The Hypnodelic Treatment Technique

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Since the initial report of the use of LSD (lysergic acid diethylamide) in the treatment of mental illness in 1950 by Busch and Johnson (3), this drug has been used in many different ways to treat various psychiatric illnesses. At this time there is no consensus of opinion and, more importantly, not enough valid data to enable us to know whether any of these treatment techniques has a beneficial effect in any of the disorders. Further, the choice of the technique used is often based on the therapist's biases and previous experience (or lack of it) or on an extension of an untested or unproven theoretical system. The reasoning leading to the development of a technique or the substantiation of hypotheses implicit in its use are almost never discussed or reported.

It is the purpose of this paper to document the development of a new treatment technique employing LSD, describe the reasoning underlying its use, report briefly results of the technique in the treatment of narcotic drug addiction, and make explicit some hypotheses about the possible mechanisms of action to account for the observed results.

Development of the Technique

The original impetus for the development of the hypnodelic treatment technique stemmed from the combination of a need to find improved methods of treating narcotic drug addict patients and a series of serendipitous observations and events. In July 1962 the authors began a two-year assignment in the Commissioned Corps of the Public Health Service at the Federal Hospital for narcotic drug addicts at Lexington, Kentucky. Fresh from residency training and with the on-going program at the hospital as a model, the more usual modes of psychiatric treatment, that is, individual and group psychotherapy were undertaken with a number of addict patients. The results were not particularly gratifying

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either to patient or therapist. In most cases, the patients were not well motivated for therapy. In fact, attendance at therapy sessions tended to be poor and, against medical advice, discharges from the hospital were quite prevalent. The large number of patients to be treated, the short period of time in which to treat them, the poor motivation of many of the patients for psychotherapy, and the rather disillusioning reports of follow-up studies of narcotic drug addicts discharged from Lexington (11, 6) made us pessimistic about currently employed therapeutic procedures.

Because of previous interests, one of the authors (A.M.L.) began to explore the efficacy of group hypnosis as a therapeutic technique (18) and later investigated the role of suggestion in the production of narcotic drug effects and withdrawal symptoms (19). At the same time, the other author (J.L.) began a study to isolate the factors or determinants associated with the decision of patients to leave the hospital against medical advice (15).

The serendipitous observation, which was to introduce us to the therapeutic potential of LSD, was made by Dr. David Rosenberg, then on the staff of the Addiction Research Center located at the U.S.P.H.S. Hospital at Lexington. He noted that some patients who received LSD in a double-blind pharmacologic study of tolerance and cross-tolerance to psychotomimetic drugs (no therapeutic intent involved) spontaneously claimed to have changed their views and outlook toward life as a result of the experience. After talking with one of these patients and being impressed by his story, a literature survey of LSD effects was made; we found that many of the claims of therapeutic benefit made by this patient were similar to claims made in the literature.

Stimulated by this finding, we talked with Dr. Harris Isbell, then Director of the Addiction Research Center, who recalled that over the years there were a few patients who, while participating in psychotomimetic drug studies, felt that their outlook toward life and many of their values (including their attitudes toward drugs) showed marked change in a socially desirable direction.

With this additional information, we were encouraged to investigate the potential usefulness of LSD in the treatment of narcotic drug addicts. Before employing LSD in treatment, however, we found one problem readily apparent. Although some of the patients who had received LSD reported therapeutic benefit they represented only a small fraction of the total number who had taken the drug. Therefore, if the drug was to be employed for therapeutic purposes, it would be essential to develop techniques which would enhance the propensity for a therapeutic effect. Moreover, in terms of what was already known about the hallucinogenic drug experience, we could not see much therapeutic benefit being derived from the illusions, hallucinations, or nirvana-like feelings which frequently accompany administration of the drug. Our own bias was that in order to maximize the possibilities for therapeutic success, it would be necessary to control the LSD experience and divert or channel whatever therapeutic potential it might possess toward the more conventional notions of psychological therapy, such as directing the patient's attention to his present

problems and trying to get him to understand them in terms of his previous conflicts.

