The Use of LSD-25 in the Treatment of Alcoholism and Other Psychiatric Problems

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F rom earliest recorded time there is evidence that man has sought means to heighten and enhance understanding. He has searched for chemicals which allow him to transcend himself. Primitive man necessarily had to employ impure preparations or natural products such as cohoba and peyote, which are only two of a large number of materials so used in various times and places. Modern man need no longer depend on crude extracts but can use pure chemicals. The recent introduction of pure psychedelic (mind-manifesting) drugs has opened vast new horizons in psychopharmacology. The availability of these pure compounds, including d-lysergic acid diethylamide (LSD-25), mescaline, psilocybin and many others, has made possible controlled programs of psychedelic therapy and research. In the series of 100 cases to be described below we have used LSD-25.

The history of the discovery and synthesis of these drugs and their experimental and therapeutic uses have been reported extensively and need not be repeated here. One of our group pioneered in the use of a psychedelic experience in alcoholism and

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evaluated the effect of LSD-25 in a large series of normal subjects. In 1953 he was using an overwhelming-dose experience, at that time up to 500 gamma, in alcoholics and normal subjects. The results were encouraging and led to communications with H. Osmond and A. Hoffer. Subsequently Osmond (1) reported in 1957 on early work in Saskatchewan. He stated, "Our work started with the idea that a single overwhelming experience might be beneficial in alcoholism." This possibility had also been suggested by William James and H. M. Tiebout. Studies in Saskatchewan have centered around the treatment of alcoholism as reported by Smith (2) and these preliminary trials were followed up, expanded and reported on later by Chwelos, Blewett, Smith and Hoffer (3).

The results of these earlier studies appeared to be sufficiently interesting to warrant the large-scale study which we have carried out.

**METHOD**

Our particular treatment method is an attempt to make the best use of the therapeutic potential of the drug.

*Preparation of Subject.* When the patient is admitted to the hospital he is asked to write his autobiography. A few general headings are suggested. This we consider a part of the therapeutic process, in that it focuses his thinking on himself and often reveals, perhaps for the first time, many facets of his personality which he may never have brought into the open before. From the autobiographical material the psychiatrist screens out pertinent matter to which he refers in eliciting a concise psychiatric history.

Once the autobiography and history are completed the therapist has several preparatory sessions with the patient during the 2 days prior to the special treatment day. The emphasis here is on those aspects of the self which could emerge as barriers to a constructive or integrated LSD-25 experience. A half hour is spent with the patient shortly before he goes to the treatment room.

*The Group Technique.* Our method employs a professional therapeutic group which acts as a stabilizing influence on the patient, providing him with support. Each group member contributes a unique pattern of temperament and personality. We suggest that it may be possible for the patient to see reflections of the different facets of his own personality in each of these individuals. We think a group of four is best. Generally this includes the psychiatrist (as therapist), a psychologist (cotherapist), a psychiatric nurse and a music therapist. Ideally the group would be made up of two men and two women. Unless all of these have firsthand knowledge of a successful psychedelic experience they tend to become
bored or confused during the session and are unable to offer support to the patient under circumstances they do not understand. This tends to upset and confuse the patient.

We do not use the same group techniques as those described by Blewett and Chwelos (4), who have experimented with the therapist taking the drug with the patient. This, they believe, increases the empathic bond between patient and therapist. In our technique the group is usually somewhat larger and participates without taking the drug. The advantages in our method are threefold.

Firstly, the patient who takes the drug alone is less distracted from intense self-scrutiny and self-evaluation than the subject who is one of a group all directly participating in the experience.

Secondly, we consider it important that the therapist refrain from projecting his views upon the subject, and in a group session where all participants have taken the drug it is impossible to avoid this.

Thirdly, the function of the therapist is enhanced when he is free to act at times as an objective observer and so modify his approach to the patient. Such objective assessment for therapy or research purposes is only possible when the therapist is not taking LSD-25 himself.

According to the technique described by Blewett and Chwelos (4), the therapist and other members of the group may be required to take LSD-25 several times weekly. We do not think addiction a danger, as less rather than more of the drug is needed in those who have had successful experiences with it. Their technique may have a value in the broadening or expanding of individual awareness and understanding of interpersonal relationships in groups of individuals who have gained self-acceptance through previous experience.

