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LSD in Psychiatric Treatment

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The position of LSD as a therapeutic agent in medicine, and specifically psychiatric treatment as yet remains an experimental treatment procedure shrouded in uncertainty. This uncertainty has many roots. Some of these arise from scientific disagreement, journalistic excess, the limitations of our present knowledge and the paucity of controlled studies to substantiate the claims of numerous clinical studies that LSD is useful in psychotherapy. Of these factors, a major obstacle in the clarification of the drug's status as a therapeutic agent is the absence of controlled studies which is due in large part to the difficulty of simulating the unique effects of LSD.

When the effects of LSD were discovered over two decades ago by HOFMANN [1] a great deal of scientific interest was engendered by the drug because of its most unusual potency, dosage-wise. Its potency immediately suggested its application as a possible tool for the synthesis and study of the 'model psychosis'. This concept, namely the development of an investigative procedure which would allow the construction of a synthetic psychotic model which would be intensively studied was not new.

DELAY [2], in a scholarly review of psychotropic drugs and experimental psychiatry stated: 'The relationship of drug-induced states to toxic deliria, stuporous conditions, and apparently spontaneous mental disturbances was noted long ago in antiquity, but the first real experimental study dates to the 19th Century with the report by MOREAU DE TOURS. His publication on "Hashish and mental illness" appeared in

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1845, and was based on auto-observation with drug studies with normal subjects and highly gifted individuals. He concluded that by using hashish it was possible to reproduce the primary aspects of mental illness: Splitting apart of the different components of the mind, and hallucinatory syndrome which he compared to the structure of a dream . . . Long before psychoanalysis emphasized the meaning of the unconscious projections, of symbolism in dreams and hallucinations, MOREAU DE TOURS had noted the interest and importance behind the psychodynamic analysis of the hashish-induced state.'

The difficulties besetting this investigative problem were succinctly expressed by OSMOND [3] in recent years when he wrote: 'It is remarkable how ignorant we still are as to the best way to conduct such experiments. We still do not know for certain the exact differences between the experiences produced by, for example, hashish, and those produced by peyote and mescaline, or mescaline and LSD.' Over the ensuing years, the opportunity to produce a controllable toxic state that reactivated anxiety and fear with intermittent episodes of euphoria accompanied by increased associations and recall, producing episodes of catharsis and abreaction with no clouding of the sensorium, suggested possibilities for gaining rapid access to difficult patients. FREDERKING [4], observed that in some patients the psychocatharsis it stimulated caused the patient to experience a feeling of liberation. These properties led to much self experimentation with dramatic and contrasting accounts of their effects and resulting controversy. The significance of these discrepancies remained unclarified until the influence of set and setting upon the effects experienced by the subject began to be recognized [5, 6].

With this new insight, one of the problems in the attempts to use the unique effects of the drug began to be resolved. The previously frustrating attempts with the uncertainty of replicating a successful employment of the drug as a chemotherapeutic agent per se gave way to a new development. In this, set and setting were deliberately manipulated in combination with psychotherapy to yield intense but controlled reactions which could be replicated with a high level of consistency. These in turn yielded clinical experiences suggesting increased therapeutic promise and the technique came to be broadly identified as psychedelic therapy.

This was a rather unfortunate generalization since the term has more specific connotations, namely, the specific treatment identifications psychedelic and psycholytic. This differentiation is to a large extent dependent on the different techniques employed in structuring the set and

setting, the span of treatment, the number of LSD sessions, dosage level, and the application of treatment in an in-patient and out-patient setting.

Psycholytic therapy, the first of these two approaches, has a history derived from quite a different frame of reference than that of psychedelic. Psycholytic therapy derived its identification from the work of SANDISON [7, 8, 9], who, strongly influenced by JUNG, considered the healing function resulting from this treatment as making the unconscious, conscious. JUNG postulated that the unconscious material is released at different levels and performs a different function at each level. He stated:

'The three principle phenomena associated with the release of unconscious material at different levels are abreaction, regression, and archetypal experiences. The first of these is usually associated with the personal unconscious, the second with either personal or impersonal material, and the third exclusively with a collective or racial unconscious. Abreaction brings about the release of emotionally charged complexes which have been bottled up due to faulty attitudes in infancy. Regression to an infantile state enables early experiences which have not been integrated to be brought into consciousness. The archetypal or deepest experience which VAN RHIJN has equated with some of the hallucinatory manifestations of LSD and which he has called "symbolysis" is the most important of all since it is these archetypes which are the healing symbols. In this region of the psychological experience a spiritual rebirth is symbolized in the birth experience known to so many LSD therapists. It is thus that insight is gained. The total experience of the unconscious, brought about by the power of LSD to loosen the psyche, has led to a feeling that the hallucinogenic drugs should be renamed the psycholytic drugs.'

