Trends in Patient Populations

Contrasted by Two Methods of Diagnosis

Barry J. Gurland, M.R.C.P., D.P.M.
Lawrence Sharpe, M.B., D.P.M.
Pamela Stiller, A.A.
James E. Barrett, Jr., M.D.

The authors were all with Biometrics Research, New York State Department of Mental Hygiene, 722 West 168 Street, New York, N.Y. 10032, at the time of the study. Dr. Barrett is now with Boston University Medical Center.
Acknowledgments

We are grateful for the encouragement and advice given us by Dr. J. Zubin, Chief of Biometrics Research, New York State Psychiatric Institute, and Dr. B. Pasamanick, Associate Commissioner for Research, New York State Department of Mental Hygiene. Mr. R. Simon helped with the interviewing of informants.

This work was supported in part by Public Health Service Grant MH 09191 from the National Institute of Mental Health, and in part by New York State Department of Mental Hygiene grant 5658-03 (108c).
Introduction

In order to evaluate and improve the effectiveness of a comprehensive mental health program one must, inter alia, know the kinds of patients using the services of that program (Mezey and Evans, 1971). Of particular importance are the types of psychiatric conditions encountered at different points in the chain of outpatient and inpatient services. This information, if accurate, indicates the points for delivery of different treatments.

A commonly used method of representing the clinical conditions in a group of patients is by their psychiatric diagnosis. The degree to which "routine" hospital diagnoses can be unreliable is well documented (Zubin, 1967) and this unreliability may obtain even between different wards of the same hospital (Pasamanick, et al., 1959). It is less well known that there are procedures which can be adopted to improve the reliability of diagnosis (Wing, et al., 1967); especially the use of structured interviews (Cooper, 1970) and glossaries of psychiatric labels to provide what can be called "standard" diagnoses.

In this paper we will contrast the use of routine and of standard diagnoses on patients found at different levels of outpatient-inpatient status. The levels of patient status are 1) emergency psychiatric clinic, 2) short stay psychiatric unit, and 3) long stay psychiatric unit.

The patients in this study all came from the same community (Borough of Queens in New York). The majority of psychiatric admissions to public hospitals, from this borough, are first assessed at the emergency clinic at Elmhurst. If a decision is made to admit them as inpatients, then they are either kept in a short stay unit at Elmhurst City Hospital or sent to a long stay unit at Creedmoor State Hospital.
Description of the samples

Separate samples of patients were taken from the different levels of patient status. All patients were within the age group 20-59 years inclusive and were selected without regard to their clinical condition or their cooperativeness. With the exception of one patient, none of the samples overlapped either in patients or in time.

1) Emergency clinic: Two series of patients were included. The first series (N=18) were seen during a strike of New York state hospital attendants, but only 2 patients discharged as a result of this strike turned up in this sample. The second series (N=14) were seen 2 months after the strike was settled. On days convenient to the investigators they attended the emergency clinic and interviewed the first patient to attend after the interviewer arrived. The first patient to attend after the interviewer had finished an interview became the next interviewee. The decision to interview or not to interview a patient was always made without any knowledge about that patient other than his time of arrival.

2) Short stay unit: (A sample of 39 patients). A patient was eligible for inclusion in this sample if he remained in the inpatient ward at Elmhurst for more than 48 hours. Patients who were in the ward for less time than this were almost invariably en route to another hospital. Those remaining for more than 48 hours almost always stayed for at least 10 days.

On days convenient to the investigators they attended the ward at Elmhurst, listed all admissions during the past 48 hours who were designated to be treated at Elmhurst, and arranged their names in random order. The interviewers then examined, in the given order, as many patients as time
allowed that day. Patients not examined that day were excluded from later lists. The decision to terminate interviewing for the day was always made without any knowledge about the remaining patients other than their name and sex.

3) **Long stay patients:** These were a random sample (N=31) of consecutive admissions to Creedmoor State Hospital. This sample was part of a larger sample of state hospital patients examined by the Project for the Cross-National Study of Diagnosis of the Mental Disorders (Cooper, et al., 1971; Gurland, et al., 1970).

**Procedure**

Routine hospital diagnoses were made in the usual way by the hospital staff. No information was exchanged between the hospital staff and the project psychiatrists. The latter were mostly British-trained. Each patient was interviewed by a project psychiatrist using a structured interview (consisting of 700 defined items of psychopathology with appropriate suggested questions) and a brief structured psychiatric history. Patients in the emergency clinic were examined by the project team within a few hours of arrival and patients in the wards were examined within 48 hours of admission. Where required, additional information was obtained from an informant who knew the patient. Project diagnoses were reached by consensus between the project psychiatrist who examined the patient and other project psychiatrists who reviewed the information on that patient. Project diagnoses were based on the psychiatric section of the International Classification of Diseases and the relevant glossary of terms provided by the British Registrar General's office (General Register Office, 1968).
Reliability of standard diagnoses: One project psychiatrist (BJG) observed and independently rated and diagnosed interviews conducted by another project psychiatrist (LS) on ten successive inpatients on the short stay ward. There was agreement about the major category of diagnosis (as defined in DSM-II) on 9 out of these 10 patients. One or both of these two project psychiatrists were involved in each consensus diagnosis. Other evidence of the reliability of project diagnoses has been presented elsewhere (Cooper, 1970).