Setting and Equipment. The environment in which treatment is given is a significant factor, for just as the presence of a select group lends support to the patient, so do his physical surroundings. A quiet room is needed to prevent distraction. The appointments of the room—drapes, floor coverings and furnishings—should be tastefully combined with floral arrangements and pictures to create a harmonious atmosphere. The dominant theme of the décor should be composed of various universal symbols. The patient will go through a good part of the experience lying down, consequently comfortable facilities are required. Technical equipment should not intrude upon the atmosphere of the room. Adequate measures should be prearranged to avoid the disruptive influence of interruptions during the session.

Dosage. We use doses varying from 400 to 1,500 gamma given by mouth. The initial dose depends on the psychiatric appraisal of the subject's defense mechanisms. We think that the closer a person is to self-acceptance the less the dosage required, and we use this as a working guide. We usually start with a dose of 400 gamma; experience as the session progresses is used to decide whether and when more is required.
If after 1 or 2 hours the patient shows signs of anxiety because he is holding on desperately to his reality ties, more LSD-25 is needed to induce the psychedelic experience.

Some therapists have suggested gradually increasing doses over a number of treatment sessions, believing that this reduces the patient's fear. We have found, however, that small-dose techniques are less effective as they do not lead to a full realization of the therapeutic potential of the experience. Small doses do not alter the habitual frames of reference which may initially have induced the patient's problems, and often reinforce those same unfavorable patterns of thinking and feeling which constitute his problems.

Administration. LSD-25 can be obtained as a clear, tasteless, odorless liquid. In our procedure the dose is measured into a glass of water and taken orally. The drug may also be obtained in the form of an oral tablet or intravenous solution.

Procedure. The patient comes to the treatment room at 8 A.M. where he finds the group convened and ready to receive him. Rapport is established through general conversation over coffee. At 8:20 A.M. the drug is administered and the therapist explains to the patient the functions of the group, the setting and the symbols. The patient's questions are discussed by the group. Variation in the psychiatric problem and the individual's tolerance for the drug make each experience somewhat unique. The first symptoms may appear within 15 minutes to an hour. Mild physical discomforts may be experienced during the first hour or two. The height of the experience is reached between 10:30 A.M. and 12 o'clock.

A complete time-indexed record or transcript is kept by one of the attending therapists. From about 10:30 A.M. to 2 P.M. most subjects are quietly engaged in intense self-scrutiny. At about 2 P.M. or 3 P.M. the subject will begin trying to conceptualize his experience and at this time the therapist can aid him greatly by nondirective methods. About 4 P.M. the patient returns to his room. A counselor trained in psychedelic therapy remains with him until bedtime. This can be one of the most valuable portions of the session. The process of applying what he has learned begins in the treatment room and is further expanded in his relationship with the counselor. It is important not to shut down the integrative process, while it remains active, by the use of chlorpromazine or the like. The patient remains in the hospital overnight. Before discharge the next day he is interviewed by the therapist and is asked to give a written account and an assessment of his experience, using the Blewett Psychedelic Scales (4).

During the days or weeks following the experience the patient feels the need to recapture his experiences and enlarge on them. Alone, or aided by the therapist, he will gradually realize the significance of the material and learn the cause of his disturbances.
Evaluation

The assessment of treatment results was made on the basis of scores given in the areas of interpersonal relationships, work habits, self-appraisal and appraisal by relatives and friends. Signs and symptoms of psychosis, as well as drinking patterns, were scored where applicable. These scores were combined to give a composite individual score which was rated as follows:

1. Much improved: In all cases this means there has been marked improvement in interpersonal relationships, work habits, self-acceptance and family relations. In the case of the alcoholic it also means “complete abstinence” or marked improvement in drinking pattern compared to the 12-month period prior to therapy. (Some of the alcoholics will put the treatment to test by attempting to drink again; usually they find it is impossible to carry on as before. Where this happens only once, a patient is not excluded from this category.) In the psychoses it means complete remission of signs and symptoms.

2. Improved: An easily recognizable improvement in the rated areas, and in the alcoholic a definite reduction in alcohol intake, compared to the previous 12 months, as well.

3. Unchanged: No fundamental changes in the rated areas. Patients showing only temporary improvement were rated in this category.

The Sample

The present sample includes 100 patients comprising 61 alcoholics and 39 with other psychiatric disabilities.