SANDISON'S critics have suggested that the healing function is rather a 'transference cure' due to identification with the therapist. Both SANDISON'S theory and technique have undergone considerable elaboration by BUCKMAN [10], GROF [11], and LEUNER [12]. In the psycholytic technique, which is psychoanalytically oriented, the therapist employs the drug on a repeated basis at a low dosage, usually 30 to 200 μg of LSD or 3–15 mg of Psilocybin, during the course and within the framework of continuing psychotherapy at those times when the patient seems to have reached a period of resistance in his treatment. The administration of the drug is conceived to facilitate recall, reliving, catharsis, and abreaction, with the production of emotional, dream-like material for subsequent analysis.

The psychedelic approach, on the other hand, was pioneered by OSMOND [3] who reported:

'Our work started with the idea that a single overwhelming experience might be beneficial to alcoholics, the idea springing from JAMES and TIEBOUT. Thus far, it seems that a high dose may be valuable but that repeated treatment is necessary. At this stage of our investigations we have not yet observed enough patients to be able to give any hard and fast rules as to describing these drugs.'

OSMOND'S original thought was to give an alcoholic a case of modified delirium tremens to provide an experience so awful and awesome that the alcoholic would never want to taste another drop. Essentially then, this was a type of aversive treatment. This approach was subsequently abandoned. Influenced by HUXLEY, OSMOND came to the understanding that a positive experience could be induced by LSD and that this positive reinforcement was more efficacious than aversive conditioning. Later, OSMOND gave a great deal of attention to set and setting, having been impressed by the work of HYDE [13] who was able to demonstrate that a social setting which is protective and nutritive results in a reduction of paranoid tendencies and perceptual changes, whereas cold and inquisitorial attitudes increase perceptual disorders and paranoid trends. Other elements were gradually introduced, one being music, its use probably derived from the peyote rituals of the American Indians of the Native American Church. Subsequently, the use of eyeshades was introduced to eliminate distracting visual stimulation leading to an increased channeling of the patients' thoughts into introspective thinking.

However, the single, overwhelming experience remains the keystone of the psychedelic arch and is produced by a large dose of LSD embedded in a therapeutic matrix. This single event yields a reaction which has been termed a peak experience, transcendence, the oceanic feeling of mystic reunion, etc. Psychoanalytically it may perhaps also be referred to as regression. It is a paradoxical state in which the person feels at one with the universe, and yet in this egoless state he retains some sense of his identity with the universe. The experience is not one of simple loss of ego boundaries, as in drifting off to sleep, but is more akin to the fusion state of elation. The experience is characterized by great intensity, a sense of peace, harmony, unity and joy. It is described by religious patients in spiritual terms. However, atheistic patients often conceive of it in terms of oneness with the rest of mankind and the universe with its therapeutic effect not unlike a conversion reaction.

Before a specific assessment of the therapeutic merits of the respective approaches, which have been developed for the application of this unique drug effect, can be undertaken, it should be emphasized that not all investigators agree that there are differentiating characteristics between psycholytic and psychedelic psychotherapy. DAHLBERG *et al.* [14], after reviewing a series of studies, felt that there was so much overlap from one study to another that it was difficult to accept this differentiation as being meaningful. On the other hand, LEUNER [12], who has had extensive

experience with the psycholytic technique, feels that it brings about an activation of unconscious and supressed memories in the sense of depth psychology in contrast to psychedelic psychotherapy which employs LSD as a means of eliciting profound cosmic mystic experiences. This particular form of experience is rather difficult to classify within the framework of existing scientific, medical, psychoanalytical and psychologic systems. LEUNER also questions whether one such session can bring about a permanent and stable personality change. Finally, it must be emphasized that the claim for justification of psychedelic psychotherapy rests mainly on the reports of considerable success by Canadian workers utilizing this technique in the treatment of alcoholics [15–21].

