Aided, in part, by grant MY-2092 of the National Institute of Mental Health, U.S. Public Health Service; and the Nassau County Mental Health Board.

The cooperation of the staffs of the Massachusetts Mental Health Center and the C.F. Menninger Memorial Hospital is gratefully acknowledged.

* Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

V: 2/62

In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered ( ). They indicated, for example, thata higher proportion of lower class patients in treatment were classified as psychotic while significantly higher proportions of upper class patients were classified as neurotic and personality disorders. For all patients, psychotherapy was applied in disproportionately high degrees to upper class patients. Within each diagnostic group, psychotherapy was applied more often to upper class patients and organic therapies to lower class subjects. Similar

The significance of economic factors and availability of treating personnel determining the observed differences could not be excluded in these studies. To test the role of

social factors in the treatment of hospitalized patients under conditions excluding the factors of patient's finances and availability of treatments, a patient census type survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

We observed that age, education and place of birth were significantly associated with choice of treatment, duration of hospitalization, clinical discharge evaluation and to diagnosis ( ). Older, foreign-born patients with little formal education were more likely to receive somatic therapy, were kept in the hospital for shorter periods of time, and more often rated as recovered or much improved on discharge. In contrast, the younger, better educated and native born patients more often received psychotherapy as the sole form of treatment, were hospitalized for longer periods and received

the poorer clinical discharge ratings.

These observations were also related to measures of stereotypy as reflected in subject's responses to a modified California F Scale ( ). Higher F scores were associated with diagnoses of involutional psychosis, shorter periods of hospitalization, and a higher incidence of referral for somatic therapy ( ). It was concluded that the effects on psychiatric treatment patterns of social class (as defined by Hollingshead and Redlich), age, education birthplace and degree of stereotypy were not a result of economic factors or availability of treatment alone. One suggestion was that the observations were a reflection of different modes of adaptation, communication and expression. It was postulated that subjects of lower social classes, lesser education and foreign birth would more frequently manifest symptoms in non-verbal, sensory or motor patterns; while upper class subjects would utilize verbal means of expression.

A second interpretation, however, related the observations to the treatment philosophies and attitudes of institutional leaders and personnel. It was suggested that in institutions where psychotherapy was highly valued, upper class individuals would receive inordinate representation in this therapy. Similarly, discharge evaluations and duration of hospitalization would be affected by differences in staff expectations for individuals of differing social class.

To test this second suggestion we decided to repeat the 1957 Hillside study; to employ the same procedures; and concurrently to extend the observations to two other institutions, the C.F. Menninger Memorial Hospital of Topeka and the Massachusetts Mental Health Center of Boston. In these three hospitals, institutional personnel affect similar attitudes in treatment and education. Each is a teaching hospital with a full time supervisory staff and active research department. They emphasize psychoanalytically-oriented psychotherapy but

provide other treatments including somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients, does not provide custodial care and tends to draw their patient population from similar age groups, excluding children and the senile aged.

Major institutional differences are seen in their sources of financial support, different institutional policies regarding length of stay and after-care. The Massachusetts Mental Health Center (MMHC) is a public institution supported by state funds; Hillside Hospital (HH) is a non-profit voluntary hospital with a major portion of its income derived from city and other community funds; and Menninger Hospital (MFH) is a private institution. The MMHC has a 90 day limit for hospitalization, while HH a flexible one year period; and MFH, a more liberal attitude. At MFH and MMHC a day hospital and outpatient clinic are freely available to all patients; while at HH there is no day hospital and a short term, limited

aftercare program is available to a few patients.

The primary reason for selecting the institutions, however, lay in the expectation that they would serve patients of differing social classes (see ff) and that differences in this dimension would be reflected in the treatment variables.

The specific purpose of this study was to determine population differences between the three institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

METHOD

All patients in residence in these institutions on a given date in January 1959 were studied. While MFH and HH had voluntary patients only, a small number of those at MMHC were assigned by the courts to the institution for psychiatric evaluation, or a chronic schizophrenic group admitted from a state hospital for a specific research project. These patients were excluded from the study because of their non-voluntary status. The study population consisted of 173 patients at HH, 100 at MFH and 95 at MMHC. Each patient was given the California F scale ( ) on the designated date. Patients' records were analyzed after a period of 18 months, which was the cut-off point for the analysis of the treatment variables. For the determination of social class, the Hollingshead 2-factor index was used ( ).

RESULTS

1. Methodologic Aspects

It was soon observed that the very factors we were interested in studying affected the collection and organization of the data. Variations in designations of type of treatment and expressions used for diagnosis and treatment evaluation, made analyses difficult, and required considerable exertion for uniformity.

a) Designation of Type of Treatment: Among the institutions, the criteria for the designation that a patient had received "psychotherapy" differed markedly, making uniformity in classification difficult. At MPH psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged an additional fee. Sessions with the psychiatric resident were considered part of routine administrative patient care. At HH psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists do not treat

patients directly, but restricted their activities to supervising the resident therapists. At the MMHC, in contrast, psychotherapy was designated as a function of many disciplines - psychiatric residents, nurses, medical students, social workers and psychologists. Formal records of such sessions were not routine included in the patient's record and to ascertain which patients were receiving psychotherapy, we had to interview the resident in charge of each case.

b) Diagnosis: There were individual institutional diagnostic styles, which made comparisons difficult. At MFH discharge diagnoses employed the multiple classification system of the American Psychiatric Association while both HH and MMHC followed unitary indigenous systems. Several examples of diagnoses from MFH are listed in Table , with our suggested conversions into categories comparable to the other two institutions, providing, however, an unavoidable source of distortion. (Similar observations have been reported by Pasamanick and his associates ( ) who have shown that diagnoses within

social class composition of the three institutions (Table). At MFH the population was predominantly upper class with 82 per cent of patients in classes I or II, only one patient in class IV, and none in class V. The middle class predominated at MH with most patients in classes III and IV (68 per cent). At MMHC, patients were chiefly from the lower classes with 57 per cent in classes IV and V.

b) Age: There was no difference in the institutional populations in age distribution. A range of one fith the patients were under the age of twenty and one quarter were forty years or older.

c) Education: The populations differed in educational attainment, with patients at MFH having more years of education than those at MMHC. While 41 per cent of the patients at MMHC failed to complete high school, only 32 per cent at MH and 23 percent at MFH did not graduate. This finding is consistent with the social class difference, since the social

TABLE III

Interinstitutional Comparisons for Sociopsychological Variables

		MFH	HH	MMHC	
1.		31%	7%	3%	
2.		51	20	28	X^2=121.5
Social class	3.	17	34	13	df=8 p=.001
	4.	1	34	29	
	5.	0	5	28	
Age	< 20	19%	19	22	X^2=3.9 df=4 p=n.s.
	20-39	59	58	23	
	40 +	22	23	33	
years Ed.	< 12	23	32	41	
	12-15	54	51	49	X^2=9.7 df=4 p=.05
	16 +	23	17	10	
F Score	10-29	51	33	20	
	30-49	41	50	38	X^2 =39.2 df =4 p =.001
	50-70	8	18	42	

class measure is, in part, based on education.

d) F Score: Differences in the distribution of F Scores were observed. Fifty-one per cent of MFH patients had F scores below 30, and only eight per cent with scores of 50 or above. In contrast, at MMHC twenty per cent were below 30 on the F Scale, and forty-two per cent had scores of 50 or more. At HH fifty per cent of the patients had F scores in the middle range between 30 and 49.

3. Psychiatric Variables

The design of our study included examination of the relations of the social to the psychiatric variables within each institution, as well as between institutions. Thes comparisons proved difficult, in part because of differences in the definition of the psychiatric variables, and, in part, because these variables ranged so widely that comparable cut-off criteria could not be determined. For example, to compare institutions in relation to length of

hospital stay, various cut-off periods were tried but none allowed for equivalent cell sizes. At MFH, less than 10% of patients under 40 years remained less than 7 months, and 80% more than 12 months. At MMHC, 70% of all patients remained less than 7 months, and 6% more than 12 months.

Accordingly, emphasis will be placed on the differences between institutions, with citation of relevant intra-institutional relationships.

a) Selection of Treatment: Among institutions, fewer patients at MFH received somatic therapy than at the other two institutions. Concurrently a smaller percentage of Menninger patients were classed as receiving psychotherapy, with a large number (36 per cent) receiving milieu forms of treatment. At MH these patients would have been classified as having received psychotherapy. If one contrasts the percentage of patients receiving somatic therapy, MFH shows significantly less than either of the other two institutions.

(In Tables , milieu and psychotherapies were combined, permitting a contrast of somatic and psychological therapies.)

Within each institution, age was related to selection of treatment at MFH and F score at MFH and HH (Table). Patients who were young or whose F score was low received psychotherapy with greater frequency than patients who were older or who had high F scores. Educational achievement and social class did not significantly affect selection of treatment at any hospital.

Among the psychiatric variables, within each institution, diagnosis was the most highly related variable to selection of treatment. Discharge evaluation at MFH and duration of hospitalisation at HH and MMHC were also related to selection of treatment. Thus, somatic treatment was selected for patients classified as schizophrenia and affective disorder more often than those classed as psychoneurotic. At MFH, patients receiving somatic treatment (predominantly those

classed as schisophrenia) received discharge ratings of unimproved than patients receiving psychotherapy alone. With regard to duration of hospitalisation, patients hospitalized for longer periods were those receiving somatic therapy.

b) Duration of Hospitalisation: Considerable differences were shown between the three institutions with respect to patient's length of stay (Table). MFH patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the HH patients and only 5 per cent of those at MMHC. The modal stay of the HH group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalisation.

MFH and HH age was the social factor most closely related to length of hospitalisation -- younger patients remaining for the longest period. At every age level, however, those

at MFH remained longer than at HH or MMHC. Indeed, the interinstitutional differences were so great that a patient in the oldest age group was more likely to be hospitalized for twelve months or more at MFH than were patients in the youngest age group at MMHC. At MFH and HH there was also a significant relation between duration of hospitalization and F score, the lower F score being associated with longer hospital stay.

c) Diagnosis: The distribution of discharge diagnoses is shown in Table . For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders and psychoneurosis and personality disorders. The diagnosite proportions were similar for the HH and MMHC populations, but the MFH patients were regarded as having fewer affective and schizophrenic disorders, but a larger number of psychoneurosis or character disorders.

Intrainstitutional analysis showed that at HH both age

and F score were related to diagnosis; at MFH age alone of the social factors was related to diagnosis; while at MMHC none of the social variables were so related. Of the psychiatric variables, diagnosis was significantly related at each hospital to selection of treatment and duration of hospitalization; and only at HH to discharge evaluation (vide infra).

d) Discharge Evaluation: In each hospital, most patients are evaluated at the time of discharge as "improved" (Table). At MFH, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the least number of "unimproved" (10%) were found at MMHC.

Analyses within each institution showed variable results. At HH and MMHC there was a tendency for older patients to be rated better than younger ones, but the results are statistically significant only at HH. At MFH there was an opposite trend, with older patients more likely to be rated unimproved.

F score + Duration of Hospitalization

1/27/62

MF $df = 2$ $\chi^2 = 2.02$ $P = NS$

HH $df = 4$ $\chi^2 = 8.93$ $P = NS$

MMHC $df = 2$ $\chi^2 = 0.79$ $P = NS$

F score & Duration of Hosp.

	<7	7-11	12+	
ME 10-29	12	8	27	
30-49	8	2	28	
50-70	1	2	4	

	<7	7-11	12+	
10-29	10.7 → 12	6.1 → 8	30.1 → 27	47
30-70	10.3 → 9	5.9 → 4	28.9 → 32	45
	21	12	59	92

$df = 2$ $\quad \chi^2 = 2.02$ $\quad$ NS

.01
.16
.59
.61
.32
.33

HH

	<7	7-11	12+
10-29	8	24	21
30-44	27	31	23
50-70	5	17	7

13	8	23.4	24	16.6 21 53
19.9	27	35.8	31	25.3 23 81
7.1	5	12.8	17	9.0 7 29
	40		72	51 163

1.92
.02
1.17
2.53
.64
.21
.62
.37
1.45

$df = 4$

$\chi^2 = 8.93$

$p = NS$

MMHC

	<7	7-11	12+
10-29	9	4	0
30-49	18	9	1
50-70	24	7	0

	<7		7-12+	
10-29	9.2	9	3.8	4	13
30-49	19.8	18	8.1	10	28
50-70	22.0	24	9.0	7	31
		51		21	72

.00
.01
.16
.00
.18
.44

df=2
$x^2 = 0.79$
P= NS

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A Comparison of Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.
Nathaniel Siegel, Ph.D.
and
Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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* Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

VI: 3/62

In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered ( ). They indicated, for example, that a higher proportion of lower class patients in treatment were classified as psychotic while significantly higher proportions of upper class patients were classified as neurotic and personality disorders. For all patients, psychotherapy was employed in disproportionately high degrees with the upper class patients. Within each diagnostic group, psychotherapy was administered more often to upper class patients and organic therapies to lower class subjects.

The significance of economic factors and availability of treating personnel determining the observed differences could not be excluded in these studies. To test the role of

social factors in the treatment of hospitalized patients under conditions excluding the factors of patient's finances and availability of treatments, a patient census type survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

We observed that age, education and place of birth were significantly associated with choice of treatment, duration of hospitalization, clinical discharge evaluation and diagnosis ( ). Older, foreign-born patients with little formal education were more likely to receive somatic therapy, were kept in the hospital for shorter periods of time, and more often were rated as recovered or much improved on discharge. In contrast, the younger, better educated and native born patients more often received psychotherapy as the sole form of treatment, were hospitalized for longer periods and received

the poorer clinical discharge ratings.

These observations were also related to measures of stereotypy as reflected in subjects' responses to a modified California F Scale ( ). Higher F scores were associated with diagnoses of involutional psychosis, shorter periods of hospitalization, and a higher incidence of referral for somatic therapy ( ). It was concluded that the effects of social class, age education, birthplace and degree of stereotypy on psychiatric treatment patterns were not a result of economic factors or availability of treatment alone. One suggestion was that the observations were a reflection of individual differences in modes of adaptation, communication and expression. It was postulated that subjects of lower social classes, lesser education and foreign birth would more frequently manifest symptoms in non-verbal, sensory or motor patterns, while upper class subjects would utilize verbal means of expression.

A second interpretation, however, related the observations to the treatment philosophies and attitudes of institutional leaders and personnel. It was suggested that upper class individuals would receive inordinate representation in psychotherapy in institutions where psychotherapy was highly valued. Similarly, discharge evaluations and duration of hospitalisation would be affected by differences in staff expectations for individuals of differing social class.

To test this second suggestion we decided to repeat the 1957 Hillside study employing the same procedures and concurrently to extend the observations to two other institutions, the C.F. Menninger Memorial Hospital of Topeka and the Massachusetts Mental Health Center of Boston. In these three hospitals, institutional personnel affect similar attitudes in treatment and education. Each is a teaching hospital with a full time supervisory staff and active research department. They emphasise psychoanalytically-oriented psychotherapy but

METHOD

All voluntary, adult patients in residence in these institutions on a given date in January 1959 were studied. While MFH and HH had voluntary patients only, a small number of those at MMHC were assigned by the courts for psychiatric evaluation, or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. The study population consisted of 173 patients at HH, 100 at MFH and 95 at MMHC. Each patient was given the California F scale ( ) on the designated date. Eighteen months later the patients' records were analyzed. For the determination of social class, the Hollingshead 2-factor index was used ( ).