The 61 alcoholics were drawn from a total of 492 patients admitted to the Hollywood Hospital over a period of 18 months for alcohol intoxication. These were considered to be difficult cases: 59 had experienced typical delirium tremens; 36 had tried Alcoholics Anonymous and were considered to have failed in that program. The average period of uncontrolled drinking was 14.36 years. The average number of admissions to hospital for alcoholism during the preceding 3 years was 8.07. It is believed, from these facts, that the prognosis of this group would be unfavorable.

The 39 cases of psychiatric disabilities uncomplicated by alcoholism, as well as the alcoholic cases, are classified diagnostically in the tabulation of results below.

Collection of Data

The following data have been collected on the sample to the time applicable in each case.

A. Pretreatment Data
   1. An autobiography.
   2. A psychiatric history and notes of pretreatment interviews.
3. Clinical examination, including certain blood chemistry studies to be discussed in another paper.

B. During-Treatment Data
1. A time-indexed record of the treatment session by one of the therapists.
2. Notes by the nurses before, during and after the treatment session.

C. Follow-Up Data
1. A time-indexed record of the post-treatment period of counseling.
2. The patient's description of his experience, written the day after treatment.
3. Blewett's Psychedelic Scale A, completed the day after the session.
4. The psychiatrist's immediate post-treatment impressions.
5. Notes from psychiatric interviews 1 week and also 3 months after therapy.
6. Blewett's Psychedelic Scale B, completed 3 months after therapy.
7. Follow-up data collected by the counselors.
8. A questionnaire completed by the patient 6 months after therapy.
9. A psychiatric interview and appraisal at the end of 1 year.

Results

Follow-up has been carried on for periods ranging from 3 to 18 months, the median being 9.09 months. Data dealing with factors such as those which may influence treatment, prognosis, etc., have not as yet been analyzed, but will be reported later. In the present paper the tabulated results deal only with follow-up information. The results are summarized in Table 1.

The alcoholic subgroups which responded best to treatment were those classed diagnostically as "personality trait disturbances" and "addiction without complication." None of the four patients classified as "addiction with chronic brain damage" showed any change. The category "sociopathic disturbance" is used to describe those who exhibit chronic difficulty in conforming with social expectations and the results in this group are fair in view of the usual poor response to treatment.

It can be seen from Table 1-B that of the psychiatric disorders not associated with alcoholism, "personality trait disturbances" and "anxiety reaction neurosis" responded very well to therapy. Other diagnostic categories are numerically insignificant and, therefore, conclusions are not possible. However, the patient with a "manic-depressive depressive psychosis" was a man of 75 years whose condition had failed to respond to medication and electroconvulsive
TABLE 1.—Results of Treatment, by Diagnostic Category

<table>
<thead>
<tr>
<th></th>
<th>No. of Cases</th>
<th>Follow-Up (average months)</th>
<th>Much Improved</th>
<th>Improved</th>
<th>No Change</th>
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<tr>
<td></td>
<td>M</td>
<td>F</td>
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<td></td>
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<tr>
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<td>-</td>
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<td>-</td>
<td>6</td>
<td>0</td>
<td>0</td>
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<tr>
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<td>50</td>
<td>11</td>
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<td>16</td>
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<td>B. Nonalcoholics</td>
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<td>11</td>
<td>0</td>
<td>1</td>
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<td>8</td>
<td>15</td>
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<td>9</td>
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<td>depressive psychosis</td>
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<td>10</td>
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<tr>
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<td>Composite Totals</td>
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<td>34</td>
<td>9.1</td>
<td>52</td>
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</table>

therapy. He responded to the LSD-25 experience and has maintained his recovery for 1 year.

Side Effects. The side effects observed during treatment with LSD-25 vary widely. The psychiatric problem involved, and the individual's defense mechanisms, modify the picture. The more typical side effects are a transient nausea, mild headache, and mild gastric distress which may occur from ½ to 2 hours after taking the drug.

