

oration of the schedule and the use of interviewers who can be trained fairly rapidly. To some extent the trend is analogous to the breakdown of the craftsman's job into simple component parts that can be done by the semi-skilled workers on the assembly line.

Whatever may be the trend in interview procedure, there will remain the need for periodic re-examination of principles and methods. In a broad sense that is the contribution that has been made by the present volume.

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A FOLLOW-UP STUDY OF WAR NEUROSES¹

THE stimulus provided by warfare to certain forms of medical and scientific research is strikingly illustrated by this volume. During the second World War approximately 703,000 patients from the United States army and the United States navy and marine corps entered hospital with a diagnosis of psycho-neurosis; 27 per cent of all army discharges for disability and 16 per cent of the navy discharges were on account of neurotic illness; 377,000 of these discharged people were still receiving compensation at the end of 1952, 40 per cent of them with 10 per cent disability-ratings. A problem of this magnitude raises important military and administrative questions and it fitted well into the post-war programme of medical follow-up studies developed by the Committee on Veterans' Medical Problems of the National Research Council. The results of the investigation directed by Drs. Brill and Beebe are now presented as one of the Veterans' Administration Medical Monographs.

The core of the investigation consisted in the five-year follow-up, by clinical interview when possible, of a randomly selected group of 1,475 men admitted to hospital during military service because of a neurotic disability; officers, females, and coloured men were excluded. As one control group the authors included a sample of 397 enlisted men in World War II for a comparison during the period of military service; they were

¹ Brill, Norman Q., M.D. and Beebe, Gilbert W.: *A FOLLOW-UP STUDY OF WAR NEUROSES*. Washington, Government Printing Office, 1955.

not, however, followed up after their discharge from the service. When the figures pointed to the significance of the pre-service history another group of more than 500 inductees at the time of Korean conflict were given a psychiatric examination. The authors state that their three principal objectives were, firstly, to describe and compare characteristics of the psychiatric and control groups; secondly, to study the circumstances attending psychiatric breakdown, the cause of the illness and the quality of subsequent military service; and thirdly, to determine the fate of the members of the patient population and to estimate their psychiatric status five years after admission. Their most important conclusions are incorporated in the 217 tables around which most of the study has been written. These tables contain the numerous data pertaining to life histories before, during, and after military service which have been coded and subjected to extensive statistical analysis.

A heavy operational bias is evident throughout the work. The authors proceed by amassing a great deal of information which is given numerical expression whenever possible; hypotheses tend to follow rather than precede data-collection; the search for predictive indices is undertaken with great care. An example illustrates and illuminates the method. Examining what they call "pre-service adjustment" the authors explore family, sex, school, work, social and recreational activity, community activities, and marriage, to obtain ratings of adjustment in each of these sectors of the life history. They provided the examiners with a predetermined set of criteria for guidance. An index termed the "Adjustment Summary" was then derived from these ratings by summation and an assessment was made of its value in the prediction of breakdown during service. With a control group for comparison it was then weighted and incorporated, along with eight other pre-service characteristics similarly treated, into a "pre-disposition rating" for the purpose of psychiatric screening. The statistical method employed in the derivation of this pre-disposition rating is of less interest here than the authors' line of argument: "It is assumed that underlying the qualitative scale is a continuous variable, distributed differently in the two groups of men. . . . If the basic assumption is satisfied approximately (which seems not

unlikely), then this particular quantification should be at least near optimum. But in any case, the final test is whether the quantification results in a useful tool." (page 99) Not until they have found the index to be a "poor device" do the authors go on to admit that no alternative index could be superior for the reason that . . . "stress is of too great importance for a predisposition rating to be very useful in forecasting just who will break down." (page 104)

The effectiveness of the study reflects the quality of the data. It is therefore most successful when the information obtained is most clear-cut. On the issue of compensation, for example, approximately one half of the patient population was receiving an average compensation of \$27.60 per month at the time of follow-up. Whereas 16 per cent of the men examined were suffering from neurotic illness without compensation, approximately 30 per cent were considered to be without disability but in receipt of compensation; by inference it is estimated that 15 million dollars compensation were paid in 1953 to men without disability. The receipt of compensation appeared to be unrelated to working efficiency; however, when a comparison was made of matched groups, one of which was returned to duty following breakdown and the other discharged with disability, 72 per cent of the latter and only 28 per cent of the former group were found to be drawing compensation. It is of logistic interest to learn that the admission rate to hospital for neurosis was highest in the first month of service, dropped sharply until the second year of service and then rose again to the earlier level among men with four or more years of service. The curious may even be satisfied with the knowledge that neurotic patients were awarded an insignificantly smaller number of Purple Heart Decorations than the controls.