Another problem was the presence of different research programs, affecting clinical routines. At the time of the survey, approximately twenty percent of the patients at MMHC were chronically ill and had been hospitalised for many years. Such a group would not normally have been in this hospital buth they had been transferred from another state institution for a special study.

Thus, it was soon apparent that the very factors we were interested in studying affected the collection and organization of the data. Specific problems were noted in the variations in designations of type of treatment and expressions used for diagnosis and treatment evaluation which made analyses difficult and required considerable exertion for uniformity.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification

difficult. At MFH psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged an additional fee. Sessions with the psychiatric resident were considered part of routine administrative patient care. At MH psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients directly, but restricted their activities to supervising the resident physicians. At the MHHC psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients were receiving psychotherapy, we had to interview the resident in charge of each case.

b) Diagnosis: Individual institutional diagnostic styles also made comparisons difficult. At MFH discharge diagnoses employed the multiple evaluative data scheme

recommended by the American Psychiatric Association while both HH and MMHC followed unitary systems. Several examples of diagnoses from MFH are listed in Table I, with our suggested conversions into categories comparable to the other two institutions. These conversions provide, however, an unavoidable source of distortion. (Similar observations have been reported by Pasamanick and his associated ( ) who indicate that diagnoses within the same institution are also vulnerable to individual differences among examiners.)

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement varied in format and detail. The discharge rating at MFH was tripartite with a separate evaluation for social, characterological and syndrome changes. HH and MMHC had global ratings in which it wad difficult to assess the contribution of each factor of the Menninger System (Table II).

For this study the Menninger syndrome rating was compared to the global ratings of MH and MMHC.

Table II

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2. Sociopsychological Variables

a) Social Class: There was a marked difference in the social class composition of the three institutions (Table III). At MFH the population was predominantly upper class with 82 per cent of patients in classes I or II, only one patient in class IV, and none in class V. At MH 68 per cent of patients were in classes III and IV, while at MMHC 57 per cent of patients were in classes IV and V.

b) Age: There were no differences in age distribution in the institutional populations. One fifth the patients were under the age of twenty and one quarter were forty years or older.

c) Education: The populations differed in educational

Cannot use Don't for Chi² unless N = 100 or more

TABLE III

Interinstitutional Comparisons for Sociopsychological Variables

		MFH	HH	MMHC	
Social Class	1.	31%	7%	3%	
	2.	51	20	28	X^2=121.5 df=8 p<.001
	3.	17	34	13	
	4.	1	34	29	
	5.	0	5	28	
Age	≤20	19%	19%	22%	
	20-39	59	58	23	X^2=3.9 df=4 p=n.s.
	40 +	22	23	33	
Years of Education	≤12	23%	32%	41%	
	12-15	54	51	49	X^2=9.7 df=4 p<.05
	16 +	23	23	10	
F Score	10-29	51%	33%	20%	
	30-49	41	50	38	X^2=39.2 df=4 p<.001
	50-70	8	18	42	

attainment, with patients at MFH having more years of education than those at MMHC. While 41 per cent of the patients at MMHC failed to complete high school, only 32 per cent at HH and 23 per cent at MFH did not graduate. This finding is consistent with the social class differences, since the social class measure is, in part, based on education.

d) F Score: Differences in the distribution of scores on the California F Scale were observed. Fifty-one per cent of MFH patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at MMHC twenty per cent were below 30 on the F Scale, and forty-two per cent had scores of 50 or more. At HH fifty per cent of the patients had F scores in the middle range between 30 and 49.

3. Psychiatric Variables

The study included examination of the relations of the social to the psychiatric variables within each institution,

as well as between institutions. These comparisons proved difficult because of differences in the definition of the psychiatric variables, the variables ranged widely and comparable cut-off criteria could not be determined, and varying degrees of missing data. For example, to compare institutions in relation to length of hospital stay, various cut-off periods were tried but none allowed for equivalent cell sizes. At MPH, one quarter of the patients remained fewer than seven months, and two-thirds more than twelve months. At MHHC, in contrast, 70% of all patients remained less than seven months, and only 6% more than twelve months. In determining social class there was information available for 292 of 371 patients. Unclassifiable cases were most often where the education of the husband or the father of a housewife or minor was not recorded.

Accordingly, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions,

with citation of relevant intra-institutional relationships (Table IV).

a) Selection of Treatment: Among institutions, fewer patients at MFH received somatic therapy than at the other two institutions (Table V). Concurrently a smaller percentage of Menninger patients were classed as receiving psychotherapy, with a large number (36 percent) receiving milieu forms of treatment. At HH patients receiving these therapies as a primary treatment are classified as receiving psychotherapy since each is concomitantly seeing a resident psychiatrist. If one contrast the percentage of patients receiving somatic therapy, MFH shows significantly less than either of the other two institutions.

Table V about here

Within each institution, age was related to selection

of treatment at MFH and F score at both MFH and HH (Table IV). (In Table IV, milieu and psychotherapies were combined, permitting a contrast of somatic and psychological therapies.) Patients who were young at MFH or whose F score was low at MFH or HH received psychotherapy with greater frequency than patients who were older or who had high F scores. Educational achievement and social class did not significantly affect selection of treatment at any hospital.

Among the psychiatric variables within each institution, diagnosis was the most highly related variable to selection of treatment. Somatic treatment was selected for patients classified as schizophrenia and affective disorder more often than those classed as psychoneurotic. Discharge evaluation at MFH and duration of hospitalisation at HH and MMHC were also related to selection of treatment. At MFH, patients receiving somatic treatment (predominantly those classed as

however, those at MFH remained longer than at HH or MHHC. Indeed, the interinstitutional differences were so great that a patient in the oldest age group was more likely to be hospitalized for twelve months or more at MFH than were patients in the youngest age group at MHHC.

Table V about here

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c) Diagnosis: The distribution of discharge diagnoses is shown in Table VII. For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders. The diagnostic proportions were similar for the HH and MHHC populations, but the MFH patients were regarded as having fewer affective and schizophrenic disorders and a larger number of psychoneurotic or personality disorders.

Intrainstitutional analysis showed that at HH both age and F score were related to diagnosis; at MFH age alone of

the social factors was related to diagnosis; while at MMHC none of the social variables were so related. Of the psychiatric variables, diagnosis was significantly related at each hospital to selection of treatment and duration of hospitalization; and only at HH to discharge evaluation (vide infra).

Table VII about here

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d) Discharge Evaluation: In each hospital, most patients are evaluated at the time of discharge as "improved" (Table VIII). At MFH, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at MMHC.

Analyses within each institution showed variable results.

At HH and MHHC there was a tendency for older patients to be rated better than younger ones, but the results are statistically significant only at HH. At MFH there was an opposite trend, with older patients more likely to be rated unimproved.

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California *F* Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distribution of diagnoses and discharge evaluations. In the original Hillside Hospital study the observed differences in the psychiatric variables were ascribed to differences in social class and the associated factors of education and stereotypy as reflected in the *F* score. In this tri-hospital study, the interinstitutional comparisons of the psychiatric variables also show significant differences, and these follow the expected distribution of social class, education and *F* score. The more significant test of the hypothesis lay in the intra-institutional comparisons, where it was anticipated that social

class differences would also be related to psychiatric variables. But variations in diagnostic styles, the over-riding institutional variations in duration of hospitalization and discharge ratings vitiated these comparisons and affected the significance of the inter-institutional comparisons as well. But, in our original selection of institutions we selected these three institutions as being comparable in academic, scientific and therapeutic rigor, anticipating principal differences in the social class composition of their patients. They were different in social class patterns but most striking were the methodological problems -- the wide discrepancies in the definitions of the psychiatric variables.

One conclusion could be that the observed differences in psychiatric variables were little more than administration idiosyncrasies. The contrast in the lenghh of time that patients are hospitalized in MFH and MMHC is so great,

however that it is not likely to be a reflection of differences in the type or quality of mental disorder. The differences in such administrative features as complexity of diagnostic formulation and discharge evaluation, range of therapies available and the definition of psychotherapy are great -- and these stylistic differences follow a pattern. A pattern which is consistent with previous findings and hypotheses on the relation of social factors to psychiatric care of hospitalized patients. It is possible then, that the treatment philosophy of an institution is derived to a significant extent from the predominant sociopsychological features of the patient population partly in relation to the preceptions, attitudes, identification and aspirations of the staff and partly in relation to the expectations of the patients and their families derived their social background.

These methodological difficulties and the significant effect of administrative and staff attitudes on psychiatric

variables are relevant to the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The frequent use of discharge ratings, diagnostic classes or length of hospitalization as criteria of therapeutic values or comparability of subjects and populations are subject to excessive error unless the institutions are clearly matched for administrative philosophy and social class composition of population -- to mention only the two most prominent variables of this study. The paradoxical nature of a failure to account for these variables is to be seen in a literal interpretation of the observation of this study. The MFH has the most highly trained personnel conducting treatment which is applied for optimal (unlimited) periods of time; in populations with the lease proportior diagnosed in an unfavorable prognostic group (schizophrenia) -- and yet, the proportion of favorable treatment results is the poorest. At MMHC, in contrast, where the least trained therapists apply treatments

for the shorter periods, to a population with a higher proportion diagnosed schizophrenia (? poor prognoses ?) the proportion of favorable discharge ratings is significantly greater! Obvbously, these observations do not reflect the therapeutic efficacy of these institutions, but indicates the different criteria of improvement.

This lack of charity in diagnostic schemata and incomparibility of psychiatric treatment variables lends pause to the attempted comparative studies of psychiatric therapies. For example, the recent failures by various biological scientists to confirm observations made in other laboratories may be as much a reflection of differencies in populations, psychiatric criteria, etc. as fallacies in the original hypotheses.

The widespread use of such terms as "schizophrenia" or "psychoneuroses" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results (Bellak), most marked recently

in the conflicting studies of a serum factor in schizophrenia; the range of clauses for the whole armamentarium of somatic and psychological therapies or the incomparability of the physiological -- behavioral correlations as seen in the mecholyl (Funkenstein) and sedation threshold tasks. Even were a valid observation to be reported from one clinic, do we have methods available to describe populations adequately to provide a sound confirmation? We believe not, and conclude from these observations that increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria, rather than the present methods which appear to be so highly dependent on institutional and observer attitudes, and the sociopsychological aspects of the therapist-patient interaction.

What of the relation of social class to psychiatric treatment in these populations? Significant differences in treatment pattern exist between these institutions, and they

do cater to different modal social classes, but within the methodological limitations outlined earlier, social class was no greater a determinant of the psychiatric variables within any institution than were the other variables. We cannot clarify this question for this data. We can conclude, however, that any consideration of patterns of diagnosis and therapy cannot ignore the philosophy of the treatment setting. It is probable that in these hospitals, patient social class as an intra-hospital factor, is less intimately related to diagnosis and type of treatment than the nature of the individual hospital and the social group to which it primarily addresses itself.

The personnel of Hillside Hospital, however, like that of the Menninger Memorial Hospital and the Massachusetts Mental Health Center profess a psychoanalytic allegiance. In institutions with different treatment orientations, it is possible that different relations between these variables

may be observed. In hospitals, for example, where treatment types offered are primarily custodial or somatic, or where staff attitude places allegiance on other treatment modes, individual social class may distinguish treatment groups. It is the institution and its staff and administrative attitudes are a crucial variable in determining the patient's diagnosis, treatment, and length of hospitalization.

2

A Comparison of Sociopsychological Variables and Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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* Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

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In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered ( ). They indicated that proportionately more lower class patients in treatment were classified as psychotic while upper class patients were more often classified as neurotic and personality disorders. Regardless of diagnosis, psychotherapy was employed in disproportionately high degrees with the upper class patients, and organic therapies with lower class subjects.

The influence of economic status and the availability of treating personnel could not be excluded in these studies. To test the role of social factors in the treatment of hospitalized patients independent of patient's finances and availability of treatments, a patient survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

In that sample, age, education and place of birth were significantly associated with choice of treatment, duration of hospitalization, clinical discharge evaluation and

diagnosis ( ). The clinical factors were also related to a measure of stereotypy, the California F Scale ( ). Higher F scores were more often found in patients diagnosed as involutional psychosis referred for somatic therapy and hospitalized for a shorter period ( ).

It was concluded that the effects of social class, age, education, birthplace and degree of stereotypy on psychiatric treatment patterns were not a result of economic factors or availability of treatment alone. One suggestion was that social factors influenced diagnosis and treatment by affecting the verbal and non-verbal symptom patterns of patient behavior. It was postulated that subjects of lower social classes, lesser education and foreign birth would more frequently manifest symptoms in non-verbal, sensory or motor patterns and would expect physical modes of therapy. Upper class subjects would utilize verbal means of expression, and anticipate psychological forms of treatment.

A second interpretation related psychiatric treatment to the philosophies and attitudes of individual psychiatrists and hospital staff attitudes. In institutions where psychotherapy was highly valued, upper class patients would be treated disproportionately with psychotherapy. Similarly, discharge evaluations and duration of hospitalization would be affected by differences in staff expectations for individuals of differing social class.

To test this second hypothesis we decided to repeat the 1957 Hillside (HH) study employing the same procedures and concurrently to extend the observations to two other institutions, the C.F. Menninger Memorial Hospital of Topeka (MFH) and the Massachusetts Mental Health Center of Boston (MMHC). These institutions were selected in the expectation that they serve patients of differing social classes and that differences in this dimension would be reflected in the treatment variables. In these hospitals there is a similarity in attitude towards treatment and education. Each is a teaching hospital with a full time supervisory staff and active research department. They emphasize psychoanalytically-oriented psychotherapy but provide other treatments including somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients, does not provide custodial care and tends to draw its patient population from similar age groups.

The specific aims of this study were to determine population differences between the three institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

METHOD

All voluntary, adult patients in residence in these institutions on a given date in January 1959 were studied. While MFH and HH had voluntary patients only, a small number of those at MMHC were assigned by the courts for psychiatric evaluation, or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. The study population consisted of 173 patients at HH, 100 at MFH and 95 at MMHC. Each patient was given the California F scale ( ) on the designated date. Eighteen months later the patients' records were analyzed for the various social and psychiatric factors of the study. For the determination of social class, the Hollingshead 2-factor index was used ( ). The study included examination of the relations of the social to the psychiatric variables within each institution, as well as between institutions. These comparisons proved difficult because of differences in the definition of the psychiatric variables, the variables ranged widely and comparable cut-off criteria could not be determined, and varying degrees of missing data. For example, to compare institutions in relation to length of hsopital stay, various cut-off periods were tried but none allowed for comparable distributions. At MFH, one quarter of the patients remained fewer than seven months, and two-thirds

more than twelve months. At MMHC, in contrast, 70% of all patients remained less than seven months, and only 6% more than twelve months. In determining social class there was information available for 292 of 371 patients. Unclassifiable cases occurred where the education of the husband of a housewife or the father of a minor was not recorded.

According, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions, with citation of relevant intra-institutional relationships.