Examples of the Treatment Process

Case No. 29. This 52-year-old housewife had been drinking steadily and heavily for years. Her husband, a periodic drinker, had died of alcoholism, and the patient herself stated that she drank as much as she could get hold of. She was upset when confronted with the need of writing an autobiography, and was unable to write it. She was unwilling and unable to give a coherent biography. Psychiatric examination 3 days prior to therapy showed her to be somewhat disoriented at times, with poor memory and inadequate grasp of her situation. Considerable deterioration appeared to be present. Her affect was quite shallow. Five days prior to therapy she was disoriented as to place and her speech was slurred. Her conversation was somewhat disconnected.
This patient showed a confused response to 600 gamma of LSD-25 and developed great anxiety. She frequently complained of feelings of heat, and her chief responses to occasional queries of how she was getting on were, "Oh, I'm fine" or "I'm having a lot of fun." Her speech continued disconnected, and it was impossible to enter into any type of therapeutic relationship with her. There was no improvement in her mental condition on the day of discharge, 6 days after the psychedelic experience. Reports received a month later showed that after brief improvement she was drinking again. There has been no improvement 9 months later. Result: no change.

Case No. 43. This 59-year-old man, a periodic alcoholic for at least 25 years, and a member of A.A. for 15 years, first became intoxicated at the age of 22 and promptly beat up his best friend. He had delirium tremens on three occasions, and was hospitalized numerous times for intoxication. He believed that he had been able to help others in A.A. but not himself. In the past year he had developed kleptomaniac tendencies.

Following the oral ingestion of 400 gamma of LSD-25 he developed a moderate degree of tension and felt he was fighting himself in attempting to rid himself of his "egotism." His speech was, on the whole, rambling and unintelligible. Four hours after ingestion of the drug he complained of a few perceptual distortions in the visual field. He spoke of having experienced a plane ride during the LSD-25 experience.

The patient resumed heavy drinking within 6 weeks and was readmitted to the hospital twice in the next 4 months. He has experienced more guilt after drinking bouts than prior to the LSD-25 experience. Result: no change.

Case No. 5. This 64-year-old real estate salesman grew up in a home where spirits were always present but never taken to excess by the parents. He became addicted to alcohol while a young soldier in World War I. During the depression years he was only an occasional drinker. He had two admissions to a mental hospital on account of alcoholism and extremely disturbed behavior. A lobotomy was considered but the patient "argued" his way out of it. He felt that after this he gradually developed a pattern of negative thinking with feelings of extreme resentment toward his family, bitterness and guilt.

After the ingestion of 400 gamma of LSD-25 he developed feelings of apprehension and oppression, and of being under the influence of liquor. He was gradually able to review in great detail the emotionally disturbed events of his life, and to examine fully his own systems of values. He was able to give himself completely to the experience, and for the first time in his life he experienced a feeling of oneness with others and a sense of unity in all things. Since the LSD-25 experience, 16 months ago, he has enjoyed contented sobriety and has been a regular attendant at semimonthly meetings of patients who have undergone the same treat-
ment. The patient feels that his whole outlook on life has changed to a constructive one. Result: much improved.

Case No. 2. This 44-year-old salesman of high normal intelligence had used alcohol to excess for over 15 years. He had previously managed to achieve 10 months of sobriety in A.A. but had "slipped" into a heavy drinking pattern again. He was becoming morose and extremely tense.

After the ingestion of 400 gamma of LSD-25 the patient felt adverse effects in the form of increasing tension. Gradually he went through a process of concentrated self-analysis. He said, "This experience has given me quite an awakening and a real good look at myself. It seemed to clear a lot of garbage away. I can see and appreciate things about myself I never knew existed before." Seventeen months after therapy the patient said, "Although I know the experience is not a 'cure-all' it does make you see ways of enjoying life and accepting the idea that alcohol is not a necessity." The patient also felt that although he had enjoyed sobriety for nearly a year and a half, yet it was necessary to "work on oneself" every day in the way of continual adjustment. Result: much improved.

Discussion

The ingestion of a therapeutic dose of LSD-25 produces profound alterations in perception, e.g., visually colors become brighter and patterns become more clearly defined. These changes occur within an hour and become more marked during the ensuing 2 or 3 hours. All perceptual modalities show parallel changes.