The clinician will be less satisfied. He will accept and be grateful for the statistical expertness but he will remain concerned about the quality of much of the information. He will certainly wonder, for example, about the reliability of the diagnostic categories employed in the examination of this heterogeneous group of patients by a heterogeneous group of psychiatrists. Personality-classification is a notoriously difficult undertaking but where so much is made of the difference between

neurosis and personality disorder a definition of the "instinct-ridden personality" or of the precise difference between the "overtly passive dependent personality" and the personality with "latent dependency problems" may be justifiably expected. The quantification of intimate, personal material, e.g., parental attitudes in childhood, based on the patient's estimate alone will seem to be of questionable value. The code and coding criteria are not included because of their bulk but those glimpses that are permitted indicate the problems set by such material; thus the criteria for assessing religious influences on family life run as follows: "If there is supporting comment which fails to show evidence of excessive restriction as to thought or behaviour, or guilt-production, the proper choice will be no great influence or positive force. If examiner considers family overtly religious, this additional fact will be recorded." (Page 71) The clinician will not be surprised to discover that all the information provides ". . . no satisfactory explanation for the breakdown of one man and not another similarly exposed."

Nevertheless, the broad conclusions of the study are of considerable interest. The high hopes entertained of the prognostic value of psychiatric screening at induction were not realised; the authors recommend that this procedure be confined to "the elimination of obvious misfits" and that the only test in doubtful cases is a trial at military duty. One million men with unsatisfactory psychiatric histories served in the American Army without breakdown in World War II; the task of the military psychiatrists, it is suggested, concerns itself less with screening than with the optimal utilisation of available man-power. Problems of disposal within the service assume great importance. This view-point entails in turn a shift of attention towards social or group psychology and away from the individual psychology on which psychiatric screening and much psychiatric practice was based. Further evidence in support of this view emerges from the follow-up findings of soldiers discharged from the service with neurotic disability: among these men the general trend towards improvement was related to sociological factors rather than to military experience, degree of disability or the treatment administered.

The successful organisation and prosecution of such a complex study represent a tribute to the skill and pertinacity of the authors. Great care is devoted to method and design; the usual pitfalls of sampling, bias and contamination are anticipated and avoided. Many theoretical issues, however, receive little attention. The complex problems bearing on the clinical and statistical prediction of human behaviour are not mentioned; and difficulties associated with the concepts of stress, predisposition and neurosis itself are for the most part ignored. The outstanding contribution of the investigation resides in the large-scale demonstration which it provides of a much neglected method for the study of neurotic illness. Many of its defects might have been avoided if the ground had been better prepared by sound epidemiological studies. As it is, the work stands as a pioneering effort. For the peace-time psychiatrist its first sentence remains a challenge and a reproach: "Comparatively little is known about the natural history of the neuroses."

MICHAEL SHEPHERD

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TWO VETERANS ADMINISTRATION MEDICAL MONOGRAPHS

THIS monograph¹ described the findings of the Committee on Veterans Medical Problems of the National Research Council in Washington, D.C., relative to the effectiveness of x-ray screening of individuals at induction (July 1, 1942 or after although not later than July 1, 1945) and discharge (May 1, 1943–December 31, 1946) with a diagnosis of tuberculosis in World War II. The rosters comprised 3,099 randomly selected men discharged from the Army with tuberculosis and 3,000 men in the control group who were not discharged with a diagnosis of tuberculosis.

Three general topics are surveyed in this monograph: (1) comparison of x-ray readings of two roentgenologists, (2) effectiveness of the induction and separation screening procedures

¹ Long, Esmond R., M.D. and Jablon, Seymour, A. M.: *TUBERCULOSIS IN THE ARMY OF THE UNITED STATES IN WORLD WAR II*. Washington 25, D. C., Government Printing Office, 1955, VIII + 88 pp., \$1.50.