RESULTS

1. Methodological Aspects

When reporting studies from a home institution, the structure of the hospital is taken for granted, and either ignored or mentioned briefly. However, in studying a strange institution and attempting to gather comparable data one is made aware of the many differences between institutions. The hospital organization as a determinant of treatment is one methodologic problem. For example, both the MMHC and MFH have day hospital units, while HH does not. At MMHC the treating physician can care for a patient as an in-patient, in the day hospital, and in the after-care clinic. In such a setting, he can feel free to discharge the patient from the hospital at an earlier date, knowing that he will still be responsible for his patient's care; whereas at HH, discharge means termination of that patient-doctor relationship.

Another problem was the presence of different research programs, affecting clinical routines. At the time of the survey, approximately twenty percent of the patients at MMHC were chronically ill and had been hospitalized for many years. Such a group would not normally have been in this hospital but they had been transferred from another state institution for a special study.

Thus, the very factors we were interested in studying

affected the collection and organization of the data. Specific problems were noted in designations of type of treatment, diagnostic terms and evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At MFH psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At HH psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians.

At the MMHC psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy, the resident in charge of each case was interviewed.

b) Diagnosis: Individual institutional diagnostic styles also made comparisons difficult. At MFH discharge

diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both HH and MMHC followed unitary systems. Several examples of diagnoses from MFH are listed in Table I, with our suggested conversions into categories comparable to the other two institutions. These conversions provide, however, an unavoidable source of distortion. (Similar observations have been reported by Pasamanick and his associated ( ) who indicate that diagnoses within the same institution are also vulnerable to individual differences among examiners.)

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement varied in format and detail. The discharge rating at MFH was tripartite with a separate evaluation for social, characterological and syndrome changes. HH and MMHC had global ratings in which it was difficult to assess the contribution of each facter of the MFH system (Table II). For this study the MFH syndrome rating was compared to the global ratings of HH and MMHC.

Table II

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2. Sociopsychological Variables

a) Social Class: There was a marked difference in the social class composition of the three institutions (Table III). At MFH the population was predominantly upper class; at HH middle class; and at MMHC, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients at MFH having more years of education than those at MMHC. While 41 per cent of the patients at MMHC failed to complete high school, only 32 per cent at HH and 23 per cent at MFH did not graduate.

d) F Score: Differences in the distribution of scores on the California F Scale were observed. Fifth-one per cent of MFH patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at MMHC twenty per cent were below 30 on the F Scale, and forty-two per cent had scores of 50 or more. At HH fifty per cent of the patients had F scores in the middle range between 30 and 49.

3. Psychiatric Variables

Intra-institutional comparisons are consolidated in Table IV, while inter-institutional comparisons are presented individually in each section. In Table IV, milieu and psychotherapies were combined, permitting a contrast of somatic and

psychological therapies.

a) Selection of Treatment: Among institutions, fewer patients at MFH received somatic therapy that at HH or MMHC. (Table V). Concurrently a smaller percentage of the MFH patients were classed as receiving psychotherapy, with a large number (36 percent) receiving milieu forms of treatment. At HH patients receiving milieu therapies are classified as receiving psychotherapy as a primary treatment since each patient is concomitantly seeing a resident psychiatrist. If one contrast the percentage of patients receiving somatic therapy, MFH shows significantly less than either of the other two institutions.

Table V about here

Among social-psychological factors, age and *F* score significantly related to treatment selection (older and higher F Score patients more frequently receiving somatic therapy) at MFH; and *F* Score was related to treatment selection at HH. No other factors were significant. None of the social-psychological factors was related to type of treatment at MMHC (Table IV).

Among the psychiatric variables within each institution, diagnosis was significantly related in all three hospitals; discharge evaluation at MFH only, and duration of hospitalization

at HH and MMHC. Somatic treatment was selected for patients classified as schizophrenia and affective disorder more often than those classed as psychoneurotic at each hospital. At MFH, patients receiving somatic treatment (predominantly those classed as schizophrenia) received discharge ratings of unimproved more often than patients receiving psychotherapy alone.

b) Duration of Hospitalization: The three institutions differed with respect to patient's length of stay (Table VI). MFH patients were hospitalised longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the HH patients and only 5 per cent of those at MMHC. The modal stay of the HH group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalisation. Social class and F score were not related to duration at any institution. Of the psychiatric variables, only diagnosis could be related - to those diagnosed as schizophrenia were hospitalised for longer periods at each institution. At every age level, those at MFH remained longer than at HH or MMHC. Indeed, the inter-institutional differences were so great that a patient in the oldest age group was more likely to be hospitalized for twleve months or more at MFH than were patients in the youngest age group at MMHC.

Within institutions, age and education at MFH and HH

were related to lenght of hospitalisation -- younger and less educated patients remaining for the longest period

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Table VI about here

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c) Discharge Evaluation: In each hospital, most patients are evaluated at the time of discharge as "improved" (Table VII). At MFH, however, a higher percentage (19%) of patients were rated as "unimproved" and only a signle patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest propertion of "unimproved" (10%) were found at MMHC.

Analyses within each institution showed variable results. At HH and MMHC there was a tendency for older patients to be rated better than younger ones, but the results are statistically significant only at HH. At MFH there was an opposite trend, with older patients more likely to be rated unimproved; but this did not achieve statistical significance.

Table VII

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d) Diagnosis: For statistical analysis three diagnostic groupsings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table VIII). The diagnostic propertions were similar for the HH and MMHC

populations, but the MFH patients were regarded as having fewer affective and schizophrenic disorders and a larger number of psychoneuretic or personality disorders.

Intrainstitutional analysis showed that at HH both age and F score were related to diagnosis; at MFH age alone of the social factors was related to diagnosis; while at MMHC none of the social variables were so related. Of the psychiatric variables, diagnosis was significantly related at each hospital to selection of treatment and duration of hospitalisation; and only at HH to discharge evaluation.

Table VIII about here

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California F Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distribution of diagnoses and discharge evaluations. The differences in treatment variables between the institutions may result from many factors, including the social aspects highlighted in our initial studies. To define the role of social factors more clearly, we undertook the intra-institutional comparisons. From these analyses, the lack of consistent relationships lends doubt as to the role of patient social factors as principal determinants in treatment within these settings. It was anticipated that within each institution, patients of higher social class, lower F score and better education, would be treated preferentially by psychotherapy, classified as neurotic, remain for shorter periods and receive better discharge ratings. Within the institution, an irregular association between the variables was observed (Table IX). Within one institution, the MMHC, none of the social variables were related to any treatment variable; nor was social class statistically related to any treatment variable at either HH or MFH. Of a

Table IX

Significant Intra-Institutional Relationships by

Chi Square

	HH	MFH
Age - Treatment Selection		**
" - Duration of Hospitalization	**	***
" - Diagnosis	***	***
" - Discharge Evaluation	**	
Education - Duration of Hospitalization	***	*
F Score - Treatment Selection	*	**
" - Diagnosis	**	

NB: No relationship significant for Social Class nor at MMHC.

* $p < .05$

** $p < .01$

*** $p < .001$

possible 48 relationships between social and treatment variables, eleven are statistically significant.

The differences in the HH and MFH data may be a reflection of their populaltion differences: the relation of age to discharge evaluation, and F score to diagnosis at HH reflecting the higher proportion of depressive illnesses; while the relation of age to treatment selection at MFH reflecting their higher proportion of young persons classified psychoneurosis and character disorder. The similarities in HH and MFH data may reflect similar treatment philosophies, which are different from that at MMHC. Conditions of elective treatment and elective duration of hospitalization exist at HH and MFH, and it may be this flexibility that permits the interaction of the social variables. At MMHC, however, the limited stay and need for rapid treatment results in a failure to demonstrate an interaction of social variables with the treatment processes.

Similarly, the relation of social class variables to treatment variables in the Hollingshead and Redlich studies may raflect their data selection, which was over the broad range of all community facilities and all treatment periods. Within institutions, however, these social factors appear less determining of treatment variables, seemingly overpowered by intramural administrative or financial necessities. In the earlier Hillside Hospital studies ( ) the relation of

of age, F score, and education to the treatment variables in a reflection of the broad administrative latitudes available in patient care at that time. Treatments were broadly defined with somatic, milieu and psychotherapeutic modes equally available. Duration of hospitalization was broadly defined as up to 1 year, or longer if requested. Admission policy was flexible and both sought and permitted the admission of patients with a wide range of psychiatric disorders.

The present MH study shows fewer social-treatment relationships than the 1957 study, reflecting perhaps a constriction in availability of treatment choices, in population and a uniform extension of duration of hospitalization. This process, instituted contemporaneously with a new administration, is clearly marked as creating a closer similarity with the MFH model. Such administrative discussions are seen as prinicpal determinants of the emergence or dissolution of social variables, as factors in the treatment process.

A second aspect of these studies was the methodological problems in defining the treatment variables. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. Our difficulties in arriving at comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The frequent use of discharge ratings,

diagnostic classes or length of hospitalization as criteria of therapeutic values or comparability of subjects and populations are subject to excessive error unless the institutions are clearly matched for administrative patterns. The paradoxical nature of a failure to account for this variable is to be seen in a literal interpretation of the observation of this study. The MFH has the most highly traimd personnel conducting treatment which is applied for individually defined, optimal periods of time; in populations with the least proportion diagnosed in an unfavorable prognostic group (schizophrenia) -- and yet, the proportion of favorable treatment results is the poorest. At MMHC, in contrast, where the least trained therapiest apply treatments for an administratively limited period, to a population with a higher proportion diagnosed schizophrenia, the proportion of favorable discharge ratings is significantly greater! It is probable that these observations do not reflect the therapeutic efficacy of these institutions, but indicates differences in criteria of improvement.

This lack of clarity in diagnostic schemata and incomparibility of psychiatric treatment variables also lends pause to the attempted comparative studies of psychiatric therapies. For example, the rash of recent failures of biological scientists to confirm observations made in other laboratories may be as much a reflection of differences in

populations, psychiatric criteria, *etc.* as fallacies in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results (Bellak), most marked recently in the conflicting studies of a serum factor in schizophrenia, and the incomparability of the physiological -- behavioral correlations seen in the mecholyl (Funkenstein) and sedation threshold tasks. Even were a valid observation to be reported from one clinic, do we have' methods available to describe populations adequately to provide a sound confirmation? We believe not, and conclude from these observations that increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria, rather than the present methods which appear to be so highly dependent on institutional and observer attitudes, and the sociopsychological aspects of the therapist-patient interaction.

TABLE I

Conversion of Discharge Diagnoses

	Menninger Discharge Diagnoses	General Classification
1.	Depressive reaction Narcissistic Personality	Psychoneurosis
2.	Anxiety Reaction Narcissistic Personality	Psychoneurosis
3.	Narcissistic Personality	Personality Trait Disturbance
4.	Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5.	Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6.	Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

Comparative Ratings of Clinical Condition

At Time of Hospital Discharge

MENNINGER	HILLSIDE	MMHC
Social Adjustment	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
Character Structure	Unimproved	Slightly Improved
Improved		
Unimproved		Unimproved
Syndrome		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE IV

Intra-Hospital Analyses

Summary of Significant Relationships by Chi Square Analysis

	Selection of Treatment			Duration of Hospitalization			Discharge Evaluation			Diagnosis		
	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC
Age	.01	NS	NS	.001	.01	NS	NS	.01	NS	.001	.001	NS
Education	NS	NS	NS	.05	.001	NS	NS	NS	NS	NS	NS	NS
Social Class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
F Score	.01	.05	NS	NS	NS	NS	NS	NS	NS	NS	.01	NS
Diagnosis	.001	.001	.02	.001	.05	.01	NS	.05	NS			
Discharge Evaluation	.05	NS	NS	NS	NS	NS						
Duration of Hospitalization	NS	.01	.05									

TABLE V

Interinstitutional Difference in Selection of Treatment

Institution	N	Type of Treatment (per cent)		
		Psychotherapy only	Somatic	Other*
MFH	64	21	43	36
HH	173	36	64	0
MMHC	89	24	68	8

χ^2=82.8; df-4; p<.001.

* principally milieu therapies

TABLE VI

Interinstitutional Differences in Duration of Hospitalisation

(% of Subjects)

Institution	N	Months in Hospital		
		≤7	7-11	12 +
MFH	100	22	13	65
HK	173	27	42	31
MMHC	95	67	27	5

$\chi^2 = 90.6$; df=4; $p < .001$

TABLE VII

Interinstitutional Differences in Discharge Evaluation

Institution	N	Discharge Evaluation (per cent)		
		Recovered, and Much Improved	Improved	Unimproved
MFK	99	1	80	19
" HH	172	23	62	15
MMHC	88	28	61	10

χ^2=29.3; df=4; p<.001.

TABLE VIII

Interinstitutional Differences in Discharge Diagnosis

Institution	N	Diagnostic Categories (per cent)		
		Schizophrenia	Psychoneurosis and Personality Disorder	Affective
MFH	95	43	52	5
HH	171	52	26	22
MMHC	85	54	29	16

χ^2=23.84; df=4; p<.001.

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A Comparison of Sociopsychological Variables and Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

Aided, in part, by grant MY-2092 of the National Institute of Mental Health, U.S. Public Health Service; and the Nassau County Mental Health Board.

The cooperation of the staffs of the Massachusetts Mental Health Center and the C.F. Menninger Memorial Hospital is gratefully acknowledged.

* Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

VII: 3/62

In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered ( ). They indicated that proportionately more lower class patients in treatment were classified as psychotic while upper class patients were more often classified as neurotic and personality disorders. Regardless of diagnosis, psychotherapy was employed in disproportionately high degrees with the upper class patients, and organic therapies with lower class subjects.

The influence of patient economic status upon the availability of treating personnel could not ~~be~~ excluded in these studies. To test the role of social factors in the treatment of hospitalized patients independent of patient's finances, ~~and~~ where the availability of treatments was a patient survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

Total Population Study - not Sample

In that ~~sample~~ study, age, education and place of birth were significantly associated with choice of treatment, duration of hospitalization, clinical discharge evaluation and

diagnosis ( ). The clinical factors were also related to a measure of stereotypy, the California F Scale ( ). Higher F scores were more often found in patients diagnosed as involutional psychosis referred for somatic therapy and hospitalized for a shorter period ( ).

It was concluded that ~~the effects of~~ the relationships between social class, age, education, birthplace and degree of stereotypy on psychiatric treatment patterns were not ~~a result~~ simple reflectants of economic factors or availability of treatment alone. One suggestion was that social factors influenced diagnosis and treatment by affecting the verbal and non-verbal symptom patterns of patient behavior. It was postulated that subjects of lower social classes, lesser education and foreign birth would more frequently manifest symptoms in non-verbal, sensory or motor patterns and would expect physical modes of therapy. Upper class subjects would utilize verbal means of expression, and anticipate psychological forms of treatment.

A second interpretation related psychiatric treatment to the philosophies and attitudes of individual psychiatrists and hospital staff attitudes. In institutions where psychotherapy was highly valued, upper class patients would be treated disproportionately with psychotherapy. Similarly, discharge evaluations and duration of hospitalization would be affected by differences in staff expectations for individuals of differing social class.

To test this second hypothesis we decided to repeat the 1957 Hillside (HH) study employing the same procedures and concurrently to extend the observations to two other institutions, the C.F. Menninger Memorial Hospital of Topeka (MFH) and the Massachusetts Mental Health Center of Boston (MMHC). These institutions were selected in the expectation that they serve patients of differing social classes and that differences in this dimension would be reflected in the treatment variables. In these hospitals there is a similarity in attitude towards treatment and education. Each is a teaching hospital with a full time supervisory staff and active research department. They emphasize psychoanalytically-oriented psychotherapy but provide other treatments including somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients, does not provide custodial care and tends to draw its patient population from similar age groups.