Because an individual's concept of reality is based upon his sense experience it follows that if these sense experiences be altered, his reality ties are lost to him. This includes his self-concept. A state is induced in which the unifying aspects of the individual's personality cease to function. In an uncontrolled setting, this reduction of self-concept to the point of depersonalization often results in confusion and panic. This is why LSD-25 was initially classed as an hallucinogenic or psychotomimetic (psychosis mimicking) agent. But if the same process can be controlled, an experience can be developed in which the usual screen of rationalization is much reduced and may even be almost eliminated. The therapeutically controlled situation permits and helps the person to find meaning, reality and structure in the unusual experience. When the unhabitual perceptions are organized the individual undergoes what Osmond (1) has referred to as a psychedelic (mind-manifesting) experience. It is this experience with its increased insight, its expanded awareness, and its altered frames of reference, that is the therapeutic vehicle.
LSD-25 is not a medication in the usual sense. It is simply a triggering mechanism that initiates an experience lasting 12 hours or more. Haley (5) reports that most of the drug is out of the system in 1 hour and 20 minutes. Since it is, therefore, the experience and not the medication that is therapeutic, the treatment situation or milieu becomes the overwhelmingly important factor. It must permit the person to find new reference points, and it becomes the function of the therapist to provide these in such a way that they will be understandable to the patient and conducive to his emotional growth.

The therapist needs to understand these experiences himself, else it would be a matter of the blind leading the blind. This understanding can only be gained by taking the drug and learning how to control a successful experience. Osmond's Golden Rule, "You start with yourself," is of the utmost importance in work utilizing the psychedelic experience for therapeutic ends.

In guiding such an experience the therapist must refrain from projecting his own solutions to problems upon his patient. On the other hand, if he is to help the patient find any structure in the experience he must in some way assist in the provision of a new frame of reference. A way of accomplishing this without projection, developed by one of our group is to provide universal symbols to which the subject may attach his own meaning. Through these symbols he may become aware of those archetypal or universal meanings which underlie all human feeling and thinking. The symbols provide intermediate points of reference creating a bridge between the habitual self-concept and a new concept based on self-understanding and self-acceptance. This process might be termed a transintegrational experience and the method, transintegrative therapy.

As this new self-concept develops, the need for habitual inappropriate defense mechanisms is reduced and the patient can now relate to another person more directly, with less defensive screening. He becomes aware that self-acceptance and anxiety are mutually exclusive. He realizes that past difficulties have grown out of mistaken attempts to use both while disavowing the responsibilities of the first and the consequences of the second.

The psychedelic experience provides the opportunity for extensive

A. M. Hubbard.
emotional reeducation. Just how well this opportunity is used de­
pends not only on the motives of the patient but also on the skill of
the therapist.

Self-acceptance may need some elaboration. The subject by ac­
ceptance does not necessarily accept his own acts or those of the
people he accepts. It does not relate to acts any more than a par­
ent’s affection for a child relates to the acts of the child. We have
examples of this among those of our patients who have been engaged
in socially unacceptable vocations, who have found self-acceptance
but have subsequently decided that they were unable to fit the new
self into the old vocational pattern. This illustrates as well, as was
mentioned previously, that self-acceptance involves new awareness
of responsibility.

We believe that the psychedelic drugs may constitute another
door, which investigators may use, for approach to emotional prob­
lems from the area of emotion or cause. The next step is to develop
better ways of classifying or measuring emotion.

In our opinion the fears connected with these drugs which have
arisen and have been reported, stressing dangers of cultism and
fanaticism, or thrill seeking, are overrated. While LSD-25 can amaze
and even overwhelm the individual through changes in perception,
it has a built-in control. Attempts to misuse it are self-limiting be­
because it can produce extreme physical and psychological discomfort
without any special danger.

**Summary**

A report has been presented on the therapeutic effects of a
psychedelic drug (d-lysergic acid diethylamide) in 100 patients—
61 alcoholics with poor prognosis, and 39 nonalcoholics with other
psychiatric disabilities. The follow-up period ranged from 3 to 18
months.

The therapeutic method, utilizing the single overwhelming ex­
perience and stressing the importance of technique and treatment
milieu, has been described in detail, and theoretical considerations
have been discussed.

The results of treatment, as recorded, showed that 30 of the alco­
holics and 22 of the other psychiatric patients were much improved;
an additional 16 and 13 of the alcoholics and others, respectively,
showed some improvement. The results were best in the alcoholics
without complications, in alcoholism with personality trait disturb-
ance, and in the nonalcoholics with personality trait disturbance or anxiety reaction neurosis. Other diagnostic categories were not studied in sufficient numbers to permit drawing of inferences.

The conclusion is reached that LSD-25, used with the described treatment method, is effective in the treatment of alcoholism and the psychiatric disabilities categorized as anxiety reaction neurosis and personality trait disturbances.

REFERENCES