LSD in the Supportive Care of the Terminally Ill Cancer Patient

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LSD in the Supportive Care of the Terminally Ill Cancer Patient

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Supportive care of the cancer patient frequently presents formidable challenges to the physician's capacity to provide relief. The limited effectiveness of the available supportive measures has led to an intensified search to obtain more effective means. In this pursuit, considerable criticism has been directed toward medical personnel, particularly physicians, for neglecting psychological intervention and tending to make insufficient use of active medical as well as other resources (Krant 1972). Nevertheless, despite the justifications for this criticism, there are often major obstacles to using psychological intervention. Frequently, persistent pain preempts the patient's complete attention, leading to an extensive use of narcotic analgesics and sedatives. This results in a growing restriction of the patient's sense of awareness, confounding the efforts designed to offer psychological assistance. Thus, an additional impetus is given to the withdrawal and separation taking place between the patient, relatives and staff, resulting in further attenuation of the meaningfulness of the patient's existence.

The importance of an expanded, rather than a diminished, communication between the patient and other people as well as the barriers to this process are dramatically and sensitively portrayed in the play The Shadow Box by Michael Christofer (1977). The playwright depicts the coming deaths of three persons who are terminally ill: a young intellectual, a middle-aged man and an old woman. Attention is centered on two themes. The first is that dying is not a problem but a human condition, and that no miraculous therapy can be anticipated—an understanding that underscores the necessity of living the last days honestly. The second theme is the importance of allowing the families of those who are dying to have an opportunity to participate in such a relationship, a course largely determined by the patient's sense of awareness.

The growing recognition of the need to maintain the patient's state of awareness, while relief from pain and dysphoria are provided, has resulted in a clearer outline of the requirements for measures designed to add to the effectiveness of supportive care. The criteria include easing pain without impairment of the sensorium, enhancing and assisting the individual's capacity to maintain an interest in life, the lack of unpleasant side effects, the relatively long-lasting nature of the relief and its effectiveness in a high percentage of cases.

Although this objective is still some distance away, a step toward this goal may have been taken by the investigations focused on the use of lysergic acid diethylamide (LSD) in the supportive care of the cancer patient. An unplanned event led to the initiation of such a study by this author and his associates as they sought to evaluate the usefulness of LSD in a context of brief intensive psychotherapy for the treatment of alcoholics (Kurland et al. 1967). As the investigation was in progress, a member of the research staff became aware that she had cancer. Its distressing impact on her physical and mental state, and the concern of her associates, prompted discussion concerning the possibility of helping her overcome her despair with the experimental treatment. This led to her request to be treated. The dramatic relief she
experienced led to the initiation of a study designed to investigate the possible usefulness of LSD in the supportive care of cancer patients (Pahnke et al. 1970).

Considerable impetus for undertaking the experimental treatment of the staff member was given by the work of Kast (1966, 1964, 1963) and Kast and Collins (1964), who had administered LSD as an analgesic to cancer patients experiencing severe pain. Kast found that some of the patients experienced considerable relief, and some attained a surprising sense of detachment regarding the presence of their malignancy.

The writings of Aldous Huxley (1968, 1962) directed attention to the possibility of using a drug for this purpose. In 1955, as his first wife was dying of cancer, Huxley sought to lessen her suffering during her final hours by resorting to a hypnotic technique to bring her in touch with memories of the ecstatic experiences that had occurred spontaneously on several occasions during her life. The therapeutic goal was to facilitate the experience of dying by guiding her toward these mystical states of consciousness as death approached. Sometime later, Humphry Osmond, a pioneer in psychedelic research, introduced Huxley to the effects of LSD and mescaline. These experiences found expression in his writings as the "soma" in Brave New World (1968) and the "moksha medicine" in Island (1962) taken by the character Lakshmi as she lay dying under similar circumstances.

Grof and Halifax (1977) stated that, according to Huxley's second wife, Laura, Aldous mentioned on several occasions that "the last rites should make one more conscious rather than less conscious, more human rather than less human." When Huxley was suffering from terminal cancer in 1963, he asked Laura to give him LSD to facilitate his dying. This was later described in her book This Timeless Moment (1968).