The specific aims of this study were to determine population differences between the three institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

METHOD

All voluntary, adult patients in residence in these institutions on a given date in January 1959 were studied. While MFH and HH had voluntary patients only, a small number of those at MMHC were assigned by the courts for psychiatric evaluation, or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. The study population consisted of 173 patients at HH, 100 at MFH and 95 at MMHC. Each patient was given the California F scale ( ) on the designated date. Eighteen months later the ~~patients~~ discharged patients' records were analyzed to determine the various social and psychiatric factors of the study. For a measure ~~the determination~~ of social class, the Hollingshead 2-factor index was used ( ). The study included examination of the relations of the social to the psychiatric variables within each institution, as well as between institutions.

Discussion rather than Method.

These comparisons proved difficult because of differences in the definition of the psychiatric variables, the variables ranged widely and comparable cut-off criteria could not be determined, and varying degrees of missing data. For example, to compare institutions in relation to length of hsopital stay, various cut-off periods were tried but none allowed for comparable distributions. At MFH, one quarter of the patients remained fewer than seven months, and two-thirds

more than twelve months. At MMHC, in contrast, 70% of all patients remained less than seven months, and only 6% more than twelve months. In determining social class there was information available for 292 of 371 patients. Unclassifiable cases occurred where the education of the husband of a housewife or the father of a minor was not recorded.

According, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions, with citation of relevant intra-institutional relationships.

RESULTS

1. Methodological Aspects

When reporting studies from a home institution, the structure of the hospital is taken for granted, and either ignored or mentioned briefly. However, in studying a ~~strange~~ new institution and attempting to gather comparable data one is made aware of the many differences between institutions. The hospital organization as a determinant of treatment is one methodologic problem. For example, both the MMHC and MFH have day hospital units, while HH does not. At MMHC the treating physician can care for a patient as an in-patient, in the day hospital, and in the after-care clinic. In such a setting, he can feel free to discharge the patient from the hospital at an earlier date, knowing that he will still be responsible for his patient's care; whereas at HH, discharge means termination of that patient-doctor relationship.

Another problem was the presence of different research programs, affecting clinical routines. At the time of the survey, approximately twenty percent of the patients at MMHC were chronically ill and had been hospitalized for many years. Such a group would not normally have been in this hospital but they had been transferred from another state institution for a special study.

Thus, the very factors we were interested in studying

diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both HH and MMHC followed unitary systems. Several examples of diagnoses from MFH are listed in Table I, with our suggested conversions into categories comparable to the other two institutions. These conversions provide, however, an unavoidable source of distortion. (Similar observations have been reported by Pasamanick and his associates ( ) who indicate that diagnoses within the same institution are also vulnerable to individual differences among examiners.)

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement varied in format and detail. The discharge rating at MFH was tripartite with a separate evaluation for social, characterological and syndrome changes. HH and MMHC had global ratings in which it was difficult to assess the contribution of each factor of the MFH system (Table II). For this study the MFH syndrome rating was compared to the global ratings of HH and MMHC.

Table II

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2. Sociopsychological Variables

a) Social Class: There was a marked difference in the social class composition of the three institutions (Table III). At MFH the population was predominantly upper class; at HH middle class; and at MMHC, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients at MFH having more years of education than those at MMHC. While 41 per cent of the patients at MMHC failed to complete high school, only 32 per cent at HH and 23 per cent at MFH did not graduate.

d) F Score: Differences in the distribution of scores on the California F Scale were observed. Fifth-one per cent of MFH patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at MMHC twenty per cent were below 30 on the F Scale, and forty-two per cent had scores of 50 or more. At HH ~~fifty per cent~~ thirty-one per cent of the patients had F scores ~~in the middle range between 30 and 49~~. below 30 and eighteen per cent had scores above 50.

3. Psychiatric Variables

Intra-institutional comparisons are consolidated in Table IV, while inter-institutional comparisons are presented individually in each section. In Table IV, milieu and psychotherapies were combined, permitting a contrast of somatic and

at HH and MMHC. Somatic treatment was selected for patients classified as schizophrenia and affective disorder more often than those classed as psychoneurotic at each hospital. At MFH, patients receiving somatic treatment (predominantly those classed as schizophrenia) received discharge ratings of unimproved more often than patients receiving psychotherapy alone.

b) Duration of Hospitalization: The three institutions differed with respect to patient's length of stay (Table VI). MFH patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the HH patients and only 5 per cent of those at MMHC. The modal stay of the HH group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalization. Social class and F score were not related to duration at any institution. Of the psychiatric variables, only diagnosis could be related - those diagnosed as schizophrenia were hospitalized for longer periods at each institution. At every age level, those at MFH remained longer than at HH or MMHC. Indeed, the inter-institutional differences were so great that a patient in the oldest age group was more likely to be hospitalized for twleve months or more at MFH than were patients in the youngest age group at MMHC.

Within institutions, age and education at MFH and HH

were related to lenght of hospitalization -- younger and less educated patients remaining for the longest period

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Table VI about here

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c) Discharge Evaluation: In each hospital, most patients are evaluated at the time of discharge as "improved" (Table VII). At MFH, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at MMHC.

Analyses within each institution showed variable results. At HH and MMHC there was a tendency for older patients to be rated better than younger ones, but the results are statistically significant only at HH. At MFH there was an opposite trend, with older patients more likely to be rated unimproved; but this did not achieve statistical significance.

Table VII

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d) Diagnosis: For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table VIII). The diagnostic proportions were similar for the HH and MMHC

populations, but the MFH patients were regarded as having fewer affective and schizophrenic disorders and a larger number of psychoneurotic or personality disorders.

Intrainstitutional analysis showed that at HH both age and F score were related to diagnosis; at MFH age alone of the social factors was related to diagnosis; while at MMHC none of the social variables were so related. Of the psychiatric variables, diagnosis was significantly related at each hospital to selection of treatment and duration of hospitalization; and only at HH to discharge evaluation.

Table VIII about here

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California F Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distribution of diagnoses and discharge evaluations. The differences in treatment variables between the institutions may result from many factors, including the social aspects highlighted in our initial studies. To define the role of social factors more clearly, we undertook the intra-institttional comparisons. From these analyses, the lack of consistent relationships lends doubt as to the role of patient social factors as principal determinants in treatment within these settings. It was anticipated that within each institution, patients of higher social class, lower F score and better education, would be treated preferentially by psychotherapy, classified as neurotic, remain for shorter periods and receive better discharge ratings. Within the institution, an irregular association between the variables was observed (Table IX). Within one institution, the MMHC, none of the social variables were related to any treatment variable; nor was social class statistically related to any treatment variable at either HH or MFH. Of a

possible 48 relationships between social and treatment variables, eleven are statistically significant.

The differences in the HH and MFH data may be a reflection of their populaltion differences: the relation of age to discharge evaluation, and F_{1}^{Scale} score to diagnosis at HH reflecting the higher proportion of depressive illnesses; while the relation of age to treatment selection at MFH reflecting their higher proportion of young persons classified psychoneurosis and character disorder. The similarities in HH and MFH data may reflect similar treatment philosophies, which are different from that at MMHC. Conditions of elective treatment and elective duration of hospitalization exist at HH and MFH, and it may be this flexibility that permits the interaction of the social variables. At MMHC, however, the limited stay and need for rapid treatment results in a failure to demonstrate an interaction of social variables with the treatment processes.

Similarly, the relation of social class variables to treatment variables in the Hollingshead and Redlich studies may raflect their data selection, which was over the broad range of all community facilities and all treatment periods. Within institutions, however, these social factors appear less determining of treatment variables, seemingly overpowered by intramural administrative or financial necessities. In the earlier Hillside Hospital studies ( ) the relation of

of age, F score, and education to the treatment variables in a reflection of the broad administrative latitudes available in patient care at that time. Treatments were broadly defined with somatic, milieu and psychotherapeutic modes equally available. Duration of hospitalization was broadly defined as up to 1 year, or longer if requested. Admission policy was flexible and both sought and permitted the admission of patients with a wide range of psychiatric disorders.

The present HH study shows fewer social-treatment relationships than the 1957 study, reflecting perhaps a construction in availability of treatment choices, in population and a uniform extension of duration of hospitalization. This process, instituted contemporaneously with a new administration, is clearly marked as creating a closer similarity with the MFH model. Such administrative discussions are seen as principal determinants of the emergence or dissolution of social variables, as factors in the treatment process.

A second aspect of these studies was the methodological problems in defining the treatment variables. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. Our difficulties in arriving at comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The frequent use of discharge ratings,

diagnostic classes, or length of hospitalization as criteria of therapeutic values or comparability of subjects and populations are subject to excessive error unless the institutions are clearly matched for administrative patterns. The paradoxical nature of a failure to account for this variable is to be seen in a literal interpretation of the observation of this study. The MFH has the most highly traimd personnel conducting treatment which is applied for individually defined, optimal periods of time; in populations with the least proportion diagnosed in an unfavorable prognostic group (schizophrenia) -- and yet, the proportion of favorable treatment results is the poorest. At MMHC, in contrast, where the least trained therapiest apply treatments for an administratively limited period, to a population with a higher proportion diagnosed schizophrenia, the proportion of favorable discharge ratings is significantly greater! It is probable that these observations do not reflect the therapeutic efficacy of these institutions, but indicates differences in criteria of improvement.

This lack of clarity in diagnostic schemata and incomparibility of psychiatric treatment variables also lends pause to the attempted comparative studies of psychiatric theranies. For example, the rash of recent failures of biological scientists to confirm observations made in other laboratories may be as much a reflection of differences in

populations, psychiatric criteria, etc. as fallacies in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results (Bellak), most marked recently in the conflicting studies of a serum factor in schizophrenia, and the incomparability of the physiological -- behavioral correlations seen in the mecholyl (Funkenstein) and sedation threshold tasks. Even were a valid observation to be reported from one clinic, do we have' methods available to describe populations adequately to provide a sound confirmation? We believe not, and conclude from these observations that increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria, rather than the present methods which appear to be so highly dependent on institutional and observer attitudes, and the sociopsychological aspects of the therapist-patient interaction.

Excellent!

TABLE I

Conversion of Discharge Diagnoses

	Menninger Discharge Diagnoses	General Classification
1.	Depressive reaction Narcissistic Personality	Psychoneurosis
2.	Anxiety Reaction Narcissistic Personality	Psychoneurosis
3.	Narcissistic Personality	Personality Trait Disturbance
4.	Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5.	Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6.	Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE XI

Comparative Ratings of Clinical Condition

At Time of Hospital Discharge

MENNINGER	HILLSIDE	MMHC
Social Adjustment	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
Character Structure	Unimproved	Slightly Improved
Improved		
Unimproved		Unimproved
Syndrome		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE III

Interinstitutional Comparisons for Sociopsychological Variables*

		MPH	HH	MNHC	
Social Class	1.	31%	7%	3%	χ^2=121.5 df=8 p<.001
	2.	51	20	28	
	3.	17	34	13	
	4.	1	34	29	
	5.	0	5	28	
Age	<20	19%	19%	15%	χ^2=3.9 df=4 p=n.s.
	20-39	59	58	53	
	40 +	22	23	33	
Years of Education	<12	23%	32%	41%	χ^2=9.7 df=4 p<.05
	12-15	54	51	49	
	16 +	23	17	10	
F Score	10-29	51%	33%	20%	χ^2=39.2 df=4 p<.001
	30-49	41	50	38	
	50-70	8	18	42	

* While percentages are presented here, Chi square analyses were done on observed values.

TABLE IV

Intra-Hospital Analyses

Summary of Significant Relationshps by Chi Square Analysis

	Selection of Treatment			Duration of Hospitalization			Discharge Evaluation			Diagnosis		
	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC
Age	.01	NS	NS	.001	.01	NS	NS	.01	NS	.001	.001	NS
Education	NS	NS	NS	.05	.001	NS	NS	NS	NS	NS	NS	NS
Social Class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
F Score	.01	.05	NS	NS	NS	NS	NS	NS	NS	NS	.01	NS
Diagnosis	.001	.001	.02	.001	.05	.01	NS	.05	NS			
Discharge Evaluation	.05	NS	NS	NS	NS	NS						
Duration of Hospitalization	NS	.01	.05									

TABLE V

Interinstitutional Difference in Selection of Treatment

Institution	N	Type of Treatment (per cent)		
		Psychotherapy only	Somatic	Other*
MPH	64	21	43	36
MH	173	36	64	0
MMHC	89	24	68	8

χ^2=82.8; df-4; p<.001.

* principally milieu therapies

TABLE VI

Interinstitutional Differences in Duration of Hospitalisation

(% of Subjects)

Institution	N	Months in Hospital		
		≤7	7-11	12 +
MPH	100	22	13	65
HE	173	27	42	31
MDHC	95	67	27	5

$\chi^2 = 90.6$; df=4; $p < .001$

TABLE VII

Interinstitutional Differences in Discharge Evaluation

Institution	N	Discharge Evaluation (per cent) Recovered, and Much Improved	Improved	Unimproved
MFH	99	1	80	19
HH	172	23	62	15
MMHC	88	28	61	10

χ^2=29.3; df=4; p<.001.

TABLE VIII

Interinstitutional Differences in Discharge Diagnosis

Institution	N	Diagnostic Categories (per cent)		
		Schizophrenia	Psychoneurosis and Personality Disorder	Affective
MFH	95	43	52	5
EH	171	52	26	22
MDHC	85	54	29	16

χ^2=23.84; df=4; p<.002.

Table IX

Significant Intra-Institutional Relationships by

Chi Square

	HH	MFH
Age - Treatment Selection		**
" - Duration of Hospitalization	**	***
" - Diagnosis	***	***
" - Discharge Evaluation	**	
Education - Duration of Hospitalization	***	*
F Score - Treatment Selection	*	**
" - Diagnosis	**	

NB: No relationship significant for Social Class nor at MMHC.

