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Psychiatric Diagnosis and a Typology of Clinical Drug Effects*

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Summary. Analyses of clinical drug effects have largely been derived from univariate rating scale or global improvement scale data. In general, global improvement scales have proved more sensitive and clinically useful than univariate scales. Another approach, presented here, is to use qualitative outcome categories to which patients are assigned on the basis of the configuration of multiple changes. Such a systematic qualitative outcome typology is presented as used in an experimental study of 309 non-chronic voluntary psychiatric patients who, regardless of symptomatology or diagnosis, were randomly assigned to placebo, imipramine or chlorpromazine-procyeldine, in a fixed dosage double-blind study.

This outcome typology is compared with a global improvement scale and related to diagnosis. In general, the drug outcome categorization was equal or superior to the global improvement scale in detecting the differences between drugs and placebo. Furthermore, by utilizing the author’s diagnostic schema, as well as the qualitative outcome typology, the prediction of specific drug induced qualitative outcomes by diagnosis was demonstrated.

Key-Words: Diagnosis — Drug Therapy — Psychopathology — Multivariate Analysis — Improvement Measures.

Introduction

Recent psychopharmacological advances have confronted the psychiatric profession with the inadequacies of its methods for describing change. To meet this challenge there has been a swift proliferation of two worthwhile devices: univariate rating scales that propose to measure some specific aspect of the patient (i.e. anxiety, belligerence, hallucination), and global improvement scales. This paper presents yet another alternative that may allow for distinct advantages in the description and prediction of drug effect.

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In a previously reported study (Klein, 1967a) it was demonstrated that a diagnostic subdivision of a heterogeneous group of psychiatric patients allowed prediction of psychotropic drug effects, as measured by a global improvement scale. However, the use of this improvement measure resulted in such an abstract description of drug effects that the clinical realities were only dimly reflected.

At the other extreme from the single global improvement scale is the microscopic description of patients, in terms of multiple observation and self-report scales, before and after drug administration. However, this detailed and rigorous method does not do justice to clinical reality since no single scale reflects the individual’s pattern of clinical traits.

Utilizing a profile of traits as a description of the individual’s clinical pattern does not avoid the problems that result from equating superficially similar traits. To avoid the erroneous equation, both statistically and clinically, of superficially similar phenomena (e.g., “panic” in phobias and in schizophrenia), one must use a diagnostic schema. A diagnosis implies that the salient psychopathological traits of each diagnostic group reflect common underlying processes. Insofar as the schema is correct, members of a diagnostic group should show similar behavioral sequences when influenced by a common therapeutic intervention. If this fails to occur further nosological refinement is required.

In clinical studies of psychotropic agents (Klein and Fink, 1962, a, b), the authors were impressed by the patterned effect of psychotropic medications upon the psychopathological configuration. It seemed that drug effects could be used to classify the bewildering variety of patients. This procedure could then lead to the development of a drug relevant diagnostic nosology.

This paper’s point is to provide an alternative to the two prevalent methods of measuring change with psychiatric drugs, i.e. univariate scales, and global improvement scales. It will describe a series of qualitative outcome patterns to drugs, and will attempt to demonstrate that they are uniquely related to both the medication and the initial psychiatric status of the patient.

Hopefully, their qualitative outcome patterns should be of general usefulness and in particular they should afford some leverage on the problems of prediction of drug effect. The data are derived from an experimental psychopharmacological treatment study.

Method

An experimental program at Hillside Hospital (Fink et al.), was initiated in 1961 to study the effects of chlorpromazine and imipramine. The subjects of the study were patients in a 200 bed, open ward, voluntary psychiatric facility. All patients were considered to have early and acute