With these considerations as a starting point, and the previously described work as an antecedent, it is not surprising that the possibility of using hypnosis to augment the therapeutic potential of LSD was considered. From the previous experimental work in modifying narcotic drug effects (19), we hypothesized that hypnosis could be used to modify the LSD experience and we would have to structure it in ways which might be of therapeutic benefit. A subsequent review of the literature with regard to the use of hypnosis to control the LSD reaction revealed that this use of hypnosis had been suggested previously by Aldous Huxley (12), and that Fogel & Hoffer (8) had used hypnosis to halt and reinstate LSD effects in a single patient. Gubel (9) reported on the similarity between the hallucinogenic and hypnotic experience, but no previous use of hypnosis to directly control an LSD experience for therapeutic purposes was reported.

Early Results

To test this new treatment approach, we embarked on a pilot study with twelve narcotic drug addict patients (16). Frankly, we were surprised to see just how well hypnosis could be used to control, modify, and direct the LSD experience. Many of the patients made dramatic claims of therapeutic benefit, expressed a strong conviction that they should remain abstinent, professed marked symptom relief, and claimed to have a new lease or outlook on life. Since this study was uncontrolled, and only developmental in nature, we next undertook a controlled study in which seventy narcotic drug addicts were assigned randomly to five brief treatment techniques employing LSD, psychotherapy, and hypnosis. The results of this study revealed that patients treated with the hypnodelic technique (LSD + hypnosis + psychotherapy) for a single session showed greater improvement than patients treated with a single session of a) LSD + psychotherapy, b) LSD alone, c) psychotherapy, or d) hypnotherapy when evaluated two weeks and two months after treatment (20). In addition, a more marked alteration in consciousness was obtained during the hypnodelic treatment session than with use of any of the other techniques (17). Since the detailed reports of these studies are to be published elsewhere, we would now like to describe the hypnodelic technique and some of our hypotheses about its mechanism of action.

Description of the Technique

The term "hypnodelic" is a contraction of the two terms "hypnosis" and "psychedelic" and would seem to be appropriate since it indicates the technique and class of drug used in the treatment.

The following is a description of the technique as it was used in the studies conducted at the U.S.P.H.S. Hospital at Lexington, Kentucky. Each patient was seen for two sessions, each lasting two to three hours. The initial session was used as a preparatory or training session and was

divided into two parts with the first half devoted to gathering psychiatric information which would be used in the second treatment session. Emphasis was placed on chief complaints or symptoms, past history (especially family and marital), self description, and an evaluation of most frequently used defense mechanisms. Following the interview, the patient was "trained" in hypnosis by using a high eye fixation induction technique. Thus, the patient had some idea of what to expect during the next treatment session, and the therapist had an estimate of the patient's response to a hypnotic induction procedure.

The second session was held from one to ten days after the preparatory session. Shortly after breakfast the patient came to the therapist's office where the previous training session had been held (ordinary clinical office, no special visual or auditory appointments). After being seated, he was given a glass containing LSD (lysergic acid diethylamide tartrate) dissolved in distilled water. The dosage used was 2 mcg per kilogram of body weight and usually amounted to a total dose of 125-200 mcg. Following ingestion of the drug, the patient was allowed a few minutes (less than five) to "settle down" and to see if he "felt" any effects of the drug. Immediately after this a high eye fixation hypnotic induction procedure was administered for approximately the next 45 minutes, which is about the time it takes for LSD to begin to have its effects. In this way the hypnosis and LSD effects are brought on together in a smooth, natural sequence. Technically, we believe this is a much more efficient way of producing the "hypnodelic state" than by first allowing the LSD state to develop and then trying to superimpose a hypnotic trance. Many of the experiential aspects of the LSD experience seem to be quite similar to the hypnotic experience (9) and this is taken advantage of in using the hypnodelic technique.