Unrelated to Huxley's thinking was the work of Kast, an anesthesiologist, who utilized LSD for this purpose on an experimental basis. Kast's attention had been drawn to LSD by reports describing its dramatic effect in altering perception and sensation. This led to an investigation of its usefulness as an analgesic in cancer patients experiencing severe pain, in the course of which LSD was administered as a chemotherapeutic agent. Kast's comparisons of LSD with the narcotic analgesics dihydromorphine and meperidine showed that the analgesia induced by LSD was of longer duration. Moreover, the intriguing observation was made that some patients showed a striking disregard for the gravity of their personal situations.

Kast concluded that LSD was capable not only of improving the lot of dying individuals by making them more responsive to their environments and families, but also of enhancing their ability to appreciate the nuances and subtleties of everyday life. These promising observations, however, were not pursued further. Similarly, Sidney Cohen (1965), a friend of Aldous Huxley and a pioneer in psychedelic research, also treated a cancer patient with LSD and reported on its usefulness in providing relief. These reports as well as the investigative experiences indicating that the psychedelic peak reaction could be induced in about a third of alcoholic patients were significant factors in suggesting the drug's possible usefulness in the supportive care of the cancer patient.

The peak reaction, with its capacity to induce a profound sense of meaningfulness as well as an extraordinary depth and intensity of positive emotion, was viewed as a powerful instrument. In nondrug contexts, reactions of this nature have been referred to as "visions," "encounter" and "conversion" experiences. Attempts to synthesize this reaction led to its emergence as a distinctive treatment form based on the concepts outlined in the work of William James (1902) and Thiebout (1954). These concepts provided Osmond (1957) with the theoretical underpinnings for the therapeutic use of LSD administered in a single large dose.

James (1902) viewed the conversion experience as a gradual or sudden process in which the self—formerly divided and consciously wrong, inferior and unhappy—becomes unified and consciously right, superior and happy in consequence of a firmer hold on religious realities. Aiding the process was the presence of a state of suffering, a prerequisite to conversion. Thiebout (1954) interpreted the process as the workings of self-surrender. Maslow (1962: 9) described these experiences as "moments of pure, positive happiness when all doubts, all fears, all inhibitions, tensions, all weaknesses were left behind. . . . All separateness and distance from the world disappeared as they felt one with the world, fused with it, really belonging in it and to it, instead of being outside and looking in."

Maslow (1959) set forth the following propositions regarding peak experiences, which he viewed as testable: (1) Peak experiences have some therapeutic effects, in the strict sense of removing symptoms; (2) They change a person's self-image in a healthy direction; (3) They change one's views of other people and relations to them in many ways; (4) They change, more or less permanently, one's view of the world or of aspects or parts of it; (5) They release greater creativity, spontaneity and expressiveness; (6) The experience is remembered as a very important and desirable happening; and (7) The person is apt to feel that life in general is worthwhile, even if it is usually drab, pedestrian, painful or unirritifying, because beauty, excitement, honesty, truth and
meaningfulness have been demonstrated to exist.

In contrast to customary psychotherapy, which tends to bring out a patient's shortcomings, psychedelic (LSD) peak psychotherapy provides a highly intense and unusual experience that may change the way the patient views life. The psychedelic experience allows the patient to face his/her shortcomings with less resistance. The transcendental nature of the experience may also neutralize a sense of alienation, and in so doing, attenuate a sense of hatred and lack of love generated by the patient's plight, while allowing the experience of some of the inner goodness of the self. As Savage (1962: 424) cogently commented, "We should . . . recall that Vergil guided Dante into the inferno and returned him safely, chastened and enlightened."

With these concepts as a guide, the experimental endeavor was begun. However, the use of LSD was administered in a context quite different from that of Kast's study. He had employed LSD primarily as a chemotherapeutic agent (i.e., the drug was administered without any specific psychological preparation for the experience). LSD was employed by the author and his associates in the context of an experimental treatment form that was conceptualized as psychedelic peak psychotherapy. The objective was to maximize patients' opportunities for living by lessening their sense of isolation and alienation, and in so doing, assist in their reaching out to those about them.

METHODOLOGY

Criteria for referral to the study included the presence of physical pain, depression, tension, anxiety or psychological isolation related to the patient's affliction, and a life expectancy of at least three months. The latter was necessary in order to determine not only the immediate treatment outcome but also the duration of results. Criteria for exclusion were the presence of cardiovascular problems and central nervous system (CNS) complications.