Both of these approaches must ultimately face the scrutiny of controlled studies in determining their effectiveness. The absence of such studies is due to the difficulty in imitating the effects of LSD in control subjects; the experimenter's lack of familiarity with hallucinogenic compounds as well as a lack of any extensive clinical experience with their application; the unresolved methodological problems in comparing various types of psychotherapy as well as the variability in the types of criteria utilized in evaluating treatment results in follow-up studies.

The effect of these formidable obstacles is emphasized by the fact that despite an extensive clinical literature on psycholytic psychotherapy, only one such study was found in the English literature. In this study by ROBINSON *et al.* [22], employing low dosages, negative results were obtained. The degree of therapeutic improvement following LSD was not significantly different from that achieved by a different abreactive technique or standard psychotherapy. Psychedelic psychotherapy was found to be in an even more uncertain position since there are as yet no controlled assessments of the therapeutic value of high doses of LSD administered after a period of intensive preparation in a context of continuous psychotherapeutic guidance during the period of the drug action.

The events leading to our own investigative activities in the field of LSD research were a continuing series of clinical studies reporting substantially therapeutic benefits in the treatment of the alcoholic patient with psychedelic psychotherapy [15–21]. Furthermore, the promising reports utilizing LSD in the context of one treatment experience versus the more intensive treatment requirements of psycholytic therapy made the former a more appealing objective in making our initial choice.

In the early phases of our experimental work carried out at the Spring Grove State Hospital, Baltimore, Maryland, modifications were

made of the psychedelic psychotherapy technique to enhance the effect of set and setting to assist in the production of a single overwhelming experience. Among the modifications was the establishment of a period of preparation of a month in order to provide a series of psychotherapeutic interviews. The interviews were designed to help overcome the patient's distrust and apprehension since experience had indicated that patients in the drug state may develop periods of distrust, confusion, paranoia or outright psychosis. Problems which had been neglected might be intensified and affect the patient with overwhelming force during the LSD session, leaving both patient and therapist unable to cope with these problems in an effective manner.

Although the patient frequently emerges from his LSD session with new insights, a new concept of self, and a mild feeling of elation, clinical experience and psychological testing indicate that more is required. A brief period of post-LSD therapy is provided to work through, support and redirect the patient. The new found values and insights must be supported by a careful delineation of the reality situation confronting the patient or he may fall prey to magical thinking, coasting along for a few weeks on an euphoric bubble and with its collapse, returning to his previous state.

Employing the psychedelic procedure, a controlled study is currently in progress to determine, first – the effect of psychedelic psychotherapy on alcoholics, and second – the effect of psychedelic psychotherapy on the chronically ill psychoneurotic and character disorders. A third study is investigating, on an exploratory basis, the effect of psychedelic therapy with terminal cancer patients. In the alcoholic studies, approximately 175 alcoholic patients, comprising a wide variety of personality and character disorders, have been treated without any complications or sequelae. These studies are composed of the initial pilot study which led to the development of our techniques [23, 24], and the initiation of a controlled, double-blind study which is still in progress.

In the pilot study, 69 alcoholic patients were treated, of whom 23 (one-third) maintained abstinence up to six months. Approximately 18 months later, after extensive experience was acquired with this technique, the controlled study was initiated. In this phase of the research an additional modification was introduced whereby following the initial treatment, patients could continue in out-patient therapy for a period of six months. During this period they could be readmitted for additional LSD sessions up to a maximum of three, if this appeared to be indicated.

In the controlled, double-blind alcoholic study, over 100 patients have been treated to date (July 1967) and are being evaluated at six, twelve and eighteen months by an independent follow-up team. The patients are evaluated by a system of ratings which touches upon the various factors of the patients' lives and living pattern, such as sobriety, work history, interpersonal relations, etc. The ratings for the two years previous to hospitalization are compared with post-hospital status at 6, 12 and 18 months. A preliminary analysis of the data on the patients who have reached the six-month evaluation indicates a trend in favor of the LSD.