When the patient was both hypnotized and under the influence of the drug, the therapist engaged in an intensive psychotherapeutic session with the patient. The detailed information obtained during the previous interview was used to re-examine particular problem areas, encourage abreaction, and make direct interpretations to the patient. Although it is difficult to describe exactly the type of therapy that was conducted, the therapists' orientation toward psychotherapy came closest to the description of "insight-interpretative" therapy given by Ellis (7).

The entire session lasted about two and a half to three hours and at the conclusion the patient was given suggestions to keep thinking and working on his problems and to remember all that transpired during the session. The patient was awakened from hypnosis and then taken to a private room on a medical ward where he was observed frequently, but essentially left alone. Patients continued to actively examine their problems during the afternoon and evening. If they were unable to fall asleep by 11:00 P.M., 200 mg of pentobarbital was administered. The next morning patients were seen briefly by the therapist to be sure that all drug action had subsided, and then returned to their regular hospital routine.

Undesirable side effects or untoward reactions were surprisingly infrequent. The most common was insomnia on the night following the

treatment session, but this was readily controlled with barbiturate sedation. Headache, transient nausea, dizziness, and diarrhea were seen in isolated cases. Psychological side effects such as transient anxiety, mild agitation, and depression were also seen. However, it was not necessary to use chlorpromazine or any other agent to terminate a session because the patient became "too disturbed." One transient paranoid reaction was noted, but subsided within seventy-two hours after therapy. Three weeks following a therapy session, another patient showed an accentuation of psychopathology which required her transfer to a more closely supervised ward for approximately eight weeks.

In general, it was felt that the number of undesirable effects was minimal and could be managed with routine hospital procedure.

Possible Mechanisms of Action

Although it may seem almost magical that a single or a few treatment sessions can give rise to substantial therapeutic change, there are, in fact, numerous reports by investigators using hypnosis (2), narcotherapy (13, 25), psychotherapy (10, 14, 24, 26), and "psychedelic therapy" (1, 4, 23, 28, 29) that these changes do occur. Schmiege (27) has pointed out that many accept the fact that certain traumatic incidents occurring early in a person's life may produce serious psychological consequences, but for some reason there are only a few who are willing to entertain the hypothesis that one or several profound therapeutic experiences can produce marked and lasting improvement in patients.

With respect to hypnodelic therapy, we should like to make it clear that we do not believe that this therapy works in any magical or mystical way nor are *deus ex machina* explanations necessary to explain its mode of action. We feel that a rational explanation can be arrived at by considering the psychological effects induced in the patient by the interaction of LSD and the particular therapeutic context.

Concerning the role of LSD with respect to therapeutic change, it is our impression that the primary contribution of this drug is its ability to produce a mental state in which thoughts and feelings assume an exaggerated sense of meaning, importance, and significance. While under the influence of the drug, patients seem to have a prolonged form of "eureka" or "aha" experience whereby old ideas may be seen in a new light ("insight") and new ideas become more readily accepted. These ideas tend to become imbued with a new sense of intellectual and emotional appreciation. Recently, Ditman (5) reported a similar explanation in claiming that "the drug-altered state appears to be one of greater *impressionableness*, if internal and external stimuli take on a greater valence in awareness." Thus, although the authors' approach to therapy was predominantly an analytic, insight-interpretive one, we were not so much struck by the "confirmatory evidence" produced by patients for our theoretical orientation as we were by the increased meaning and significance which the patients attributed to our explanations and interpretations.

Now, in what ways might the addition of hypnosis to LSD increase therapeutic effectiveness? Since hypnosis is induced during the thirty

minutes to one hour preceding the onset of drug effect, the patient can achieve a state of relaxation and seems better able to "give in" to the ensuing experience. During the hypnotic induction, the patient "works" closely with the therapist and this relationship tends to be maintained throughout the drug experience. Because of the "demand characteristics" of the hypnotic situation (21, 22), it is easier to structure, direct, and shape the session in ways the therapist deems important.

The context of hypnosis seems valuable in another way in that it is not necessary for the patient to be strictly logical throughout the session. Contradictory or ambivalent thoughts or feelings, for example, can be entertained and better understood rather than being summarily dismissed. Moreover, the patient's ordinary conception of time tends to change; and he seems better able to make and understand connections between his present feelings and behavior and certain traumatic or unhappy incidents which occurred during his past. In general, then, the context of hypnosis tends to make the acceptance of the unexpected, "non-rational," or novel more permissible or even possible.