At referral, a psychiatrist discussed the nature of the treatment with both patient and family, regarding its possible benefits and risks. Also emphasized was the fact that LSD was not a cure, but might be helpful in making it easier to manage the affliction. The treatment process was outlined for the patient as consisting of three parts. The first was a preparatory phase consisting of a series of interviews and psychological tests. During the interviews, the patient's history and present course were reviewed. The preparatory period extended over a period of two to three weeks and usually entailed six to 12 hours of interviews. The second part was the LSD session, extending over a day. The third part began on the day following the drug session and lasted for several days, during which the experience and resultant insights emerging in the drug session were integrated into the patient's daily life.

During the first phase, if a feeling of trust was established with the patient and family, psychotherapeutic treatment was undertaken. This focused on outlining unresolved issues between the patient and important persons in his/her life, on the patient's social network, on an assessment of the awareness manifested concerning the diagnosis and prognosis, on the emergence of intrapsychic conflicts, and on blocks to communication. It differed from therapy with noncancerous subjects in that no major effort to explore deep conflict material was attempted. The emphasis was on making life as meaningful as possible. In this preparatory phase, it was repeatedly emphasized that the treatment would not affect the cancer, but was primarily concerned with strengthening the patient's psychological structure. Moreover, although many of the discussions centered on philosophical, religious and metaphysical issues, the emphasis was on the here and now—rather than rumination over the past or future—and was directed toward obtaining satisfaction from ordinary situations in life.

The exploration of philosophical or religious issues in the preparatory phase frequently proved to be helpful during the session itself. For example, those who may have had negative feelings about organized religion still may have experienced spiritual or mystical experiences of awe or wonder in relation to time and space, to the creative forces of nature, and to the many mysteries of the universe and of human existence.

One week prior to the drug session, all tranquilizing medications were discontinued to avoid interference with the psychedelic session. Medication pertaining to maintenance of the patient's physical state, however, was continued. Detailed information relative to the treatment procedure of the LSD session was provided, with the nature of the drug experience explained in a special interview immediately prior to the drug session. At this time the patient was also introduced to the other members of the treatment team, which always consisted of a male-female dyad.

The psychedelic experience was discussed, including its effects on consciousness and how the patient might best interact with the various aspects of the psychedelic state. Modes of communicating with the treatment team during the drug's period of action were clarified, as were any questions concerning the technical aspects of the session that might arise. A special emphasis was placed on the necessity to allow the patient the freedom to feel everything that emerged, to experience it fully, and to give full expression of the experiences. Without this,
there would be less chance of obtaining a rewarding session with a total psychological surrender to the experiences. The day before the session, relatives were encouraged to bring fresh flowers, fruit and pictures that had special meaning to the patient. Stereophonic equipment was set up so that the patient could become accustomed to the headphones and eyeshades.

The patient spent the second phase (the drug session) in a reclining position most of the day. The LSD dose was determined by experience as the session progressed, usually beginning with 200 to 300 micrograms (μg). The drug was usually administered orally, unless the patient was nauseous or vomiting, in which case it was administered intramuscularly. If, after one or two hours, the patient still manifested signs of anxiety because s/he was still clinging rigidly to reality ties, more LSD was administered, with the dose increased to 600 μg. Experience with different doses indicated that small-dose techniques are less effective, as they do not lead to a full realization of the therapeutic potential of the experience.

Sequentially, in the course of the drug experience, there is a latency period of 20 to 40 minutes following the administration of LSD. The latency period is usually spent in a relaxing discussion, looking at pictures or listening to quiet music. As the patient begins to feel the effect of the drug, s/he is encouraged to lie down and to cover his/her eyes with an eyeshade, a procedure designed to avoid the distraction caused by the drug-induced visual stimulation. The headphones are put in place and music is played throughout most of the session.

The musical selections were made prior to the drug session, usually on the basis of consultation with the music therapist, and were chosen to stimulate and guide the patient's imagery as a transporter and suggestive device (Pahnke & Bonny 1972). The music is intended to help the patient release his/her usual ego controls, and because it is nonrepresentational, provides structure without content: The individual may imprint his/her own feelings. During the initial phases of the LSD session, the music that is used is intended mostly for reassurance. Records by Montovani as well as Julian Bream's recording of Vivaldi's Concerto for Guitar have been successfully employed for this purpose. As the drug effect increases, music that has a pressing quality, with long phrases leading toward climaxes, is played, such as the music of the Mormon Tabernacle Choir or Symphonies No. 3 and No. 5 by Brahms. At the peak, uplifting, lyrical music with slower rhythms and higher frequencies have been most useful. At this point, the music is only sometimes heard by the patient, although s/he usually keeps the earphones on. The music has become an opaque surface on which the patient is able to imprint what experiences have emerged. Gounod's St. Cecilia's Mass and Verdi's Requiem are frequently used. Following the peak, when the therapist is trying to stabilize the positive experience, the music is relaxed and often spiritual (e.g., gospel songs by Mahalia Jackson).

