Effectiveness of Drug Therapy in Schizophrenia

The findings of many major studies have established the efficacy of neuroleptic medication in schizophrenia over a range of different situations.

Recent studies have focussed particularly upon the role of neuroleptics in preventing relapse. In a review of 24 controlled studies (Davis, 1975) it was concluded that the evidence of such efficacy is overwhelming and that the consistent findings of controlled trials in this field are most unlikely to be attributable to systematic methodological errors. In some studies, the risk of relapse has been shown to be approximately dependent on time. In the studies reviewed by Davis (1975) the mean relapse rate in the drug treated group was less than half that observed in the control groups. Hogarty et al. (1973, 1974a, b) studied the interaction of continued neuroleptic medication with social casework (major role therapy) designed to enhance the patients' adjustment in his or her occupational role, e.g. in a job or as a housewife. After a two-month period of drug-stabilization after discharge from hospital following an acute schizophrenic episode, patients were randomly allocated to treatment with neuroleptics (chlorpromazine) or placebo, and to major role therapy (MRT) or no MRT. Relapse rate over the two years following discharge revealed a substantial effect of medication (80% of patients on placebo compared to only 48% on drug therapy had relapsed at the end of this time).

The effects of MRT were small compared to drug therapy but there was a significant tendency for those on drugs to be less likely to relapse if they also had MRT and this tendency appears to increase with time.

Two further aspects of this study deserve comment:

1/ Although the benefits of neuroleptics are substantial, almost a half of the patients on such medication have relapsed after two years.

2. It is apparant that the relapse rate in patients with placebo is reaching a plateau at the end of two years, i.e. no future relapse.

This suggests that the risk of relapse is not, as Davis (1975) had suggested, strictly an indicative function of time. Rather it appears that there it a group of patients (perhaps 15% of the original study) who will remain well without medication. Unfortunately the characteristics of this group remain unclear. The National Institute of Mental Health psychopharmacology group researchers (1964) also examined the symptoms and adjustment of patients remaining in the community. Symptom levels, assessed by the Brief Psychiatric Rating Scale, were closely similar in patients remaining in the community on placebo or drug for 12 months following discharge from hospital (Hogarty et al., 1974b). This suggests that the effect of medication is prophylactic with respect to the risk of relapse rather than acting by diminution in illness severity. In patients who remained in the community, there was a clear evidence of an interaction between drug and social therapy. Patients treated with major role therapy and drugs showed evidence of better adjustment than those treated with drugs alone although this difference was only well established in the second year adjustment than those on placebo combined with sociotherapy. Thus social work follow-up actually seemed to make patients worse in the absence of drug therapy. This unexpected result must be seen in the context that only 20% of those in the placebo group had not relapsed at the end of two years while the comparable percentage for the drug group was 52%.

An outstanding problem is whether it is safe to discontinue medication when a patient has remained in the community over a period of time. Hogarty et al. (1977) tried to answer this question by analyzing the data from his trial and calculating the risk of relapse at different points of time. They found that while the risk of relapse does decline with time, it remains substantially higher in patients on placebo than those on medication. Thus they found that over the three-year period of the study the superiority of maintenance chemotherapy in preventing relapse was 2½ to 3 times that of placebo. Even after two years, the risk

of relapse on placebo remained at least twice that on maintenance medication.

Recent work on environmental and family factors may be relevant to the role of drugs in preventing relapse. Birley and Brown (1970) suggested that the recurrence of schizophrenic symptoms is preceded by the occurrence of life events in the three weeks before admission. Vaughn and Leff (1976) examined the relationship between expressed emotion (over-involvement, hostility and critical comments) in the nearest relatives, time in contact with this relative, and drug therapy in relation to relapse. The findings suggest that neuroleptics may be having a greater effect in those groups exposed to a high risk of relapses as predicted by the interaction with the nearest relative. Such findings may provide a lead toward identifying those groups of patients most in need of continued neuroleptic medication. So the effect of medication may appear to be small in the low expressed emotion group. Bleuler (1972) in a follow up study of 208 patients for 22 years stated that there is no support for the view that the therapeutic methods available result in the avoidance of those appalling forms of the illness in which it begins insidiously and progresses steadily ($\frac{1}{3}$ - $\frac{1}{4}$ of cases). If in an illness with an acute onset, treatment is promptly instituted and recovery occurs, in a large proportion of such cases the recovery would have taken place without any treatment. He concludes his remarks by saying that all forms of treatment are beneficial which aim skilfully at the following objectives :

a) Rehabilitating the patient.
b) An emotional storm at the right time.
c) Relaxation and sedation when the patient is too excited.

Some recent psychophysiological studies suggest that it may be possible to use skin conductance measures to predict the outcome, at least in the short term. Frith **et al.** (1978) measured skin conductance in 45 patients with recent onset schizophrenia and were classified as habituators or non-habituators according to whether their skin conductance response to an auditory stimulus diminished with repeated stimulus presentations.

Thus in this study the skin conductance measure was a better predictor of outcome than type of illness onset and whether or not the patient received active medication. Such findings suggest that a combination of psychophysiological and sociological assessments may provide a much better prediction of the outcome and response to medication than has previously been possible (Crow et al., 1979).

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Revision of the Rationale of Long-term Drug Treatment in Psychiatry

The medical model which appeals to the majority of contemporary psychiatrists should not only be analogous to orthopedic manipulation of fractures (break down), but should also be comparable to the management of cardiac arrythmias. Any psychiatric practice depends on how man is conceptualized. If man is taken as a machine that just needs repair every now and then, we have to expect that isolated physical therapy could be considered rational. But if man is taken both biologically and existentially as a pulsating growing organism, then drug therapy alone could never be accepted as satisfactory.

This concept, i.e. man as a pulsating ever-growing organism stems from Erikson's eight ages crises (Erikson, 1972) as well as growth oriented humanistic psychologists (Maslow, 1969; Sutich, 1969), but it extends beyond these concepts to include the pulsating nature of vital matter as a cardinal feature for understanding man in his personal evolutionary movement. As stated elsewhere by the author: "The march of growth takes a pulsating, spiral and dialectic synthetic pattern. The wakefulness-sleep alterations, the REM-NREM alterations and the incubation-activity alternations are but aspects of this systolic (unfolding), diastolic (assimilating) growth pulsations" (Rakhawy, 1979). Thus psychiatric disorders are to be considered as temporary or permanent hazards of human pulsation along with the individual's evolution (growth). Modern schizoid life, particularly the western model, has favoured neurotic (psychotic-equivalent) steady linear existence for taking man as a continually pulsating biological existence. In psychiatric practice, the rapid decline of the incidence of periodical manic-depressive illness (Pugatch and Solomon, 1974; Cohen, 1976) and other periodical disorders is another warning. Can we correlate the latter observation to the world-wide use of tranquilizers, particularly phenothiazines? First, such chemical restraint was used as a temporary control, but later on as a long-term (regrettably to say, rather permanent) inhibitory therapeutic policy. The new lithium era, in the last decade, has been participating in eliminating