* $p < .05$

** $p < .01$

*** $p < .001$

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TABLE I

CONVERSION OF DISCHARGE DIAGNOSES

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1. Depressive reaction Narcissistic Personality	Psychoneurosis
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4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5. Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6. Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE

COMPARATIVE

RATINGS OF CLINICAL CONDITION AT TIME

OF HOSPITAL DISCHARGE

Menninger	Hillside	MMHC
SOCIAL ADJUSTMENT	Recovered	Recovered
Improved	Much Improved	Markedly Improved
Unimproved	Improved	Moderately Improved
CHARACTER STRUCTURE	Unimproved	Slightly Improved
Improved		
Unimproved		Unimproved
SYNDROME		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE

Interinstitutional Difference in Selection of Treatment

Institution	N	Type of Treatment (Per cent)		
		Psychotherapy only	Somatic	Other
MPH	64	21	43	36
HH	173	36	64	0
MMHC	89	24	68	8

$x^2 = 82.8$

$df = 4$

$p = .001$

TABLE

Interinstitutional Differences in Duration of Hospitalisation

(% of Subjects)

Institution	N	Months in Hospital		
		≤ 7	7-11	12 +
MFH	100	22	13	65
HH	173	27	42	31
MMHC	95	67	27	5

X^2 =90.6

df =4

p <.001

TABLE

Interinstitutional Differences in Discharge Diagnosis

Institution	N	Diagnostic Categories (Per cent)		
		Schizophrenia	Psychoneurosis and Personality Disorder	Affective
MFH	95	43	52	5
HH	171	52	26	22
MMHC	85	54	29	16

$X^2 = 23.84$

$df = 4$

$p < .001$

TABLE X

Interinstitutional Differences in Discharge Evaluation

Institution	N	Discharge Evaluation (Per cent)		
		Recovered, and Much Improved	Improved	Unimproved
MFH	99	1	80	19
KH	172	23	62	15
MMHC	88	28	61	10

$x^2 = 29.3$

$df = 4$

$p < .001$

TABLE ___

Intra-Hospital Analyses

Chi Square Summary

	Selection of Treatment			Duration of Hospitalization			Discharge Evaluation			Diagnosis		
	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC	MFH	H.H.	MMHC
Age	.01	NS	NS	.001	.01	NS	NS	.01	NS	.001	.001	NS
Education	NS	NS	NS	.05	.001	NS	NS	NS	NS	NS	NS	NS
Social Class	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
F score	.01	.05	NS	NS	NS	NS	NS	NS	NS	NS	.01	NS
Diagnosis	.001	.001	.02	.001	.05	.01	NS	.05	NS			
Disch. Eval.	.05	NS	NS	NS	NS	NS						
Dur. of Hosp.	NS	.01	.05									

2

Sociopsychological Features of Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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The cooperation of the staffs of the Massachusetts Mental Health Center and the C.F. Menninger Memorial Hospital is gratefully adknowledged.

*Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

~~VIII: 4/62~~

IX : 4/62

Community studies such as that of Hollingshead and Redlich (4) at the Midtown study (8) have demonstrated a relationship between social factors and psychiatric treatment.

In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered (4). To test the role of social factors in the treatment of hospitalized patients independent of patient's finances and availability of treatments, a patient survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

In the Hillside study, (5, 6) it was observed that patients hospitalized for the shortest period were the oldest, had the least education and were most likely to have been foreign born. They were predominantly treated by convulsive therapy and received the more favorable discharge ratings. Younger, native born and more educated patients were hospitalized the longest, treated primarily by psychotherapy and generally received the poorer discharge ratings. The clinical factors were also related to a measure of stereotypy, the California F Scale (1). Higher F scores, i.e., greater stereotypy, ~~were more often found in patients diagnosed as involutional psychosis,~~ referred for somatic therapy, and hospitalized for a shorter period, and more often were rated as much improved or recovered.

* misleading — Patients with E.U. had

F Scores — the sentence is incorrect — well young patients with high more often rated as improved > kept a short time -

At this time we developed the additional hypothesis that differences in psychiatric treatment between hospitals should show the same relationship to social factors as noted within institutions. To test this hypothesis and in order to replicate our original findings it was decided to repeat the 1957 Hillside study employing the same procedures, and concurrently to extend the observations to two other institutions, the C.F. Menninger Memorial Hospital of Topeka and the Massachusetts Mental Health Center of Boston. These institutions were selected as serving patients of different social classes with the expectation that differences in this dimension would be reflected in the treatment variables comparable to the relationship of social and psychiatric factors noted in the initial Hillside study. It was anticipated that in these hospitals there was a similarity in attitude towards treatment and education. Each is a teaching hospital with a full time supervisory staff and active research department. They emphasize psychoanalytically-oriented psychotherapy but provide other treatments including somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients, does not provide custodial care and tends to draw its patients population from similar age groups.

The specific aims of this study, then, were to determine the population characteristics of the three institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

was this done - there is no evidence of replication!

METHOD

A census of all voluntary, adult patients in residence in these institutions was undertaken in January 1959. While Menninger and Hillside

Hospitals had voluntary patients only, a small number of those at the Massachusetts Mental Health Center (MMHC) were assigned by the courts for psychiatric evaluation, or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. Each patient was given the California F scale on the census day. Eighteen months later the records of discharged patients were analyzed to determine the social and psychiatric factors of the study. For a measure of social class, the Hollingshead 2-factor index was used (3). The study population consisted of 173 patients at Hillside, 100 at Menninger and 95 at the Massachusetts Mental Health Center.

The study included examination of the relations of the social to the psychiatric variables within each institution, as well as between institutions. These comparisons were different, however, because of various methodological differences discussed below. These difficulties were most marked in the intrahospital comparisons, and accordingly, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions, with citation of intra-institutional trends.

RESULTS

A. Inter-hospital Comparisons

1. Methodological Problems

When reporting studies from a home institution, the structure of the hospital is taken for granted, and either ignored or mentioned briefly. However, in studying a strange institution and attempting to gather comparable data one is made aware of the many differences

between institutions. While we selected these institutions as comparable in teaching, research, and treatment programs, we found that they were unlike structurally in ways which influenced the data of the study. Specific problems were noted in designations of type of treatment, diagnostic terms and evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At Menninger Hospital psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At Hillside Hospital psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians. No additional fees were charged.

At the Massachusetts Mental Health Center psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy, it was necessary for members of the study team to interview the residents in charge of each case.

b) Diagnosis: Individual institutional diagnostic styles also made comparisons difficult. At Menninger Hospital diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both Hillside and MMHC followed unitary systems. Several examples of diagnoses from Menninger are listed in Table I, with our suggested conversions into categories comparable to that of the other two institutions. These conversions provide an inevitable source of distortion.

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement at the three hospitals also varied in format and detail. The discharge rating at Menninger Hospital was tripartite with a separate evaluation for social, characterological and syndrome changes. Hillside Hospital and Massachusetts Mental Health Center had global ratings in which it was difficult to assess the contribution of each factor of the Menninger system (Table II). For this study the Menninger syndrome rating was compared to the global ratings of the other institutions.

Table II

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2. Sociopsychological Variables

The distribution of the variables of social class, age, education

and California F Scale score among the three institutions is presented in Table III.

a) Social Class: There was a marked difference in the social class composition of the three institutions. At Menninger Hospital the population was predominantly upper class; at Hillside Hospital middle class; and at Massachusetts Mental Health Center, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients at Menninger Hospital having more years of education than those at Massachusetts Mental Health Center. While 41 per cent of the patients at MMHC had not completed high school, only 32 per cent at Hillside and 23 per cent at Menninger did not graduate. (Same were to) young?

d) F Score: Significant differences in the distribution of scores on the California F Scale were observed. Fifty-one per cent of Menninger patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at Hillside thirty-one per cent of the patients had F scores below 30 while at Boston only twenty per cent were below 30.

Thus, the anticipated differences in the social class of the populations were observed, as well as significant differences in educational attainment and performance on the F Scale. These differences thus permit testing the hypothesis on the relation of sociopsychological

See note pg 4 - bottom

that slightly over half diagnosed as schizophrenic and approximately one-quarter as psychoneurosis or affective disorder. In contrast at Menninger Hospital, psychoneurosis and personality disorder accounted for over fifty per cent of the population.

B. Intra-hospital Comparisons

1. Methodological Problems

Various methodological problems were also seen in the intra-hospital statistical comparisons. Most prominent was the lack of meaningful statistical cut-off criteria for the subdivision of populations, due to the homogeneity of population within each institution. Almost any analysis when applied to a single institution would yield several cells having zero, one or two cases.

2. Intra-hospital Comparison

Within this methodological limitations, the same trends as found in the earlier study were observed, although only a limited number of the intra-hospital comparisons were of statistical significance. With regard to selection of treatment, for example, age and F score were significantly related at Menninger Hospital (older and higher F Score patients more frequently receiving somatic therapy), F Score was related to treatment selection at Hillside, and age at the MMHC.

In discharge evaluation, there was a tendency for older patients to be rated better than younger ones at Hillside and Boston.

compare this bottom page 2

where is the data? Where is the replication of H.H. - why not present a table of H.H. 1957 and H.H. 1958 - side by side if this is a replication study

data!

Length of hospitalization and the factors of age and education were related at both the Menninger and Hillside Hospitals - the younger and less educated patients remaining for the longest period. While such relationships are statistically significant in these two hospitals, a similar trend is noted in Boston (Table V) where no patients over 40, but 14% of patients under age 20 remain longer than a year.

Table V

Discussion

Comparison of the patterns of psychiatric treatment and results in three hospitals has demonstrated marked differences in terms of the social class composition of the patient populations. The higher the social class level of the institution, the greater the probability that patients will not receive somatic therapy, be hospitalized for longer periods, be diagnosed as psychoneurosis or character disorder rather than affective disorder, and be least likely to be rated as recovered or much improved on discharge.

There is certainly evidence that these differences are related to institutional philosophy or style or language. The contrast between Menninger's and MMHC in the length of time that patients are hospitalized, for example, is so great, that it is not likely to be a reflection of differences in the type or quality of mental disorder. Distinctive philosophic differences were also noted for such administrative aspects as complexity of diagnostic formulation and discharge evaluation,

agree with MF
10 A

quality of record keeping and the definition of psychotherapy. But these stylistic differences cannot be dismissed as merely idiosyncratic, since they follow a pattern. This pattern is consistent with previous findings and hypotheses on the relation of social factors to psychiatric care of hospitalized patients, indicating that within institutions there are the same relationships as found between institutions. It follows, then, that the treatment philosophy of an institution is derived to a significant extent, from the social climate of the patient population; this may be partly in relation to the staff's preceptions, attitudes, identification, aspiration, etc., in regard to the patients, and partly a reflection of the different wishes and expectations and philosophy of the patients themselves in terms of their social background.

The importance of social factors in accounting for the differences between the institutions is all the more striking since each hospital is recognized as an outstanding teaching facility, each has a full time supervisory staff, and each emphasizes the same treatment philosophy of psychoanalytically-oriented psychotherapy.

These results make clear that much of our present psychiatric concepts in such areas as diagnosis or clinical evaluation have relatively little meaning when applied from one patient population to another. If these concepts were taken literally the results become extraordinarily paradoxical. For example, Menninger's has the most highly trained personnel conducting treatment, keeps it patients for the longest time

and has fewest patients diagnosed as schizophrenic. And yet, with all these resources and favorable factors, it has the poorest treatment results. At MMIC, in contrast, which is most inclusive in defining a therapist, which keeps patients for a very short time only, and which has a higher percentage of schizophrenics than Menninger's the treatment results are the best.

Obviously, this study does not touch on the relative therapeutic efficacy of the institutions. Our data furnishes no basis as to which hospital provides the better care, using independent criteria. Since the evaluations are based on the institution's own ratings, we believe that the differences reflect variations in criteria applied rather than in any intrinsic psychiatric characteristics. In our initial Hillside study (6) postulated that different criteria of improvement were utilized for persons of different social background. The basic hypothesis advanced was that the higher the person's social background the more complex the criteria employed. This has been literally confirmed in the present study, with Menninger's using a tripartite rating system compared to the global rating of the other two institutions. Even considering just the syndrome rating, on which our comparative statistical analysis were based, it is our contention that for lower class persons we are apt to use more primitive criteria of improvement such as the patient's capacity to resume work, while for upper class persons the criteria involve such complex intangibles as "developing insight," "working through his problems," etc.

methodological problems of classifying subjects by "objective" criteria, rather than the present methods which appear to be so highly dependent on institutional and observer attitudes, and the sociopsychological aspects of the therapist-patient interaction. It is our impression, that population and treatment variable relationships are interactive processes largely derived from the attitudes and expectations of the staff and authorities within each institution. Thus, duration of patient stay, discharge rating, type of treatment administered and diagnosis are determined as much by the attitude of the physician and the administrative staff, as any constellation of symptoms or history which he may present. Such relationships will be most marked in those psychiatric conditions where diagnostic criteria are least specific, i.e., where the objective criteria associated with diseases of known organic impairment are absent, as in schizophrenia, psychoneurosis, and personality and behavior disorders. Under conditions of ambiguity the observer's internal cues (attitudes, expectations) become the basis for perception and classification. This view was clearly demonstrated by Pasamanick, Dinitz and Lifton (7) in their study of variations in diagnosis within a single institution. They observed that patients randomly assigned to different wards did not differ in type of admission, marital status, education, age or residence. Significant differences did occur, however, in incidence of diagnoses among three wards, and among three administrators on one ward. As it is highly unlikely that these differences were inherent in the population, we believe they are largely reflections of the attitudes of the examiners.

Summary and Conclusions

1. A comparative study was undertaken in three different hospitals, similar in general treatment philosophy but differing in social class composition of their patient population, with regard to a number of social and psychiatric variables.

2. It was found that the psychiatric variables were significantly related to social factors, the pattern between institutions consistent with the relationships previously noted within institutions.

3. The variations in administrative and psychiatric procedures, which indicate differences in philosophy or style, are not regarded as being idiosyncratic since they follow a pattern consistent with social class differences.

4. At the same time these stylistic differences raise questions on the meaningfulness of comparing psychiatric data from one institution to another.

TABLE I

Redesignation of Discharge Diagnoses

Menninger Discharge Diagnoses	General Classification
1. Depressive reaction Narcissistic Personality	Psychoneurosis
2. Anxiety reaction Narcissistic Personality	Psychoneurosis
3. Narcissistic Personality	Personality Trait Disturbance
4. Narcissistic Personality Alcoholism Chronic Infantile Personality	Sociopathic Personality Disturbance
5. Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
6. Infantile Personality Schizophrenic Reaction Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

Comparative Ratings of Clinical Condition

At Time of Hospital Discharge

	MENNINGER HOSPITAL	HILLSIDE HOSPITAL	MASSACHUSETTS MENTAL HEALTH CENTER
Social Adjustment		Recovered	Recovered
	Improved	Much Improved	Markedly Improved
	Unimproved	Improved	Moderately Improved
Character Structure		Unimproved	Slightly Improved
	Improved		
	Unimproved		Unimproved
Syndrome			
	Complete Remission		
	Improved		
	Unchanged (or worse)		

TABLE III

Interhospital Comparisons for

Sociopsychological Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center	
Social Class	1.	31%	7%	3%	χ^2=121.5 df=8 p<.001
	2.	51	20	28	
	3.	17	34	13	
	4.	1	34	28	
	5.	0	5	28	
Age	<20	19%	19%	15%	χ^2=3.9 df=4 p-n.s.
	20-39	59	58	52	
	40 +	22	23	33	
Years of Education	<12	23%	32%	41%	χ^2=9.7 df=4 p<.05
	12-15	54	51	49	
	16 +	23	17	10	
F Score	10-29	51%	33%	20%	χ^2=39.2 df=4 p<.001
	30-49	41	50	38	
	50-70	8	17	42	

TABLE IV

Interhospital Differences in Treatment Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center
Type of Treatment	N	(64)	(173)	(89)
	Psychotherapy	21%	36%	24%
	Somatic	43	64	68
	Other	36	--	8

$X^2=82.8$; df=4; $p<.001$

Duration of Hospitalization	N	(100)	(173)	(95)
	7 months	22%	27%	67%
	7-11 months	13	42	27
	11 months	65	31	5

$X^2=90.6$; df=4; $p<.001$

Discharge Evaluation	N	(99)	(172)	(88)
	Recovered, Much Improved	1%	23%	28%
	Improved	80	62	61
	Unimproved	19	15	10

$X^2=29.3$; df=4; $p<.001$

Discharge Diagnosis	N	(95)	(171)	(85)
	Schizophrenia	43%	52%	54%
	Affective Psychosis	5	22	17
	Psychoneurosis and Personality Disorder	52	26	29

$X^2=23.8$; df=4; $p<.001$

TABLE V

HOSPITAL STAY BY AGE

PERCENTAGE OF AGE GROUP STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
20-29	73	36	6
30-39	61	30	6
40-49	30	20	0
50 +	36	0	0

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Sociopsychological Features of Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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*Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

VIII: 4/62

In previous sociopsychological studies of the Hillside Hospital population we observed that such aspects as age, education, place of birth and score on the California F Scale were significantly related to the treatment variables of selection of treatment, clinical diagnosis, duration of hospitalization and treatment evaluation. It was suggested at that time that the same influence of social variables on the treatment process would be observed among institutions. To test this suggestion as well as to replicate the study within institutions, the present study of three hospitals was undertaken.

