Prognostic Indicators In Mental Illness

With the advent of specific therapies in the field of mental disease, it has become essential to determine for each patient the particular therapy from which he is most likely to benefit. This is a different picture from earlier days.

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when the one universal method of treating all mental patients was custodial care.

Prognosis is the only method available at the present time which makes possible the identification of patients who do or do not get well under current therapies. Moreover, in developing experimental designs for the evaluation of a new therapy, it is important to know the prognosis of each patient under nonspecific therapy in order to establish control groups.

Prognosis is always difficult because it is prediction. In the field of mental illness prognosis faces special difficulties. The disease entities are poorly defined. Knowledge regarding the natural history of the illness is lacking. The potential of the therapist as a factor influencing outcome of the illness is variable. Objective criteria for gauging the mental patient’s improvement do not exist. Valid followup data on discharged patients are lacking.

There are at least three types of prognostic indicators in mental illness: psychological test prognoses, psychiatric prognoses, and social work prognoses. All three are useful. But most prognoses have been impressionistic, and their overall accuracy has been low. It is essential that greater objectivity be introduced in the prognostic approach to mental disease.

Three Prognostic Indicators

An analysis has been made of 183 articles which reported studies on the relationship between psychological test performance and outcome of mental illness. Many of the studies failed to demonstrate empirical justification for the conclusions drawn, and there was little agreement in findings among the studies.

In future research on prognosis through psychological tests, variables must be controlled to a much greater extent than has been customary in the past, if reliable prognostic indicators are to be discovered. The patient population must be described in all pertinent detail, the conditions of therapy stipulated, and objective criteria of outcome presented. The experiment must deal with relatively homogeneous populations and conditions. Findings should be reported in terms amenable to statistical evaluation, and must be subjected to cross validation.

Until recently most of the tests used were of the conceptual type. There is a growing need for developing tests and techniques for sampling the entire range of human responsiveness: physiological, sensory, perceptual, psychomotor, and conceptual.

Data in the studies reported in some 800 articles which had bearing on the value of psychiatric prognoses have been analyzed trait by trait in an effort to determine the relevance of each trait to outcome of illness. Traits were classified under such headings as physical characteristics of patient, emotions, thought processes, course of disease, and so on. A majority of the studies failed to give sufficient data about the nature of the patient or the therapy, and so results of the analysis must be regarded as tentative. It seemed that for about 10 percent of the traits, specific therapy showed an advantage; for another 10 percent, a disadvantage; and that for about 80 percent, the direction of prognosis was unchanged from that expected under nonspecific therapy, regardless of the type of therapy employed.

Investigation is being made of the background information of some 200 patients, with all the prognostic traits included. From these data it may be possible to make pattern analyses of the constellations of prognostic indicators, which may be more helpful in evaluation of outcome than are single traits taken one at a time.

A pilot study of the relationship between home environment and outcome of illness of 51 schizophrenics, using data from the case records on social workers’ preconvalescent evaluations of family environment and of convalescent adjustment, indicated that, in a 1-year followup, those with “good” homes showed poorer outcome in terms of “in” or “out” of the hospital than those with “poor” homes. However, when their case histories were analyzed and indexes of pathology based on a study of the literature on prognosis were constructed, those with “good” homes also tended to show more pathology than those with “poor” homes.

In a subsequent study of these 51 schizophrenics by a group of 6 social workers, a set of criteria for good, fair, and poor homes was developed. The criteria included emotional as well as physical factors in the home. The social
workers were also responsible for the systematic collection of data through interviews with patients and families. The criterion of outcome used was number of readmissions to Brooklyn State Hospital or other mental hospitals since 1953.

The findings of the study showed that outcome of illness both in good homes and in poor homes was worse than outcome in fair homes. As to pattern of rehospitalization, in the category of good homes there were shorter and more frequent hospitalizations; in that of fair homes, less frequent hospitalizations, whether long or short; and in that of poor homes, primarily short and very frequent hospitalizations. Degree of pathology was not taken into consideration in this study, but it was hypothesized that poor outcome in the poor homes might reflect the environmental factor.

A study of 230 schizophrenic patients is now in progress to test the interrelationships of degree of pathology, home environment, and convalescent adjustment. Degree of pathology will be defined by an index based on case history items. Home environment and also convalescent adjustment will be evaluated by social workers through structured interviews with the family and the patient.

Criteria and Measures

Objective criteria of outcome in mental illness are needed, and efforts are being made to develop them.

An index of stability of outcome is obtained by computing the percentage of time, within a specified followup period, which the discharged patient spent in the community before being readmitted to the hospital. He may return several times during the followup period, or he may not return at all, in which case the rating is 100 percent. This kind of index is regarded as a more basic measure of outcome than the much-used but undefinable terms “improved” and “in and out of hospital.”

An immobility index, which may range from 1 to 24, is obtained by dividing number of months spent in the hospital within a 2-year period by number of moves into the hospital, counting first admission as first move. The 2-year period was chosen because several earlier studies had demonstrated that most patients who remain in the hospital longer than 2 years have a constant and very low discharge rate.

The level of the patient’s adjustment in his family and the community is another criterion of outcome. In a current study a social worker interviews the discharged patient and his family at specified intervals to obtain data on the quality and quantity of interaction by the patient with his roles in the family, at work, and in the community. A standard interview schedule is used. An attempt will be made to assign weights to items in order to construct an index of convalescent adjustment.

The patient’s adjustment while in the hospital is also being studied. Behavior scales have been developed for use by ward attendants, the items so worded as to minimize confusion about meaning and so interspersed as to minimize the halo effect. An attempt will be made to see how much information each item conveys and to construct an index of hospital adjustment.

A very important problem facing the biometrician is that of integrating the variety of measures obtained from all sources. New methods to do this must be found, employing techniques suitable for the analysis of the individual as well as of the group. Two techniques—the agreement score and the distance score—are being utilized.

Epidemiology

Until recently epidemiologists of mental illness have been concerned chiefly with etiology. Epidemiological factors, such as paranatal influences, familial incidence, national origins, early development, parental attitudes, employment, neighborhood environment, have been examined for their etiological import, but their significance for outcome has not been emphasized. Yet all such epidemiological factors loom large in the welfare of the patient. They are an important tool in rehabilitation. They are of consequence in relieving or preventing stresses that may aggravate the improved patient. Even if treatment is only on an ameliorative level, epidemiological factors become the chief source of maintenance of the patient in the community.
The achievements of epidemiology in warding off the effect of epidemic physical disease have been notable. Great need exists to have the epidemiological approach extended to the field of mental illness to discover what good it can achieve.