Although the authors conducted therapy using a psychoanalytic framework, we do not believe that this particular orientation was essential for successful therapy. The particular theoretical orientation (Freudian, Jungian, Adlerian, Existential, etc.) seems less important than the necessity of providing patients with a framework or structure in which their problems and difficulties can be understood. The particular formulation of a patient's problems tends to serve as a "nidus" upon which he can structure and organize his thoughts and feelings.

It was noted that the treatment did not terminate with the completion of the three-hour hypnodelic session. After returning to their rooms, patients continued thinking and working on their problems and experiences, and it was during this time that many began to feel "the pieces of the puzzle were fitting together." For many, the treatment experience remained vivid in their minds and tended to induce a period of introspection and consideration of their problems which continued throughout a two-month evaluation period.

Also, with respect to possible mechanisms of action, it is interesting to note, as reported in a separate paper (17), that during hypnodelic therapy a significantly greater "alteration in consciousness" is produced in patients compared with any of the other techniques used. Whether there is a causal relationship between the degree of alteration in consciousness and the amount of therapeutic change is an intriguing hypothesis.

Conclusion

Thus, hypnodelic therapy would seem to offer much promise in the field of psychotherapeutics. However, it should be made clear that the authors do not consider this the only way in which therapy with LSD should or can be conducted. It appears to be a useful technique, but many controlled and long term follow-up studies will be necessary to determine its efficacy and usefulness compared to other forms of psychedelic and psychiatric therapy.

DISCUSSION

Dr. Dahlberg: What do you speculate is the role of hypnosis in intensifying the results of psychodelica?

Dr. Levine: This hypnosis was induced about thirty to forty-five minutes before the LSD had actually had its major effect. The patient is working with the therapist during this time in terms of the hypnotic induction. We feel that the patient and therapist are working more closely together and develop a particular relationship.

The context of hypnosis also seems to be useful in another way, in that patients don't find it necessary for them to be completely logical throughout the session. There's something magical about hypnosis, where they expect that unusual things can happen; therefore, they are more open to novel interpretations, different ways of looking at things and some of the other sorts of experiences. So, we feel that the addition of hypnosis makes the non-rational or the novel more acceptable.

Dr. Fremont-Smith: How much of a part does the post-hypnotic therapy —post-hypnotic suggestion—play in perhaps prolonging the effect?

Dr. Levine: Well, we don't prolong the effect of the LSD, and we don't give any—

Dr. Fremont-Smith: No, but you said post-hypnotic suggestion during the hypnosis.

Dr. Levine: We suggest to them that they remember everything that transpired during the session, and that they continue to work on their problems.

Dr. Fremont-Smith: Isn't that a post-hypnotic suggestion?

Dr. Levine: Yes, but not of the nature that the drug response continues. Also, we feel that with hypnosis where the altered time sense comes in, patients are more apt, or more readily able, to see in what ways their previous experiences may be related to their present symptomatology.

Dr. Dahlberg: I just wanted to bring out one point here. I think you have an excellent type of therapy combining these two things. Some twenty years or so ago, Janet Rioch wrote a paper published in the Journal of Psychiatry, in which she made some comparisons between the post-hypnotic suggestion and the kind of parental injunction which is given early in life—the sort of injunction such as "You're a bad boy," "You're going to turn out just like your father did"; and also the more subtle sort of thing such as Edith Jacobson has pointed out. There is some comparison in the way these two work. And I think that the kind of intensifying of suggestion which we are talking about here might go somewhat along the same line. Of course, the same sort of suggestion as to what will occur in a psychedelic experience is the sort of thing that is used in the type of psychedelic

experience talked about in the "Tibetan Book of the Dead," which is an indoctrination.