No direct information is available about the reliability of the hospital diagnoses.

Results

The figure compares the routine hospital diagnoses with the standard project diagnoses.

Insert Figure about here

For the purpose of this comparison diagnoses were grouped under the categories 1) Affective (manic-depressive-depressive; manic-depressive-manic; involutional melancholia; reactive depressive psychosis; and neurotic depression); 2) Schizophrenia (all forms of schizophrenia; paranoid states; and schizo-affective disorder); 3) Other Neuroses (i.e. other than depressive neurosis) and Personality Disorders; and 4) Other. The last category is not further used in this comparison because of its heterogeneity.

Project diagnoses show more affective disorders, and personality disorders or other neuroses, than do hospital diagnoses in almost every clinical situation. These differences are slight in the emergency clinic situation
but, especially for affective disorders, are marked in the short and long stay units.

The project diagnoses suggest that patients with affective disorders are preferentially selected for admission from the emergency clinic and tend to be kept in the short stay unit rather than sent on to the long stay unit. Nonetheless, a substantial proportion of affective disorders are still to be found in the long stay unit.

The hospital diagnoses suggest that schizophrenics are preferentially selected for admission from the emergency clinic and that very few patients with affective disorder are to be found in the long stay unit.

Both project and hospital diagnoses agree that schizophrenics are preferentially selected over affective disorders for referral to the long stay unit; and that personality disorders or other neuroses tend not to be admitted, or if they are admitted, they tend to be kept in the short stay unit.

Discussion and Conclusions

In view of the previous work of this project (e.g. Cooper, et al., 1971; Gurland, et al., 1970) and of others (e.g. Sandifer, et al., 1969) on Anglo-American differences in diagnostic criteria, it is not surprising that the British-oriented project psychiatrists diagnosed affective disorder more often than the New York hospital psychiatrists. Relative to the yardstick of the project's diagnosis, the hospital psychiatrists on the short stay unit showed the same diagnostic tendencies as those previously known for psychiatrists on the long stay unit. However, unexpectedly, the hospital diagnoses in the emergency clinic are much closer to the project standard.
The project and the hospital methods of diagnosis each give a different picture of the trends in diagnostic distribution to be found at successive levels of patient status. One or the other method of diagnosis is operating on criteria which vary between the different levels of patient status. Presumptive evidence is in favor of consistency in the project diagnosis because of the special care taken to maintain reliability and because of the proven reliability of these diagnoses.

These results show that diagnoses made by psychiatrists even within the same hospital system may give a misleading picture of the changes of patient population between different clinical situations. However, both the routine hospital diagnoses and the project standard diagnoses are in agreement that patients with affective disorders tend to be treated in the short stay unit while schizophrenics tend to be sent on to the long stay unit.

The tendency for patients with affective disorders to be treated in the short stay rather than the long stay unit reflects what appears to be a sensible policy, since these patients may be expected to recover sooner than do schizophrenics. According to the trends shown by hospital diagnoses, the above policy is being faithfully followed. However, the project diagnoses suggest that substantial numbers of patients with affective disorders are still being sent on to the long stay unit. A question is therefore raised about the public hospital system in New York, as to whether psychiatric patients suitable for a short stay unit are in many cases being sent to a long stay unit because their affective disorder is not recognized by the hospital psychiatrists.
Summary

The distribution of psychiatric diagnoses was examined in samples of patients attending an emergency clinic, a short stay unit, and a long stay unit of the same hospital system. Two sets of diagnoses were analyzed, namely "routine hospital" and "standard project" diagnoses of proven reliability. A comparison of the two methods of diagnoses showed that routine hospital diagnoses, even when made by psychiatrists in the same hospital system, may give a misleading picture of the changes of diagnostic distribution between the different clinical situations. However, both sets of diagnoses agreed that patients with affective disorders tend to be treated in the short stay unit while schizophrenics tend to be sent on to the long stay unit.
REFERENCES


Figure 1
Routine Hospital and Standard Project Diagnoses in the Emergency Clinic, Short Stay Unit and Long Stay Unit

Affective

Schizophrenia

Personality Disorders and Other Neuroses
Figure 1
Routine Hospital and Standard Project Diagnoses in the Emergency Clinic, Short Stay Unit and Long Stay Unit

- Affective

- Schizophrenia

- Personality Disorders and Other Neuroses