In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered ( ). The influence of patient economic status upon the availability of treating personnel

was not excluded in these studies. To test the role of social factors in the treatment of hospitalized patients independent of patient's finances and availability of treatments, a patient survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

In the Hillside study, age, education and place of birth were significantly associated with choice of treatment, duration of hospitalization, clinical discharge evaluation and diagnosis ( ). It was observed that patients hospitalized for the shortest period were the oldest, had the least education and were most likely to have been foreign born. They were predominantly treated by convulsive therapy and received the more favorable discharge ratings. Younger, native born and more educated patients were hospitalized the longest, treated primarily by psychotherapy and generally received the poorer discharge ratings. The clinical factors were also related to a measure of stereotypy, the California F Scale ( ). Higher F scores were more often found in patients diagnosed as involutional psychosis, referred for somatic therapy, and hospitalized for a shorter period, and more often were rated as much improved or recovered.

It was decided to repeat the 1957 Hillside study employing the same procedures and concurrently to extend the observations

institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

METHOD

A census of all voluntary, adult patients in residence in these institutions was undertaken in January 1959. While Menninger and Hillside Hospitals had wduntary patients only, a small number of those at Boston were assigned by the courts for psychiatric avaluation, or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. Each patient was given the California F scale ( ) on the census day. Eighteen months later the records of discharged patients were analyzed to determine the social and psychiatric factors of the study. For a measure of social class, the Hollingshead

2-factor index was used ( ). The study population consisted of 173 patients at Hillside, 100 at Menninger and 95 at Massachusetts Mental Health Center (MMHC).

The study included examination of the relations of the social to the psychiatric variables within each institution, as well as between institutions. These comparisons were difficult, however, because of variousmethodological differences discussed below. These difficulties were most marked in the intrahospital comparisons, and accordingly, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions, with citation of the intra-institutional trends.

RESULTS

A. Inter-hospital Comparisons

1. Methodological Problems

When reporting studies from a home institution, the structure of the hospital is taken for granted, and either ignored or mentioned briefly. However, in studying a strange

institution and attempting to gather comparable data one is made aware of the many differences between institutions. While we selected these institutions as comparable in teaching, research, and treatment programs, we find that they are unalike structurally in ways which influence the data of the study. Specific problems were noted in designations of type of treatment, diagnostic terms and evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At Menninger Hospital psychotherapy was designated as a treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At Hillside Hospital psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians.

At the Massachusetts Mental Health Center psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy, it was necessary for members of this study team to interview the residents in charge of each case.

b) Diagnosis: Individual institutional diagnostic styles also made comparisons difficult. At Menninger Hospital diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both Hillside and Boston followed unitary systems. Several examples of diagnoses from Menninger are listed in Table I,

with our suggested conversions into categories comparable to that of the other two institutions. These conversions are an unavoidable source of distortion. (Similar observations have been reported by Pasamanick and his associates ( ) who indicate that diagnoses within the same institution are also vulnerable to individual differences among examiners).

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement varied in format and detail. The discharge rating at Menninger Hospital was tripartite with a separate evaluation for social characterological and syndrome changes. Hillside Hospital and Massachusetts Mental Health Center had global ratings ~~of~~ in which it was difficult to assess the contribution of each factor of the Menninger system (Table II). For this study the Menninger syndrome rating was compared to the global ratings of the other institutions.

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2. Sociopsychological Variables

The distribution of the variables of social class, age, education and California F Scale score among the three institutions is presented in Table III.

a) Social Class: There was a marked difference in the social class composition of the three institutions. At Menninger Hospital the population was predominantly upper class; at Hillside Hospital middle class; and at Massachusetts Mental Health Center, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients at Menninger Hospital having more years of education than those at Massachusetts Mental Health Center. While 41 per cent of the patients at MMHC

had not completed high school, only 32 per cent at Hillside and 23 per cent at Menninger did not graduate.

d) F Score: Differences in the distribution of scores on the California F Scale were observed. Fifty-one per cent of Menninger patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at Boston twenty per cent were below 30 on the F Scale, and forty-two per cent had scores of 50 or more. At Hillside thirty-one per cent of the patients had F scores below 30 and eighteen per cent above 50.

In summary, the anticipated differences in predominant social class of the population was observed as well as significant differences in educational attainment and performance on the F Scale. The age distribution did not differ. These differences thus permit the study of treatment variables among the institutions.

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	Psychoneurosis and Personality Disorder	52	26	29

$X^2=23.8$; df=4; $p<.001$

3. Psychiatric Treatment Variables

a) Selection of Treatment: Among institutions, fewer patients at Menninger Hospital received somatic therapy than at Hillside or MMHC, (Table IV). Concurrently a smaller percentage of the Menninger patients were classed as receiving psychotherapy, with a large number (36 per cent) receiving milieu forms of treatment. At Hillside Hospital - there was no special designation for milieu therapies and patients are classified as receiving psychotherapy as a primary treatment since each patient is scheduled to see a resident psychiatrist for at least three, one-half hour sessions per week. The percentage of patients receiving somatic therapy, at Menninger Hospital (34%) is significantly less than at either of the other two hospitals.

Among patients classed as schizophrenia, there was no difference among hospitals, for 70-80% of such patients at each hospital received somatic forms of treatment during

hospitalization. The differences among the institutions is based on the differing attitudes towards patients classified as psychoneurotic, behavior disorder and depressive psychosis.

b) Duration of Hospitalization: The three institutions differed with respect to patient's length of stay (Table IV). Menninger Hospital patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the Hillside patients and only 5 p;er cent of those at the Massachusetts Mental Health Center. The modal stay of the Hillside group was between seven and eleven months while two-thirds of the Boston patients were discharged within six months of hospitalization.

c) Discharge Evaluation: In each hospital, most patients are evaluated at the time of discharge as "improved" (Table IV). At Menninger Hospital, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient

was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at Boston.

d) Diagnosis: For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table IV). The diagnostic proportions of patients within these groups were similar for Hillside and Boston in that slightly over half diagnosed as schizophrenic and approximately one-quarter as psychoneurosis or affective disorder. In contrast at Menninger Hospital, psychoneurosis and personality disorder accounted for over fifty per cent of the population.

B. Intra-hospital Comparisons

1. Methodological Problems

Various methodological problems vitiated intra-hospital statistical comparisons. Most prominent was the lack of meaningful cut-off criteria for subdivision of populations.

For example, to compare institutions in relation to length of hospital stay, various cut-off periods were tried but none allowed for comparable distributions. At Menninger Hospital, one-quarter of the patients remained fewer than seven months, and two-thirds more than twelve months. At Massachusetts Mental Health Center, in contrast, 70% of all patients remained less than seven months, and only 6% more than twelve months.

Another aspect was the constriction of heterogeneity of the population sample. In the Boston group, the special research patients and the court referrals were both deleted. In contrasting the 1957 and 1959 Hillside population, we observed a significant decrease in the number of older patients, the use of convulsive therapy and an increase in the number of patients under the age of 20, The comparability of age groups in the three hospitals in this study makes it likely that similar processes may have occurred in the present Boston and Menninger populations, thus decreasing the range

of the diagnostic, treatment and educational variables.

In addition, missing information in social class determinationwas a factor in vitiating intra-hospital comparisons with this variable.

In determining social class there was information available for 292 of 371 patients. Unclassifiable cases occurred where the education of the husband af a housewife or the father of a minor was not recorded.

2. Intra-hospital Comparisosn

Within these methodological limitations, a number of the intra-hospital comparisons were of significance. With regard to selection of treatment, age and F score were significantly related at Menninger Hospital (older and higher F Score patients more frequently receiving somatic therapy) and F Score was related to treatment selection at Hillside.

In discharge evaluation, there was a tendency for older patients to be rated better than younger ones at Hillside and Boston; but at Menninger there was an opposite trend,

with older patients more likely to be rated unimproved.

Length of hospitalization and the factors of age and education were related at both the Menninger and Hillside Hospitals - the younger and less educated patients remining for the longest period. While such relationships are demonstrated in these two hospitals, a similar trend is noted in Boston (Table V) where no patients over 40, but 14% of patients under age 20 remain longer than a year. Similar relationships are noted for education, and for diagnosis. At Menninger Hospital the percentage of patients with the diagnosis of schizophrenia who were hospitalized over one year was 91%, at Hillside Hospital 35% and at Massachusetts Mental Health Center 7%.

Table V

TABLE V

HOSPITAL STAY BY AGE

PERCENTAGE OF AGE GROUP STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
20-29	73	36	6
30-39	61	30	6
40-49	30	20	0
50 +	36	0	0

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California F Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distributions of diagnoses and discharge evaluations. The expectation that the institution serving upper class patients would have the longest duration of stay; a higher proportion of psychoneurotic diagnoses and more complex diagnostic schemata; lower proportion of patients receiving organic forms of therapy; and poorest discharge ratings were each confirmed. Similarly, the institution serving lower class patients evinced shorter periods of hospitalization, low proportions of psychoneurotic diagnoses, and better discharge evaluations. In addition, the distributions of F Scale scores among the three hospitals followed the original Hillside study in that low scores were most characteristic of the upper class group, and high scores of the lower class.

In the attempt to further confirm the 1957 Hillside study by replication at Hillside in 1959, as well as intra-institutional analyses at the other two hospitals, we were unsuccessful. The data failed to achieve statistical significance, in part because of a variety of methodological problems, but the trends of the data are similar to the original study.

While these studies have again emphasized the role of social factors in psychiatric treatment, we have been most impressed by the methodological problems of studiesacross institutions. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. Our difficulties in arriving at comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The frequent use of discharge ratings, diagnostic classes or length of hospitalization as criteria in therapeutic evaluations or the identification of comparable populations are subject to excessive error unless the institutions are clearly matched for administrative patterns. The paradoxical nature of a failure to account for institutional idiosyncrasies is to be seen in a literal interpretation of the observation of this study. The Menninger Hospital has the most highly trained

personnel conducting treatment which is applied for individually defined, optimal periods of time; in populations with the least proportion diagnosed in an unfavorable prognostic group (schizophrenia) - - and yet, the proportion of reported favorable treatment results is the poorest. At Massachusetts Mental Health Center, in contrast, where the least trained therapists apply treatments for an administratively limited period, to a population with a higher proportion diagnosed as schizophrenia, the proportion of favorable ~~xxxxxx~~ discharge ratings is significantly greater! It is probable that these observations do not reflect the therapeutic efficacy of these institutions, but indicates differences in criteria of improvement.

This lack of clarity in diagnostic schemata and incomparibility of psychiatric treatment variables also lends pause to the attempted comparative studies of psychiatric therapies. For example, the rash of recent failures of

biological scientists to confirm observations made in other laboratories may be as much a reflection of differences in populations, psychiatric criteria, etc. as fallacies in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results (Bellak), most marked recently in the conflicting studies of a serum factor in schizophrenia, and the incomparability of the physiological -- behavioral correlations seen in the mecholyl (Funkenstein) and sedation threshold tasks. Even were a valid observation to be reported from one clinic, do we have methods available to describe populations adequately to provide a sound confirmation? We believe not, and conclude from these observations that increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria, rather than the present methods which appear to be so highly dependent on institutional

and observer attitudes, and the sociopsychological aspects of the therapist-patient interaction.

These studies also highlight the effects of changing populations on similar studies. The present Hillside Hospital study shows fewer sociopsychological-treatment relationships than the 1957, reflecting, we believe, a constriction in the types of treatment, and the age range of the patients. There was a significant reduction in the mean age, and an increase in mean educational level of the population, reflecting an increase in the number of adolescent and young adult patients. During the two year period, there was also a marked reduction in the use of convulsive therapy and an increase in the use of psychotropic drugs. Drug therapy was excluded as a treatment choice in the 1957 study, while it was the dominant somatic treatment of this study. At the time of the present study, it had both a greater staff acceptance and a different psychological meaning than convulsive therapy, and bearing, perhaps a different relationship to social variables. The availability of an effectivetherapy

(or vigorous test for classification) may minimze the influence of social class variables on treatment. Thus, Hollingshead and Redlich found no relation between social class and type of treatment for affective psychosis but they did for the schizophrenias. "This suggests that if, for a given disorder, there is a treatment available which is relatively effective, inexpensive and technically simple, class differences may be reduced, but not eliminated".

While these inter-hospital differences may be looked upon as institutional idiosyncrasies, the observed relationships between the treatment and the sociopsychological variables xxx did follow the predicted directions from the initial Hillside intra-hospital study. It is our impression, then, that population and treatment variable relationships are interactive processes largely derived from the attitudes and expectations of the staff and authorities within each institution. Thus, duration of patient stay, discharge rating, type of treatment administered and diagnosis are xx

determined as much by the attitude of the physician and the hospital milieu in which the patient finds himself, as any constellation of symptom or history which he may present. Such relationships will be most marked in those psychiatric conditions where diagnostic criteria are least specific, i.e., where the objective criteria associated with diseases of known organic impairment are absent, as in schisophrenia, psychoneurosis, and personality and behavior disorders. Under conditions of ambiguity the observer's internal cues (attitudes, expectations) become the basis for perception and classification ( ). This view was clearly demonstrated by Pasamanick, Dinitz and Lifton in their study of variations in diagnosis within a single institution. They observed that in patients randomly assigned to different words that populations did not differ in type of admission, marital status, education, age or residence. Significant differences did occur, however, in incidence of diagnoses among three

wards, and among three administrations in one ward.

As these differences were probably not inherent in the population, we suggest they are largely reflections of the attitudes of the examiners.

Sociopsychological Aspects of Psychiatric Treatment in Three Voluntary Hospitals

Robert L. Kahn, Ph.D.*, Max Pollack, Ph.D.

Nathaniel Siegel, Ph.D.

and

Max Fink, M.D.

From the Department of Experimental Psychiatry, Hillside Hospital, Glen Oaks, L.I., N.Y.

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The cooperation of the staffs of the Massachusetts Mental Health Center and the C.F. Menninger Memorial Hospital is gratefully acknowledged.

* Present Address: Division of Psychiatry, Montefiore Hospital, N.Y. 67, N.Y.

Recent community studies have demonstrated a relationship between social factors and psychiatric treatment. In their study of the New Haven psychiatric patient population, Hollingshead and Redlich reported significant relationships between an individual's position in the social class structure and the prevalence of treated illness, types of diagnosed disorders and kinds and duration of psychiatric treatment administered (3). The influence of patient economic status upon the availability of treating personnel, however, was not excluded in these studies. To test the role of social factors in the treatment of hospitalized patients independent of patient's finances and availability of treatments, a survey was undertaken at Hillside Hospital in 1957. In this hospital, a variety of treatment modes, including individual psychotherapy and organic therapies are available to all patients regardless of their ability to pay.