Dr. Levine: We don't use this period of indoctrination, similar to that which some of the other speakers talk about in psychedelic therapy, a period of preparation; we don't use this. But we use the context of hypnosis to structure the LSD setting.

Dr. Dahlberg: Yes; but there is a kind of similarity, I think.

Dr. Baker: Dr. Levine agrees, I know, that probably expectation and suggestion sort of creep into the follow-up results. I suppose that's hard to sort out.

Dr. Levine: Of course, I couldn't give a detailed statement now. The paper will be published in the American Journal of Psychotherapy—the next issue or the following one. And we did use the controlled comparison design. That is, we had five different treatment groups: one that received all three conditions, LSD, hypnosis and psychotherapy; one that received LSD and psychotherapy; one that received psychotherapy alone; one that received LSD alone; and one that received hypnotherapy.

Dr. Fremont-Smith: In one treatment session?

Dr. Levine: In one treatment session.

Dr. Fremont-Smith: And when was the time that you made your evaluation?

Dr. Levine: Two weeks and two months following therapy.

Dr. Fremont-Smith: Two weeks and two months. This also is in great contrast to other kinds of follow-up, which might be four years later.

Dr. Levine: We had hoped to do something of this sort, but Lexington being so far removed from New York City, where most of the addicts live, this was logistically not possible.

Dr. Fremont-Smith: I'm not criticizing, I'm just calling attention to the sharp differences in what we're using.

Dr. Blair: Were most of these patients in therapy chosen at random or by specific preference for the treatment considered?

Dr. Levine: There were certain specifics for the selection of the patients to participate. Once they were selected, however, they were randomly assigned to any one of the five treatment groups. There were two therapists involved, and that selection was also random.

Dr. McGlothlin: Your description of the psychedelic—I mean, hypnodelic treatment, as I understand it, was only the one session with psychotherapy during the session, but no follow-up psychotherapy. Now, from your experience, would your clinical judgment be that if you had given more psychotherapy it would have been better, or more efficient? Have you had any observations?

Dr. Levine: No, we don't. We explained to the patient that this was the treatment session. Following this, while we would be available on a demand basis, we wanted them to work on their problems themselves; and it was quite surprising how well they did do this. The question of whether follow-up psychotherapy would be beneficial at that point, I think, is one that is best answered experimentally.

Dr. McGlothlin: Your control group, though, that got just psychotherapy, was that a one-session psychotherapy?

Dr. Levine: That was also a one-session psychotherapy.

Dr. Unger: What was the order of therapeutic effect? In the five treatment groups, what was the order of benefit, so to speak?

Dr. Levine: The ranking would be as follows: hypnodelic; psychedelic—that is, LSD plus psychotherapy; hypnotherapy and LSD alone, together in the middle; and then psychotherapy alone.

Dr. Fremont-Smith: Remembering that this is all in the context of one treatment, and a two-weeks' and two-months' follow-up.

Dr. Abramson: I think the experimental design would be much better if you had divided your seventy-seven addicts into two groups: one, LSD alone; and one, LSD plus hypnosis. Then, wouldn't you have a statistically better sample to discuss the effect of hypnosis on the LSD reaction, rather than have seventy divided by five?

Dr. Levine: Since we have shown statistically significant results in five groups of fourteen, we have achieved the same level of significance as if we had used larger "n's." If we had shown no statistically significant results, say only a fringe, then having larger "n's" might have done the job. But, by virtue of the fact that we did find statistically significant results, we have actually contributed more information, because we have four other control groups, if you want to look at it that way.

Dr. Abramson: Are you sure that the significance of your statistics wasn't determined by the criteria that you'd chosen to consider significant?

Dr. Levine: All I can say is that these statistics were measured— the statistics that were used were those that are ordinarily used and reported by other scientific investigators. The data will be published in the American Journal of Psychotherapy.

Dr. Abramson: But I still feel, however, if you wanted to study the effect of hypnosis, that's what you should have studied, with a much larger sample. You should have isolated that system with respect to one other system, and not done what I think you did—studied too many possible systems. With such a small sample, evaluation of such diverse forms of psychotherapy raises many difficulties.