An investigative attempt is also under way to evaluate the efficacy of psychedelic psychotherapy on the chronically ill psychoneurotic and those patients with severe personality disturbances admitted to a State psychiatric hospital facility. The severity of their illness is indicated by the fact that some of these patients have had transient, psychotic episodes at the height of their illness. The number of such patients treated to date is relatively small (approximately 50). Although there is as yet insufficient data, progress has been encouraging due to the almost complete absence of any serious complications or side effects.

The events leading to an exploratory study of psychedelic psychotherapy in the treatment of the cancer patient was unplanned. A professional member of our research department, a woman in her early forties, developed a progressive neoplastic disease. She had undergone radical mastectomy and subsequent surgery had revealed metastases to the liver. Although still ambulatory, she was fully aware of the gravity of her condition and became increasingly depressed. Confronted with this situation, our colleague, while not directly associated with the LSD projects, was conversant with the nature of our work and she requested an exposure to this type of treatment.

There was little in the scientific literature suggesting the possible usefulness of LSD in treating this condition, except the reports by KAST. In his studies, KAST had investigated a series of compounds for their analgesic properties, including LSD, and observed that in some of the patients receiving LSD there appeared to be an analgesic effect and, in addition, a lessening apprehension concerning dying. Furthermore, he noted that the patients appeared to have no adverse reaction to the drug's effect, although they were critically ill [25–28]. This very limited information, plus the dramatic response in some of the patients treated in the other studies, and our concern about our staff member, led to a very cautious approach. A course of psychedelic therapy was initiated and pre-

paration for the LSD session took place lasting somewhat over a week. The focus was on the issue of her personal identity and the state of important current relationships within her family. Two weeks after the 200 μg session, she completed the report which is reproduced below.

'The day prior to LSD, I was fearful and anxious. I would at that point have gratefully withdrawn. By the end of the preparatory session practically all anxiety was gone, the instructions were understood, the procedure clear. The night was spent quietly at home; close friends visited and we looked at photograph albums and remembered happy family times. Sleep was deep and peaceful. I awakened refreshed and with practically no fear. I felt ready and eager.'

'The morning was lovely – cool and with a freshness in the air. I arrived at the LSD building with the therapist. Members of the department were around to wish me well. It was a good and warm feeling.'

'In the treatment room was a beautiful happiness rosebud, deep red and dewey, but disappointingly not as fragrant as other varieties. A bowl of fruit, moist, succulent, also reposed on the table. I was immediately given the first dose and sat looking at pictures from my family album. Gradually my movements became fuzzy and I felt awkward. I was made to recline with earphones and eyeshades. At some point, the second LSD dose was given me. This phase was generally associated with impatience. I had been given instructions lest there be pain, fear, or other difficulties. I was ready to try out my ability to face the unknown ahead of me and to triumph over any obstacles. I was ready, but except for the physical sensations of awkwardness and some drowsiness, nothing was happening.'

'At about this time, it seems I fused with the music and was transported on it. So completely was I one with the sound that when the particular melody or record stopped, however momentarily, I was alive to the pause, eagerly awaiting the next lap in the journey. A delightful game was being played. What was coming next? Would it be powerful, tender, dancing, or somber? I felt at these times as though I were being teased, but so nicely, so gently. I wanted to laugh in sheer appreciation – these responses, regardless of where I had just been, how sad or how awed. As soon as the music began I was off again. Nor do I remember all the explorations.'

'Mainly I remember two experiences. I was alone in a timeless world with no boundaries. There was no atmosphere; there was no color, no imagery, but there may have been light. Suddenly I recognized that I was a moment in time, created by those before me and in turn the creator of others. This was my moment, and my major function had been completed. By being born, I had given meaning to my parents' existence.'

'Again in the void, alone without the time-space boundaries, life reduced itself over and over again to the least common denominator. I cannot remember the logic of the experience, but I became poignantly aware that the core of life is love. At this moment I felt that I was reaching out to the world – to all people – but especially to those closest to me. I wept long for the wasted years, the search for identity in false places, the neglected opportunities, the emotional energy lost in basically meaningless pursuits.'

'Many times, after respites, I went back, but always to variations on the same themes. The music carried me and sustained me.'

'Occasionally, during rests, I was aware of the smell of peaches. The rose was nothing to the fruit. The fruit was nectar and ambrosia (life), the flower a

beautiful flower only. When I finally was given a nectarine it was the epitome of subtle, succulent flavor.'