In the Hillside studies (4,5) it was observed that patients hospitalized for the shortest period were the oldest, had the least education and were most likely to have been foreign born. The older, less educated patients were predominantly treated by convulsive therapy and received the more favorable discharge ratings. Younger, native born and more educated patients were hospitalized the longest, treated primarily by psychotherapy and generally received the poorer discharge ratings. The clinical factors were also related to a measure of stereotypy, the California F Scale (1,6). Higher F scores, i.e., greater stereotypy, were often found in patients

diagnosed as involutional psychosis who were referred for somatic therapy, hospitalized for a shorter period, and more often were rated as much improved or recovered.

Another hypothesis developed at this time was that differences in various aspects of psychiatric treatment among hospitals should show the same relationship to social factors as noted within Hillside Hospital. To test this suggestion it was decided to employ the procedures of the 1957 Hillside study in three institutions -- Hillside Hospital, the C.F. Menninger Memorial Hospital of Topeka and the Massachusetts Mental Health Center of Boston. These institutions were selected with the expectation that they served patients of different social classes. It was anticipated that in these hospitals there would be a similarity in attitude towards treatment and education. Each is a teaching hospital with a full time supervisory staff and active research departments. They emphasize psychoanalytically-oriented psychotherapy but provide other treatments such as somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients and does not provide custodial care.

The specific aims of this study were to determine the population characteristics of the three institutions with respect to social class, age, education and F score; and to relate these characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation among the institutions.

METHOD

A census of all voluntary, adult patients in residence in these institutions was undertaken in January, 1959. While Menninger and Hillside Hospitals had voluntary patients only, a small number of those at the Massachusetts Mental Health Center (MMHC) were assigned by the courts for psychiatric evaluation or were members of a chronic schizophrenic state hospital group transferred for a specific research project. These patients were excluded from the study because of their non-voluntary status. Each patient was given the California F scale on the census day. Eighteen months later the records of discharged patients were examined to determine the social and psychiatric factors of the study. For a measure of social class, the Hollingshead 2-factor index - a weighted score of education and occupation - was used (2). The study population consisted of 173 patients at Hillside, 100 at Menninger and 95 at the Massachusetts Mental Health Center.

The study included examination of the relations of the social to the psychiatric variables within each institution as well as between institutions. These comparisons were difficult however, because of various methodological differences discussed below. These difficulties were most marked in the intrahospital comparisons, and accordingly, in the analyses of psychiatric variables emphasis will be placed on the differences between institutions with citation of intrainstitutional trends. These difficulties also led to missing information for some data, which is reflected in the varying population sample sizes in the tables.

RESULTS

A. Inter-hospital Comparisons

1. Methodological Problems

When reporting studies from a home institution, the structure of the hospital is taken for granted and either ignored or mentioned briefly. However, in studying a strange institution and attempting to gather comparable data one is made aware of the many differences between institutions. While we selected these institutions as comparable in teaching, research and treatment programs, we found that they were unlike structurally in ways which influenced the data of the study. Specific problems were noted in the designation of type of treatment, diagnostic classes and the evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At Menninger Hospital psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At Hillside Hospital psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians. No additional fees were charged.

At the Massachusetts Mental Health Center psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy it was necessary for members of the study team to interview the resident in charge of each case.

b) Diagnosis: Individual institutional diagnostic styles made comparisons difficult. At Menninger Hospital diagnoses employed the multiple evaluative data scheme recommended by the American Psychiatric Association while both Hillside and MMHC followed unitary systems. Several examples of diagnoses from Menninger are listed in Table I, with our suggested conversions into categories comparable to that of the other two institutions. These conversions provide a source of distortion.

Table I

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c) Discharge Ratings of Improvement: Ratings of improvement at the three hospitals varied in format and detail. The discharge rating at Menninger Hospital was tripartite with a separate evaluation for social, characterological and syndrome changes. Hillside Hospital and Massachusetts Mental Health Center had global ratings making it difficult to assess the contribution of each factor of the Menninger system (Table II). For this study the Menninger syndrome

rating was compared to the global ratings of the other institutions.

Table II

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2. Sociopsychological Variables

The distribution of the variables of social class, age, education and California F Scale score among the three institutions is presented in Table III.

Table III

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a) Social Class: There was a marked difference in the social class composition of the three institutions. At Menninger Hospital the population was predominantly upper class; at Hillside Hospital, middle class; and at Massachusetts Mental Health Center, predominantly lower class.

b) Age: There were no differences in age distribution in the institutional populations.

c) Education: The populations differed in educational attainment, with patients having more years of education at Menninger Hospital than at Massachusetts Mental Health Center. While 41 per cent of the patients at MMHC had not completed high school, only 32 per cent at Hillside and 23 per cent at Menninger did not graduate.

d) F Score: Significant differences in the distribution of scores on the California F Scale were observed. Fifty-one per cent

of Menninger patients had F scores below 30, and only eight per cent with scores of 50 or above -- the higher F scores being associated with higher degrees of stereotypy. In contrast, at Hillside thirty-one per cent of the patients had F scores below 30 while at MMHC only twenty per cent were below 30.

Thus, the anticipated differences in the social class of the populations were observed, as well as significant differences in educational attainment and performance on the F Scale. These differences permit testing the hypothesis concerning the relation of sociopsychological factors to the treatment variables among the institutions.

3. Psychiatric Treatment Variables

a) Selection of Treatment: Among institutions, significantly fewer patients at Menninger Hospital (43%) received somatic therapy than at Hillside (64%) or MMHC (68%) as shown in Table IV.

b) Duration of Hospitalization: The three institutions differed markedly with respect to patient's length of stay (Table IV). Menninger Hospital patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the Hillside patients and only 5 per cent of those at the Massachusetts Mental Health Center. The modal stay of the Hillside group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalization.

c) Discharge Evaluation: In each hospital, most patients were evaluated at the time of discharge as "improved" (Table IV). At

Menninger Hospital, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at the Massachusetts Mental Health Center.

d) Diagnosis: For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table IV). The diagnostic proportions of patients within these groups were similar for Hillside and MMHC in that slightly over half were diagnosed as schizophrenia and approximately one-quarter as psychoneurosis or affective disorder. In contrast, at Menninger Hospital psychoneurosis and personality disorder accounted for more than fifty per cent of the population.

Table IV

B. Intra-Hospital Comparisons

1. Methodological Problems

The intra-hospital statistical comparisons were limited by a variety of methodological problems. Most prominent was the lack of meaningful statistical cut-off criteria for the subdivision of populations, in part due to the homogeneity of the population within each institution and to the sample size. In the statistical analyses within a single institution several cells were obtained which had

either none or fewer than five cases, thus not permitting a satisfactory intrahospital test of the hypothesis.

2. Intra-Hospital Comparison

With this methodological limitation some trends similar to that found in the earlier study were observed, although few were of statistical significance. With regard to selection of treatment, for example, age and F score were found related at Menninger Hospital (older and higher F score patients more frequently receiving somatic therapy), and F score alone at Hillside.

Length of hospitalization and chronological age were related at both the Menninger and Hillside Hospitals - the younger patients remaining for the longest period. While such relationships were significant in these two hospitals, a similar trend was noted at the MMHC (Table V) where no patients over 40, but 14% of patients under the age of 20 remained longer than a year.

Table V

DISCUSSION

In this comparison of three voluntary psychiatric hospitals we have observed significant interinstitutional differences of patients in the social variables of years of education and social class, but not age; in distribution of California F Scale scores; and in each of the treatment variables -- duration of hospitalization, selection of treatments and distributions of diagnoses and discharge evaluations. The expectation that the institution serving upper class patients would have the longest duration of stay, a higher proportion of psychoneurotic diagnoses and more complex diagnostic schemata, lower proportion of patients receiving organic forms of therapy, and poorest discharge ratings were each confirmed. Similarly, the institution serving lower class patients evinced shorter periods of hospitalization, low proportions of psychoneurotic diagnoses, and better discharge evaluations.

It is our impression that these differences in psychiatric treatment are more related to differences in staff attitudes than to differences in population samples. The contrasts between institutions in duration of hospitalization are great, as are the complexity of diagnostic formulations, discharge evaluations, definitions of psychotherapy, and the details and amount of recorded data. These stylistic differences cannot be dismissed as merely idiosyncratic since they follow a pattern related to social differences consistent with previous findings.

Such population and treatment variable relationships appear to be interactive processes, determined both by the attitude of the physician and the administrative staff as by the constellation of symptoms or history which a patient may present. Such relationships will be most marked in those psychiatric conditions where diagnostic criteria are least specific, i.e., where the objective criteria defining diseases of known organic impairment are absent, as in schizophrenia, psychoneurosis and personality and behavior disorders. Under conditions of perceptual or situational ambiguity the observer's attitudes and expectations become the basis for perception and classification. This view was clearly demonstrated by Pasamanick, Dinitz and Lefton (7) in their study of variations in diagnosis within a single institution. They observed that patients randomly assigned to different wards did not differ in type of admission, marital status, education, age or residence. Significant differences did occur, however, in diagnoses among the three wards and among three administrators on one ward. As it is highly unlikely that these differences were inherent in the population, we believe they are largely reflections of the attitudes of the examiners.

It is clear that many of the present psychiatric concepts of diagnosis or clinical evaluation have relatively little meaning when transferred from one institution to another. If these concepts are taken literally the results become paradoxical. For example, Menninger Hospital has the most highly trained personnel conducting treatment, keeps its patients for the longest time and has fewest

patients diagnosed as schizophrenia. And yet, despite these resources and favorable factors, it reports the poorest treatment results. At MMHC, in contrast, which is most inclusive in defining a therapist, which keeps patients for the shortest periods, and which has a higher proportion of the population classed as schizophrenia, the reported treatment results are the best.

It is probable that this study does not reflect the relative therapeutic efficacy of the institutions. Our data furnishes no independent criteria for determining which hospital provides the better care; nor for assessing the comparability of the population in the degree of illness. Since the evaluations are based on the institution's own ratings, we believe that the differences reflect variations in the criteria used for evaluation of improvement rather than any intrinsic psychiatric characteristics.

In our initial Hillside study (5) it was postulated that different criteria of improvement were utilized for persons of different social background. It was suggested that the higher the person's social background the more complex the criteria employed. This has been literally confirmed in the present study, with Menninger's using a tripartite rating compared to the global rating of the other two institutions. Even considering the syndrome rating on which our comparative statistical analysis were based, it is our contention that for lower class persons we are apt to assess improvement in relation to symptom relief or the patient's capacity to resume work, while for upper class persons the criteria stress such complex

intangibles as "developing insight", or "working through one's problems."

While these investigations have again demonstrated the role of social factors in psychiatric treatment, we have been considerably impressed by the methodological problems of studies across institutions. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. But the differences in institutional style making it difficult to obtain comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The use of discharge ratings, diagnostic classifications or length of hospitalization as criteria in therapeutic evaluations or the identification of comparable populations are subject to considerable error unless the institutions are clearly matched for social class patterns in patient population and for staff attitudes and style. These difficulties may also extend to the failures of scientists to confirm observations made in other laboratories, for the lack of confirmation may be as much a reflection of differences in populations and psychiatric criteria as to errors in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to a science burdened by negative results. Even were a valid observation to be reported from one laboratory, we do not have methods available to describe populations adequately to provide a sound confirmation.

Increased attention must be paid to the methodological problems of classifying subjects by "objective" criteria rather than the present methods which appear to be so highly dependent on institutional and observer attitudes and the sociopsychological aspects of the therapist-patient interaction.

SUMMARY and CONCLUSION

1. In three psychotherapeutic-oriented teaching hospitals, population characteristics were related to treatment variables. Populations were defined by social class, age, education and F score, and were related to type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

2. Significant interinstitutional differences were observed in characteristics of patient social class, years of education and distribution of California F scores, but not age.

3. The variations in treatment characteristics among institutions were found to be significantly different in the predicted direction.

4. These variations in psychiatric practices follow a pattern consistent with social class differences among institutions and are not regarded as being idiosyncratic.

5. The differences in institutional style make comparisons of diagnoses, duration of hospitalization, and treatment results between institutions difficult and tenuous, and the need for more objective criteria of classification of populations is emphasized.

REFERENCES

1. Adorno, T.W., Frenkel-Brunswik, E., Levinson, D.J. and Sanford, R.N.: The Authoritarian Personality, New York, Harper & Brothers, 1950.
2. Hollingshead, A.B.: Two-Factor Index of Social Position, mimeographed publication.
3. Hollingshead, A.B. and Redlich, F.C.: Social Class and Mental Illness: A Community Study, New York, John Wiley & Sons, Inc., 1958.
4. Kahn, R.L., Pollack, M. and Fink, M.: Social Factors in the Selection of Therapy in a Voluntary Mental Hospital, J. Hillside Hosp., 6: 216-228, 1957.
5. Kahn, R.L., Pollack, M. and Fink, M.: Sociopsychologic Aspects of Psychiatric Treatments in a Voluntary Mental Hospital: Duration of Hospitalization, Discharge Ratings and Diagnosis, Arch. Gen. Psychiat., 1: 565-574, 1959.
6. Kahn, R.L., Pollack, M. and Fink, M.: Social Attitude (California F Scale) and Convulsive Therapy, J. Nerv. & Ment. Dis., 130: 187-192, 1960.
7. Pasamanick, B., Dinitz, S. and Lefton, M.: Psychiatric Orientation and Its Relation to Diagnosis and Treatment in a Mental Hospital, Amer. J. Psychiat., 116: 127-132, 1959.

