

A Controlled Study of LSD Treatment in Alcoholism and Neurosis

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Favourable results have been reported from the use of lysergide in a wide variety of psychiatric conditions, but controlled studies (2, 3, 4) have not confirmed the existence of a therapeutic effect. In this experiment, alcoholics and neurotics who had been referred by Saskatoon psychiatrists for LSD treatment were allocated at random to Treatment and Control groups after undergoing a series of psychological tests. The members of the Treatment group were offered up to five LSD experiences at intervals of two weeks, whereas those in the Control group were informed that this type of therapy would be made available to them after a twelve-month waiting period. Accounts of the LSD experiences were sent to the referring psychiatrists, who were expected to continue to provide standard treatment to the members of both groups.

SUBJECTS

Fifty-one patients were accepted for the study over a two-year period, and their classification by group, sex and diagnosis is given in Table I.

The age range extended from 17 to 54 years with a median of 33 and a mean of 33.1.

TREATMENT

The twenty-five members of the Treatment group received a total of 79 LSD experiences. Treatments were given in single rooms in a general hospital setting where the lysergide was administered orally, preceded by a five milligram tablet of dextroamphetamine to reduce anxiety during the induction phase. In order to produce an intense experience without loss of control, treatment was begun with a small quantity of lysergide to which supplementary amounts were added if the effect was judged to be inadequate. Subsequent treatments were started with larger doses if the drug had been well tolerated. The dosage of LSD ranged from 50 to 300 micrograms per treatment, the modal dose being 100 and the mean 163 micrograms. The psychedelic state was terminated by an injection of promazine or chlorpromazine when necessary, and patients who felt fit to leave the hospital were then

TABLE I
Classification of subjects by sex and diagnosis

Diagnosis	Treatment group			Control group		
	Male	Female	Total	Male	Female	Total
Alcoholism	11	1	12	7	5	12
Obsessive-compulsive reaction	0	0	0	0	1	1
Phobic reaction	1	0	1	1	1	2
Anxiety state	3	2	5	2	3	5
Hysteria	1	0	1	0	1	1
Psychoneurosis with somatic symptoms	0	0	0	0	1	1
Character disorder	4	1	5	2	0	2
Sexual neurosis	1	0	1	2	0	2
Totals	21	4	25	14	12	26

permitted to do so in the company of friends or relatives; the others stayed overnight.

ASSESSMENT

No attempt was made to use a double or single blind procedure, but the assessments were performed by staff members who had no personal experience with hallucinogenic drugs and were not involved in the treatment process. All the subjects were tested initially before allocation to the groups, and it was planned to test them all again at six months and at twelve months. In practice a high proportion did not keep their test appointments, or failed to return the self-rating forms. Seventeen patients in each group completed their six month ratings, and at twelve months this had fallen to 13 in the Treatment group and 16 from the Controls. Partial follow-up information was obtained from approximately one-half of the remainder.

The test battery comprised the following instruments:

- (a) The Eysenck Personality Inventory.
- (b) The IPAT Objective Anxiety Scale.
- (c) The MMPI.
- (d) The Lorr Multi-dimensional Rating Scale (Out-patient Form).
- (e) The Background and Follow-up Questionnaire for Non-Schizophrenic Patients (1).

The data were analysed at the Computer Centre of the Saskatoon Campus, University of Saskatchewan.

RESULTS

Since data were available at three points in time for each dependent variable, it was possible to make three comparisons over time for each group studied, namely, comparisons between time 1 and time 2; time 2 and time 3; and time 1 and time 3. Such analyses were carried out on both the Treatment and Control samples for a total of six analyses altogether. In addition, comparisons were made for each time period between the Treatment and Control groups, which gave a total of nine analyses for each dependent variable in the study.

Taking five per cent as the significance level, it was reasoned that at least five per cent of the analyses would fall inside the critical regions

on the basis of chance alone, and that a number in excess of five per cent of the comparisons made would be required for the rejection of the null hypothesis. In all areas of the study for which data were available the number of statistically significant differences was less than or only slightly greater than five per cent of the comparisons, and therefore the null hypothesis could not be rejected.

More specifically, the following results were obtained:

(1) For the MMPI, six statistically significant differences between groups appeared when the t-test was used for group means. (Out of a total of 126 comparisons, five per cent of 126 or six significant differences could be expected on the basis of chance.) These six differences showed no consistent pattern of more favourable scores for Treatment subjects as compared to Control subjects.

(2) For the Lorr Multidimensional Rating Scale, two statistically significant differences were obtained by using the t-test for group means. (Out of a total of 90 comparisons, five per cent of 90 or four significant differences would be expected on the basis of chance.)

(3) No statistically significant differences were obtained for any of the scales of the IPAT by using the t-test for group means.

(4) For the Maudsley Personality Inventory, two statistically significant differences appeared when the t-test was used on group means. (From a total of 27 comparisons, five per cent of 27 or one significant difference could be expected on the basis of chance.) These results failed to reveal a general trend, since they indicated an increase in extraversion scores for Treatment subjects at time 3 compared to time 2, and an increase in extraversion scores for Control subjects at time 2 compared to time 1.

(5) For the Questionnaire data, nine statistically significant differences were obtained using chi-square. (Out of a total of 165 comparisons, five per cent of 165 or eight significant chi-square values would be expected on the basis of chance.) Of the nine significant differences, four showed that Treatment and Control samples differed at time 1 in that Control patients more frequently reported seeing their

doctor about physical complaints, as well as stating that their feelings interfered with their work. These results indicated that the matching of Treatment and Control samples was not perfect, but they were considered to have no bearing on the effects of treatment. The only area in which positive results were obtained was in a question related to general health. While Treatment subjects reported no change in health over time, Control patients reported good health less frequently over time. This result was considered insufficient to justify rejection of the null hypothesis.

In summary, results obtained from statistical analysis of the data were interpreted as negative. It was concluded that the supposed therapeutic benefits of LSD treatment in alcoholism and neurosis were not demonstrated by this experiment.

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