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LSD As A Therapeutic Tool*

Although lysergic acid is thought of as a hallucination-producing drug, it is also useful in the management of certain emotional illnesses.

THE initials L.S.D. indicate the drug lysergic acid diethylamide. This preparation can produce a "model" psychosis somewhat similar to schizophrenia. Although this is the most widely known feature of L.S.D., it is now being used more and more to treat mental illness rather than to produce it. In 1943, Hoffman⁶⁵ accidentally discovered the hallucinogenic properties of lysergic acid diethylamide. Since then, hundreds of papers† have been written on its effects, including its effects on men, mice, Siamese fighting fish and other animals.

In general, those working with the drug use a modification of two basic approaches: (1) as a psychoadjuvant (a term coined by Abramson¹⁰) referring to the use of the drug to facilitate psychotherapy. Relatively small doses, usually 25 to 100 micrograms, of the drug are used in multiple sessions with the major emphasis being placed on the psychotherapy. (2) as a *psychedelic* (a term coined by Osmond⁹⁴ for the "mind manifesting" experience patients undergo under LSD). One large and overwhelming dose, 200 micrograms, 300 micrograms or higher, of the drug is used in a single session—the emphasis being placed on the experience. The therapist is present for support, but discussion is withheld until after the experience.

There is a considerable difference⁵⁰ in the reaction to small doses as compared to large doses. It is not my purpose to discuss the differences. Abramson^{4,5} has published a number of verbatim sessions with small doses. Two books^{5,93} written by patients present interesting descriptions. *Myself and I*⁹³ by Constance Newland is an especially well done book. Both Sherwood¹¹⁷ and Chewelos³³ have published good descriptions of the overwhelming reaction occurring with large doses.

THE PSYCHOADJUVANT

LSD as an aid to more effective psychotherapy seems to have been inaugurated by Busch and Johnson²⁹ in 1950 at the St. Louis State Hospital in Missouri. There LSD was given to 29 patients. Actually, Guttman and Maclay,⁶⁰ as far back as 1936, had suggested the empirical use of a similar substance (mescaline). In 1951, Benedetti²¹ reported giving 50 micrograms to chronic alcoholics to effect psychocatharsis. Savage,¹¹³ in 1952, tried using it in daily doses as an antidepressant. Al-

*Presented at the American Psychiatric Association Annual Meeting, May 8, 1962 at Toronto, Canada. This work is from the Carrier Clinic in Belle Mead, N. J.

†A bibliographic listing of 129 references will appear in the author's reprints.

though he felt it to have no value as an anti-depressant, he suggested it might be helpful in psychotherapy. Frederking,⁹⁷ in 1953, found LSD to be an aid in the psychotherapy of 25 patients refractory to analysis. Katzenelbogen and Fang,⁷⁴ in the same year, used LSD for narcosynthesis in 20 psychotics, most of whom were schizophrenic. Sloane and Doust,¹²⁰ in 1954, felt LSD to be of questionable value in the treatment of 12 depressions and seven schizophrenics. In that year Anderson and Rawnsley¹⁸ report good results in six of 19 psychiatric patients.

Sandison¹¹¹ began a larger scale investigation at Powick Hospital in England. He published his first 36 cases in 1954. A two-year follow-up on 30 of these patients found 19 improved. Davis and Davis⁴⁴ that year used LSD on mental defectives. Although the drug had no lasting effect in itself, they felt it was useful in psychotherapy. Langer and Kemp⁸⁰ tell of 500 LSD sessions and find it "encouraging" in neurotics, schizophrenics, manic depressives and alcoholics. In 1957 and 1958, Feld, Goodman and Guido⁵⁵ reported all of 18 patients improving except those with chronic brain syndrome.

At a psychiatric day hospital, Martin^{91,92} found improvement in 45 of 50 chronic neurotics. Only nine of these relapsed after two years. Sandison,¹¹² in a very complete presentation, tells of 94 patients receiving psychotherapy under LSD. Forty-three per cent had either completely recovered or were greatly improved. A total of 66 per cent had received some benefit.