'As I began to emerge, I was taken outdoors to a fresh, rainswept world. Members of the department welcomed me and I felt not only joy for myself, but for having been able to use the experience these people who cared wanted me to have. I felt very close to a large group of people.'

'Later, as members of my family came, there was a closeness that seemed new. That night, at home, my parents came, too. All noticed a change in me. I was radiant, they said. I seemed at peace, they said. I felt that way too. What has changed for me? I am living now and being. I can take it as it comes. Some of my physical symptoms are gone, the excessive fatigue, some of the pains. I still get irritated occasionally and yell. I am still me, but more at peace. My family senses this and we are closer. All who know me well say that this has been a good experience.'

MMPI's were administered one week prior to and two weeks subsequent to her LSD session. The retesting indicated a significant reduction on the depression scale and a general lessening of pathological signs. She returned to work and appeared in relatively good spirits. Five weeks after the date of the session, upon the sudden development of ascites, the patient was rehospitalized and died quietly three days later.

The dramatic relief the patient experienced brought about a desire to investigate this approach further. Subsequently, a pilot study was carried out on five patients referred from the Oncology Clinic of the Sinai Hospital, Baltimore, Maryland, utilizing this psychedelic psychotherapy treatment procedure [29].

It is obvious that no firm conclusions can be made on this as yet small series of patients. However, the apparent safety of the procedure and the encouraging impressions obtained in these few initial cases can only point the way for more extensive studies.

It would appear that the earlier the use of psychedelic psychotherapy is initiated in a patient with a malignancy, the more meaningful are its psychological effects which may bring a sense of lessened distress associated with a sense of fulfillment. The patient may be able to reach out more directly to express his emotions and feelings toward his family, or help to resolve some of the guilt originating from the family's defensiveness and fears. The possibility of a meaningful interchange among family members and with the patient is thus potentiated. Although increased openness and honesty may raise issues of diagnosis and prognosis, beneficial effects have resulted without involement in the specific issues related to the 'awareness of dying'.

Although the psychological mechanisms underlying such changes need much more study, one factor which appears to make this experience

so meaningful to the patient is the profound sense of fulfillment which resolves the intense feeling of unfinished business and its accompanying frustrations. There is the appearance of a positive mood state characterized by peace and love. There is less worry about the future (sometimes even about death itself), and at the same time an increased willingness and ability to live each moment fully for the here and now. Another possible result is an increased openness and honesty which can have an important impact on interpersonal relationships at this critical time. The experience of alert consciousness unsedated by narcotics can be more than just a painless interval, i.e., it can enhance the opportunities for interaction with those the patient loves the most.

Despite these encouraging developments, questions remain which can only be answered by carefully controlled studies. Furthermore, it should be made clear that LSD psychedelic treatment, in the patient confronted with a fatal illness, is not simple chemotherapy, nor does it provide therapeutic magic. LSD alone is not a substitute for sensitive and skilled psychotherapy, but may offer some advantages in the kinds of patients we have treated.

As our clinical experience has expanded, we have been increasingly impressed with the therapeutic possibilities of LSD in the patient prepared by psychotherapy to utilize the emotional forces released by the drug. It is equally clear that special training is required for the therapist using psychedelic methods if he is to achieve maximum therapeutic effect with minimum hazard in carefully selected patients.

Summary

A series of studies carried out at the Spring Grove State Hospital over a period of several years investigating the use of psychedelic psychotherapy employing LSD indicates some promise as to its usefulness in the treatment of patients suffering from chronic alcoholism. It has been most difficult to assess its value in the chronically ill psychoneurotic and those patients with severe personality disturbances admitted to a State psychiatric hospital. The use of psychedelic psychotherapy in the treatment of patients with a terminal malignancy has turned out to be a rather promising area for further research. There are indications that its use in this area may be quite helpful in lessening the apprehension of the patients and at the same time enhancing a meaningful interchange between the patient and his family.

It should be made clear, however, that LSD psychedelic treatment is not simple chemotherapy. LSD alone is not a substitute for sensitive and skilled psychotherapy. Its use, however, as an adjunct to psychotherapy appears to offer some advantages in the kinds of patients we have treated.

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