TABLE I

Redesignation of Discharge Diagnoses

Menninger Discharge Diagnoses	General Classification
Depressive reaction Narcissistic Personality	Psychoneurosis
Anxiety reaction Narcissistic Personality	Psychoneurosis
Narcissistic Personality	Personality Trait Disturbance
Narcissistic Personality Alcoholism, Chronic Infantile Personality	Sociopathic Personality Disturbance
Passive Aggressive Personality Alcoholism	Sociopathic Personality Disturbance
Infantile Personality Schizophrenic Reaction, Schizo-Affective Type	Schizophrenic Psychosis

TABLE II

Comparative Ratings of Clinical Condition

At Time of Hospital Discharge

MENNINGER HOSPITAL	HILLSIDE HOSPITAL	MASSACHUSETTS MENTAL HEALTH CENTER
Social Adjustment		
Improved	Recovered	Recovered
Unimproved	Much Improved	Markedly Improved
	Improved	Moderately Improved
Character Structure	Unimproved	Slightly Improved
Improved		Unimproved
Unimproved		
Syndrome		
Complete Remission		
Improved		
Unchanged (or worse)		

TABLE III

Interhospital Comparisons for Sociopsychological Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center
	N	(87)	(133)	(72)
Social Class	I	31%	7%	3%
	II	51	20	28
	III	17	34	13
	IV	1	34	28
	V	0	5	28
		χ^2=121.5; df=8: p<.001		
Age	N	(100)	(173)	(95)
	<20	19%	19%	15%
	20-39	59	58	52
	40 +	22	23	33
		χ^2=3.9; df=4; p=n.s.		
Years of Education	N	(100)	(173)	(91)
	<12	23%	32%	41%
	12-15	54	51	49
	16 +	23	17	10
		χ^2=9.7; df=4; p<.05		
F Score	N	(92)	(163)	(76)
	10-29	51%	33%	20%
	30-49	41	50	38
	50-70	8	17	42
		χ^2=39.2; df=4; p<.001		

TABLE IV

Interhospital Differences in Treatment Variables

		Menninger Hospital	Hillside Hospital	Massachusetts Mental Health Center
	N	(100)	(173)	(89)
Type of Treatment	Psychotherapy	21%	36%	24%
	Somatic	43	64	68
	Other	36	--	8
		$\chi^2=82.8$; df=4; $p<.001$		
	N	(100)	(173)	(95)
Duration of Hospitalization	<7 months	22%	27%	67%
	7-11 months	13	42	27
	>11 months	65	31	5
		$\chi^2=90.6$; df=4; $p<.001$		
	N	(99)	(172)	(88)
Discharge Evaluation	Recovered, Much Improved	1%	23%	28%
	Improved	80	62	61
	Unimproved	19	15	10
		$\chi^2=29.3$; df=4; $p<.001$		
	N	(95)	(171)	(85)
Discharge Diagnosis	Schizophrenia	43%	52%	54%
	Affective Psychosis	5	22	17
	Psychoneurosis and Personality Disorder	52	26	29
		$\chi^2=23.8$; df=4; $p<.001$		

TABLE V

Duration of Hospitalization By Age

PERCENTAGE OF AGE GROUP STAYING OVER ONE YEAR

Age	Menninger	Hillside	MMHC
Below 20	81	42	14
20-29	73	36	6
30-39	61	30	6
40-49	30	20	0
50 +	36	0	0

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TALLY SHEET

Condition at Discharge

Rx	Mech Dep. Recovered Col.23/1	Improved, Unch. Dep. Col.23/2	Unchanged, Slightly worse Col.23/3
Col.26/1 Probably.	16 16	36	10
2 Ext. Sch.	0	0	0
3 Drugs	0	0	0
4 1+2	1	2	0
5 1+3	16	57	13
6 2+3	0	0	0
7 1+2+3	7	11	3
8 None	0	0	0
9 Insulin	0	0	0
0 No. Rx.	0		
Reject			
TOTAL	40	106	26

Length of Hospitalization

Condition at Discharge	Col.29/1,2,3,4,5. ~7 mos.	Col.29/6,7. 9-11 mos.	Col.29/8,9. 12+ mos.
Col.23/1	17	14	9
2	22	45	39
3	7	14	5
4	0	0	0
0	0	1	0
Reject			
TOTAL	~~46~~	74	53

Length of hospitalization

Rx			
Col.26/1	22	30	11
2	~~0~~	0 ~~30~~	0 ~~53~~
3	0	0 ~~0~~	0 ~~11~~
4	2 ~~0~~	1 ~~0~~	0 ~~0~~
5	18	34 ~~1~~	34 ~~0~~
6	~~11~~ 0	0 ~~24~~	0 ~~0~~
7	~~4~~ 4	0 ~~0~~	8 ~~24~~
8	~~0~~ 0		0 ~~0~~
9	0	9	0 ~~8~~
0		~~9~~	0
Reject			
TOTAL	46	74 74	53 53

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TALLY SHEET

Condition at Dredo

	Col.23/1	Col.23/2	Col.23/3
Col.26/1	1	17	3
2	0	0	1
3	0	20	6
4	0	0	0
5	0	6	3
6	0	0	3
7	0	3	0
8	0	33	3
9	0	0	0
0	0	0	0
Reject			(1)
TOTAL	1	79	19 /100

	Col.29/1,2,3,4,5.	Col.29/6,7.	Col.29/8,9.
Col.23/1	0	1	0
2	16	9	54
3	5	3	11
4	0		0
0			
Reject	0(1)		
TOTAL	22	13	65

Col.26/1	1	3	17
2	0	1	0
3	4	3	20
4	0	0	0
5	2	0	7
6	0	0	3
7	0	1	2
8	15	5	16
9	0	0	0
0			
Reject			
TOTAL	22	13	65

Helen Hoop

Deck: 100

TALLY SHEET

Rx	Condition at Discharge Mech Imp. Recovered Col.23/1	Improved, Unsat. Imp. Col.23/2	Unchanged, Slightly worse Col.23/3
Col.26/1 Psychotic.	16 16	36	10
2 Ect. Ind.	0	0	0
3 Drugs	0	0	0
4 1+2	1	2	0
5 1+3	16	57	13
6 2+3	0	0	0
7 1+2+3	7	11	3
8 None	0	0	0
9 Combin	0	0	0
0 No Rx.	0		
Reject			
TOTAL	40	106	26

Condition at Discharge	Length of Hospitalization Col.29/1,2,3,4,5. <7 mos.	Col.29/6,7. 9-11 mos.	Col.29/8,9. 12+ mos.
Col.23/1	17	14	9
2	22	45	39
3	7	14	5
4	0	0	0
0	0	1	0
Reject			
TOTAL	~~46~~	74	53

Rx	Length of hospitalization		
Col.26/1	22	30	11
2	~~0~~	0 ~~30~~	0 ~~53~~
3	0	0 ~~0~~	0 ~~11~~
4	2 ~~0~~	1 ~~0~~	0 ~~0~~
5	18	34 ~~1~~	34 ~~0~~
6	~~0~~	0 ~~14~~	0 ~~0~~
7	~~4~~	0 ~~0~~	8 ~~34~~
8	~~0~~		0 ~~0~~
9	0	9	0 ~~0~~
0		~~9~~	0
Reject			
TOTAL	46	74 74	53 53

Menninger Hospital, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at the Massachusetts Mental Health Center.

d) Diagnosis: For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table IV). The diagnostic proportions of patients within these groups were similar for Hillside and MMHC in that slightly over half were diagnosed as schizophrenia and approximately one-quarter as psychoneurosis or affective disorder. In contrast, at Menninger Hospital psychoneurosis and personality disorder accounted for more than fifty per cent of the population.

Table IV

B. Intra-Hospital Comparisons

1. Methodological Problems

The intra-hospital statistical comparisons were limited by a variety of methodological problems. Most prominent was the lack of meaningful statistical cut-off criteria for the subdivision of populations, in part due to the homogeneity of the population within each institution and to the sample size. In the statistical analyses within a single institution several cells were obtained which had

COMMENTS BY PSYCHIATRISTS

Most of the unfavorable criticism can be divided into two complaints:

(1) insufficient number of sessions per patient paid for by Project
(2) " " " patients

On the second point, many apparently feel the Project should advertise itself more to its eligible subscribers, reminding them of the availability of coverage.

Favorable criticism was in general directed at expressing approval of the idea of testing psychiatric insurance. There were in addition a surprising number of complimentary remarks about the planning or administration of the Project.

SUMMARY

The typical participating psychiatrist is a man between 35 and 50, practicing in Manhattan. He treats patients in the hospital as well as in his private office, and he also does some clinic work. He has his "Boards" in psychiatry. His usual office fee is $20 or $25.

His primary orientation in his practice is analytical and psychological. This does not preclude his prescribing drugs or shock therapy.

His interest in the Project is demonstrated by the fact of his participation. If he has some adverse criticism, it is apt to be directed at the number of sessions allowed, which he regards as insufficient, or at the small number of patients who have sought care, which he regards as a reflection of an inadequate educational program. In short, his criticism is generated by his tendency to view the Project as a social rather than an insurance experiment. He feels the Project, operating in an area where the supply of private psychiatric time apparently exceeds the demand, is in a unique position to promote more psychiatry for more people, which is what he really wants - insurance or no.

The importance of social factors in accounting for the differences between the institutions is all the more striking since each hospital is recognized as an outstanding teaching facility, each has a full time supervisory staff, and each emphasizes the same treatment philosophy of psychoanalytically-oriented psychotherapy.

These results make clear that much of our present psychiatric concepts in such areas as diagnosis or clinical evaluation have relatively little meaning when applied from one patient population to another. If these concepts were taken literally the results become extraordinarily paradoxical. For example, Menninger's has the most highly trained personnel conducting treatment, keeps its patients for the longest time, and has fewest patients diagnosed as schizophrenic. And yet, with all these resources and favorable factors, it has

Table XXVIII

Social Class & Diagnosis (Percent)

Menn

	I & II	III	IV & V	N
Schiz	78.4	21.6	0	37
PN	82.9	14.6	2.4	41
affective	60.0	20.0	20.0	5

$df = 1$ (χ^2)
$\chi^2 = 0.7$
$P = NS$

HH

				N
Schiz	26.5	42.6	30.9	68
PN	25.7	28.6	45.7	35
affective	32.1	21.4	46.4	28

$df = 4$
$\chi^2 = 5.1$
$P = NS$

MMHC

				N
Schiz	41.7	8.3	50.0	36
PN	22.2	22.2	55.6	18
affective	16.7	8.3	75.0	12

$df = 2$
$\chi^2 = 3.1$
$P = NS$

the same institution are vulnerable to individual differences among examiners.)

Table

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c) Discharge Ratings of Improvement: Ratings of improvement varied in format and detail. The discharge rating at MFH was tripartite with a separate evaluation for social, characterological and behavioral changes. HH and MMHC had global ratings in which it was difficult to assess the contribution of each factor of the Menninger System (Table II). For this study the Menninger syndrone rating was used for purposes of comparison.

Table

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2. Sociopsychological Variables

a) Social Class: There was a marked difference in the

schizophrenia) received discharge ratings of unimproved more often than patients receiving psychotherapy alone. In duration of hospitalisation, patients receiving somatic therapy were hospitalised for longer periods than those receiving other therapies.

b) Duration of Hospitalisation: Considerable differences were show between the three institutions with respect to patient's length of stay (Table VI). MFH patients were hospitalised longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the HH patients and only 5 per cent of those at MMHC. The modal stay of the HH group was between seven and eleven months while two-thirds of the MMHC patients were discharged within six months of hospitalization.

At MFH and HH age was the social factor most closely related to length of hospitalisation -- younger patients remaining for the longest period. At every age level,

RESULTS

1. Methodological Aspects

When reporting studies from a home institution, the structure of the hospital is taken for granted, and either ignored or mentioned briefly. However, in studying a strange institution and attempting to gather comparable data one is made aware of the many differences between institutions. The nature of the hospital organization becomes one of the methodologic problems affecting treatment. For example, both the MMHC and MFH have day hospital units, while HH does not. At MMHC the treating physician can care for a patient as an in-patient, in the day hospital, and in the after-care clinic. In such a setting, he can feel free to discharge the patient from the hospital at an earlier date, knowing that he will still be responsible for his patient's care; whereas at HH, discharge means termination of that patient-doctor relationship.

TABLE III

Interinstitutional Comparisons for Sociopsychological Variables*

		MFH	HH	MMHC	
Social Class	1.	31%	7%	3%	χ^2=121.5 df=8 p<.001
	2.	51	20	28	
	3.	17	34	13	
	4.	1	34	29	
	5.	0	5	28	
Age	<20	19%	19%	15%	χ^2=3.9 df=4 p-n.s.
	20-39	59	58	53	
	40 +	22	23	33	
Years of Education	<12	23%	32%	41%	χ^2=9.7 df=4 p<.05
	12-15	54	51	49	
	16 +	23	17	10	
F Score	10-29	51%	33%	20%	χ^2=39.2 df=4 p<.001
	30-49	41	50	38	
	50-70	8	18	42	

* While percentages are presented here, Chi square analyses were done on observed values.

affected the collection and organization of the data. Specific problems were noted in designations of type of treatment, diagnostic terms and evaluation of treatment outcome.

a) Designation of Type of Treatment: The criteria for designating that a patient received "psychotherapy" differed among the institutions, making uniformity in classification difficult.

At MFH psychotherapy was designated as treatment administered on a prescription basis by a staff psychiatrist, for which the patient was charged a fee. Sessions with the psychiatric resident were considered part of routine administrative patient care.

At HH psychotherapy was defined as treatment sessions with the psychiatric resident. Staff psychiatrists did not treat patients, but restricted their activities to supervising the resident physicians.

At the MMHC psychotherapy was designated as a function of many disciplines -- psychiatric residents, psychologists, social workers, nurses and medical students. Formal records of such sessions were not routinely included in the patient's record and to ascertain which patients received psychotherapy, the resident in charge of each case was interviewed.

b) Diagnosis: Individual institutional diagnostic styles also made comparisons difficult. At MFH discharge

factors to the treatment variables.

3. Psychiatric Treatment Variables

a) Selection of Treatments: Among institutions, fewer patients at Menninger Hospital received somatic therapy than at Hillside or MMHC (Table IV). The percentage of patients receiving somatic therapy, at Menninger Hospital (43%) was significantly less than at either of the other two hospitals.

b) Duration of Hospitalization: The three institutions differed markedly with respect to patient's length of stay (Table IV). Menninger Hospital patients were hospitalized longest, with 65% of patients remaining for twelve months or more, compared to 31 per cent of the Hillside patients and only 5 per cent of those at the Massachusetts Mental Health Center. The modal stay of the Hillside group was between seven and eleven months while two-thirds of the Boston patients were discharged within six months of hospitalization.

c) Discharge Evaluation: In each hospital, most patients were evaluated at the time of discharge as "improved" (Table IV). At Menninger Hospital, however, a higher percentage (19%) of patients were rated as "unimproved" and only a single patient was called "recovered" or "much improved". The highest percentage of "recovered" or "much improved" ratings (28%) and the lowest proportion of "unimproved" (10%) were found at the Massachusetts Mental Health Center.

d) Diagnosis: For statistical analysis three diagnostic groupings were made: schizophrenia, affective disorders, and psychoneurosis and personality disorders (Table IV). The diagnostic proportions of patients within these groups were similar for Hillside and Boston in

While these investigations have again demonstrated the role of social factors in psychiatric treatment, we have been considerably impressed by the methodological problems of studies across institutions. These institutions were selected for their educational leadership and the expectation that the recorded variables would be clearly defined. But the differences in institutional style making it difficult to obtain comparable data are important cues to the problem of the conventional use of comparative statistics, especially in the evaluation of psychiatric therapies. The frequent use of discharge ratings, diagnostic classifications or length of hospitalization as criteria in therapeutic evaluations or the identification of comparable populations are subject to considerable error unless the institutions are clearly matched for social class patterns in patient population and for staff attitudes and style. The failure of scientists to confirm observations made in other laboratories may be as much a reflection of differences in populations and psychiatric criteria, as fallacies in the original hypotheses. The widespread use of such terms as "schizophrenia" or "psychoneurosis" to explore the changes in psychological or biological features with mental illness has led to what Bellak (2) has termed a science burdened by negative results. Even were a valid observation to be reported from one laboratory, we do not have methods available to describe populations adequately to provide a sound confirmation. We conclude that increased attention must be paid to the

provide other treatments including somatic therapies and active programs of milieu therapy. Each stresses short-term treatment of voluntary patients, does not provide custodial care and tends to draw its patient population from similar age groups.

The primary reason for selecting the institutions, however, lay in the expectation that they would serve patients of differing social classes (see ff) and that differences in this dimension would be reflected in the treatment variables. The specific purpose of this study was to determine population differences between the three institutions with respect to social class, age, education and F score, and to relate these patient characteristics to the treatment variables of type of treatment, duration of hospitalization, diagnosis and discharge evaluation.

TABLE III

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		MPH	HH	MMHC	
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	3.	17	34	13	χ^2=121.5 df=8 p<.001
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	40 +	22	23	33	
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