Lewis and Sloane⁸⁶ used LSD in the psychotherapy of their patients at Maudsley Hospital in London. They felt it a definite aid in psychotherapy and made note of its helpfulness in obsessional patients. Whitelaw¹²⁷ presents in detail a case of fetishism treated successfully with LSD and psychotherapy. In 1959, Cohen and Eisner⁴⁰ reported improvement in 16 of 22 patients with six to 16 months follow-up.

Many other reports of LSD's usefulness had appeared by April, 1959 when the Macy Foundation sponsored a conference on LSD in psychotherapy. The participants at the conference had, in total, treated 1099 patients. It was there that Peck⁹⁶ reported his series of 218 patients. He felt excellent results were obtained in 64 per cent and at least good results in 86 per cent. See references 5, 6, 82, 110 and 129.

One of the most thorough presentations is that of Chandler and Hartman³² in their series of 110 patients composed of many diagnostic categories, they found improvement in 45 per cent. Ling and Buckman⁸⁸ report 50 cases. Fifteen of these pa-

tients had recovered or greatly improved, and 76 per cent had at least moderately improved.

In addition to others who have found LSD useful in individual psychotherapy, Fontana,⁵⁶ Wjisenbeck,¹²⁸ Stevinn,¹²² and Rojo,¹⁰¹ tell of its facilitating communication among neurotic patients in group psychotherapy. Abramson and Sandison² also mentioned this. Bierer and Browne²⁵ and Tenenbaum¹²⁴ tell of its usefulness as an adjunct in group psychotherapy in 75 and 10 patients respectively.

THE PSYCHEDELIC EXPERIENCE

*M*ANY investigators are using a large single dose of LSD. The suggestion that a single overwhelming experience may be beneficial was first reported by Osmond⁹⁴ in 1957. It was his feeling that this experience may be so impressive as to effect changes for years to come. Osmond cited Hubbard, who treated many gravely ill alcoholics with one large dose. All seemed to benefit to some extent. Smith¹²¹ reports 24 alcoholics, of whom twelve were improved after a one-year follow-up. Hoffer⁶⁵ listed 60 severe alcoholics and said that 30 of them remained "dry" after a five-year follow-up. Chewelos³³ also reports of the usefulness of one dose of LSD in alcoholism.

MacLean⁸⁹ at the Hollywood Hospital in Canada, reported 100 patients who had been given one dose of LSD. Of the 61 alcoholics, 30 had considerably improved and 16 had "somewhat" improved. Of the 39 non-alcoholic patients, 22 improved greatly and another 13 had "somewhat" improved. In all, 52 per cent of these patients were greatly improved, and a total of 81 per cent had at least received some significant benefit. Ball²⁰ (another Canadian) has reported success in the treatment of 10 cases of sexual perversion with one dose of LSD. Sherwood¹¹⁷ cites 25 patients given one dose of LSD over a five-month period. Of these, 12 had "complete resolution" of the problem for which they sought treatment. Nine were improved and four had little or no improvement.

DISCUSSION

IT IS impossible to get the true picture of the therapeutic value of LSD by determining what per cent of patients it has helped. It is of greater value to understand *why* investigators utilize it in their treatment. Those using LSD in multiple doses as an *adjunct* to psychotherapy feel that it is so useful because: (1) It helps the patient to remember and abreact to recent and childhood traumatic experiences. (2) It increases the transference reaction while enabling the patient to discuss it more easily. (3) It "activates the patient's unconscious" so as to bring forth fantasies and emotional phenomena which may be handled by the therapist as dreams. (4) It intensifies the patient's affectivity so that excessive intellectualization is less likely to occur. (5) It allows the patient to see his customary defenses better and sometimes allows him to alter them. Because of these effects, many practitioners feel that psychotherapy progresses at a faster rate.

There have been many reports of patients receiving meaningful insight under LSD without the aid of a therapist. Some assume that this means that LSD experience in itself may be therapeutic. Chandler³² warns us, "The delusion that the drug in itself can produce a cure may be a temptation to the immature therapist." Yet there are many reports of patients receiving meaningful insight about themselves in an LSD experience *without* the intervention, participation or even presence of a therapist.

Those who administer lysergic acid in a single dose have as their goal, in the words of Sherwood,¹⁷ an overwhelming reaction "in which an individual comes to experience himself in a totally new way and finds that the age-old question, 'Who am I?' does have a significant answer." Frequently, this is accompanied with a transcendental feeling of being united with the world.

Many psychiatrists feel that an individual's kinship or lack of kinship with both his human and non-human environment are important to his psychological health. Some spectacular, and

almost unbelievable, results have been achieved by using one dose of the drug.

CASE HISTORY

A 20-year old man with a six year history of antisocial "acting out" (including the overuse of alcohol and narcotics) resulting in his being expelled from various schools, jailed on one occasion and being admitted to a state hospital for three months, came to the Carrier Clinic for treatment. He received no benefit from tranquilizers or psychotherapy. He was given one overwhelming dose of LSD. A one year follow-up finds him to be a good student, captain of the football team, chairman of the student council, and no longer "acting out"—making a better than average adjustment.

Results such as this are puzzling and controversial.

Ward,¹²⁵ in a paper describing similarities between psychodrama and the LSD experience, points out that, to some investigators, treatment failures are almost a relief since this kind of spectacular success does not fit current modes of thinking. The idea that a hallucinogenic experience may produce a therapeutic response requires an alteration of many peoples' frames of reference. Naturally, there is considerable resistance toward doing so. Some have even taken the drug to demonstrate that it has no value in psychiatric exploration. Cohen³⁹ tells of the dysphoric responses occurring within them.

LSD administered at different dosage levels to different patients in different environments is likely to produce different reactions. Some feel the changes produced in patients after taking LSD are due to such things as the milieu, suggestion or enthusiasm of the investigator. LeFever⁸¹ has compared the ritual developed around the use of LSD at a small, private psychiatric hospital to the puberty rituals of primitive tribes, the object of which is to help the individual in the struggle to find just who he is and what he is.

Most authorities have no trouble in accepting the thesis that a single emotional experience may affect an individual for months or years, provided the experience is traumatic. The idea that a single psychedelic experience may do likewise has been widely criticized.

Smith,⁶⁵ Hoffer⁸⁹ and MacLean¹²¹ individually found it about 50 per cent effective in the alcoholic. Interestingly enough, the statistics of those using one dose accompanied by no psychotherapy, at least at present, bear a striking resemblance to the statistics of those using psychotherapy.

Although there is considerable disagreement as to whether one overwhelming dose will help anyone, it is my feeling that it has. The question to me is not will a single dose help anyone, but rather: whom will it help, why does it help and for how long will it help?

CRITIQUE

VALID criticism may be made of much of the literature on LSD: (1) Descriptions of the patient are frequently vague. (2) The series of patients is often small. (3) Criteria for improvement are not spelled out. (4) The follow-up is too short. (5) There is lack of control groups (admittedly a difficult research design for patients receiving psychotherapy). (6) Often the ratio of patients improving is in the range of patients receiving benefit from any psychiatric treatment.

Let us note the severity of the illness in many of the series presented. Characteristic of these is Sandison,¹¹¹ who says of his patients: "All our cases were in danger of becoming permanent mental invalids, life long neurotics, or suicides." In many instances it seems patients are getting LSD when all else fails. Yet it is stated by most that the healthiest patients respond best.

Rates of effectiveness would be higher if the subjects were not such sick groups. It is, perhaps, because LSD has been given to patients most resistant to conventional treatment that we have come to see its usefulness in three of the most difficult diagnostic categories to treat—namely, the alcoholic, the personality disorder (including the sexual deviate) and the obsessive compulsive. The one-dose technic has been 50 per cent successful with alcoholics.^{30,33}

Lysergic acid has been successful in the treatment of personality disorders such as the one described above. Sandison,^{108,112} Ball,²⁰ Peck⁹⁶ and Chandler³² all have had some good results using LSD in the treatment of sexual deviations.

Many have found LSD particularly useful in obsessive-compulsive patients. When the series of Sandison,¹¹² Martin,⁹² Lewis,⁸⁶ Cohn⁴⁰ and Peck⁹⁶ are combined, the total is 75 patients; recovery or great improvement occurred in 52 per cent; and moderate improvement in 33 per cent. Thus, 88 per cent have been helped. Considering that the patients were frequently "chronic" and seriously ill, these results are very encouraging. It is my feeling that the multiple dose technic has proved superior with the obsessive-compulsive patient.

How safe is LSD? Certainly the patient may experience multiple somatic complaints. This occurs especially in subjects who use somatization as a defense. Sometimes the physical symptoms may become so severe as to mimic gross physical illness such as a coronary.³⁰ Such violent reactions, however, are unusual. Minor neurologic disorders, mild depressions or euphoria may persist for a few days.

Suicide following LSD has been extremely rare and has occurred only in seriously disturbed individuals. It is unfair to indict LSD as the cause. Prolonged psychotic reactions have occurred in only eight out of 10,000 cases, and all of these seem to have been in decompensating schizophrenics.

Most authorities feel that compensated schizophrenics, or markedly schizoid individuals, are risky subjects because of the possibility of precipitating a psychosis. Severe physical disease is a contraindication due to the exhaustion that may occur during the experience. Some feel that LSD should not be given to patients with liver disease inasmuch as it is excreted through the liver; however, others have given the drug to individuals with severe liver disease without adverse effects. Cohen,³⁹ after personal communication with 44 of 62 investigators, presents a critical review of the side effects and complications of LSD

therapy based on administration to 5,000 individuals who had received LSD or mescaline on more than 25,000 occasions. He concludes that with proper precautions LSD is safe when given to a selected group. All investigators agree that *before administering LSD the therapist should have had previous personal experience with the drug, including taking it himself*. This requirement plus the fact that it has not yet been released for general psychiatric use—along with the difficulty some have to fit it into their general frame of reference, are all factors limiting its more widespread use.

CONCLUSIONS

1. Lysergic acid diethylamide has been in therapeutic use for about 12 years. It is used in two ways; one large dose may be given to elicit a "psychedelic" experience; or it may be

given as an adjunct to psychotherapy in small multiple doses.

2. Although a large literature has been built up, much of it is unsatisfactory because of lack of specificity in describing patients, inadequate controls, and too few long follow-up studies.

3. The drug is often used as a last resort on very sick patients who have responded to nothing else. Therefore, good effects take on added significance because of the poor selection of subjects. Results have been especially encouraging in personality disorders, including sexual deviates and alcoholics. Good results have also been reported in obsessive-compulsive patients. Many therapists have found that LSD speeds psychotherapy in neurotics.

4. The drug has been disappointing in schizophrenics.

5. LSD has a wide safety margin and in the hands of experienced investigators does not produce hazardous side-effects.

228 Kings Highway East

Survival After Heart Attack

What is the chance of survival after a heart attack? Today, the odds are about 20 to one that the patient will survive the episode. Sigler, in the *American Journal of Cardiology* for April 1962 (9:547), comments that the likelihood of long-term survival following a heart attack has markedly improved in the past 35 years.

Up to 1930, immediate mortality rate was as high as 20 per cent. "Since 1950 the immediate average yearly mortality rate seldom surpassed five per cent, and it is usually less," he said. In 1,700 patients observed over 34 years, Sigler's findings "indicate that the prognosis of myocardial infarction is far better than it was hitherto considered to be."

In the current study he reported on 255 patients who lived 10 years or longer following

acute myocardial infarction. Age at onset of the first attack in the group was between 50 and 60 years of age. About 65 per cent of the men and 89 per cent of the women still living have already lived 10 to 14 years or longer since their first attack. "A large proportion of patients have surpassed the average life expectancy," he continued. "Only two of the patients died during a second infarction; the rest are either still alive or died long after a second or even third attack."

Return to work after recovery "does not affect and may even improve the prognosis," he said. Only five per cent of the men had to give up work because of the heart disease. Retirement because of illness was most frequent in manual workers. All women patients returned to their housework.