A dose of 200 μg or more of LSD usually results in a 10- to 12-hour period of striking, varied and anomalous mental function with multiform effects. Certain dimensions of possible reactivity are therapeutically irrelevant (e.g., sensory changes); others have distinctly anti-therapeutic consequences (e.g., panic, terror or psychotic reactions). The major dimension of therapeutic relevance of drug-altered reactivity is the affective or emotional sphere: intense, labile, personally meaningful emotionality is induced, with periodic episodes of overwhelming feeling.

In the first several hours of a psychedelic session, perseverative preoccupations and emotional distress patterns are attenuated or fragmented. Subsequent recall for this period is nearly always poor. During the third to fifth hours, the psychedelic reaction begins to build up to a peak intensity.

At times, if indicated, nonverbal support is employed. This varies from touching or holding hands to cradling, caressing and rocking. At intervals during the session, the headphones and eyeshades are removed. Brief verbal contact is made with the patient, who is given the opportunity to communicate any insights or feelings s/he cares to share. The emphasis at these times is on experiencing and feeling, with discussions of the encountered phenomena postponed until evening or the following day.

There may be occasions during the drug experience in which extended interviews are used to attenuate counterproductive activity, especially when severe anxiety is aroused and communication is blocked. Experiences of this type, which are likely to occur within a single session, include: (1) a flight into ideas by which the experience is denied, with the patient attempting to control the emotional component, giving rise to almost unbearable tension, and the patient is likely to report afterward that very little had happened; (2) a concentration on the physiological component, with the disturbances of perception so overwhelming that they cannot be interpreted, resulting in intellectual rationalization processes being swamped and attempts to establish order fail; (4) manifestations of paranoia; and (5) the awareness of a dual reality.

When the patient is observed to be experiencing intensified emotional feelings, the therapist may use these...
occasions to encourage an acceptance of self, because at such times the patient is less likely to rationalize or have guilt feelings. The therapist in turn maintains a sense of optimism and avoids all forms of reproach, stressing the patient's own responsibility for the perpetuation of his/her difficulties and for the removal of the unhealthy attitudes from which these difficulties arise.

With skillful handling, the remainder of the session may be spent by the patient in a state of elevated mood in which psychotic and other turbulent phenomena are no longer problems. Instead, there is a deep tension-free state of well-being or a positive experience of pure being in the here and now. In later hours of the session, family pictures are utilized to help elicit feelings and memories about specific persons and events that emerge as relevant during the session. As the patient begins to return to the usual state of consciousness, family or close friends are invited into the treatment room for a reunion to facilitate more open communication. After the visiting period draws to a close, more time is spent by the therapist in interaction with the patient alone.

Besides the usual psychotherapeutic techniques, any means should be used (especially in the second part of the session and during the termination period) to facilitate a positive reentry and stabilization. For example, stereophonic music, aesthetic stimulation, walks in nature, the presence of congenial friends, and tasteful and colorful natural foods are often helpful. This should not replace the emphasis on the interpretative working through of any personal material that emerges or the analysis of transference situations when they occur.

Reentry is usually accompanied by a psychedelic afterglow, a radiant and positive feeling of well-being that often connotes a real change in values, an increase in spirituality, a decrease in meaningless goals, less emphasis on material things, a feeling of being more at home in life and a greater appreciation of life's possibilities. A person who has confronted and entered into the moment of psychological death, who hanging suspended over a dark and endless chasm in a stark and deserted terrain decides to let go, is likely to fear less and be open to more.

The clinical picture of a stabilized psychedelic reaction is one in which mood is elevated and energetic. There is a relative freedom from concerns of the past as well as from guilt and anxiety. The disposition and capacity to enter into close interpersonal relationships is enhanced. The psychedelic afterglow may persist from two weeks to a month and then gradually fades. During this period, renewed appreciation for meaningful present experience and a corresponding decrease in anxiety about the future is noted. In addition, the psychedelic peak experience may provide a fulcrum for effective psychotherapeutic work on strained family or other interpersonal relationships.

The third phase of LSD therapy begins the day following the drug experience and continues over the following week, as the experience and its insights are integrated into the perspective of everyday living. During this period, the patient gives a detailed written or verbal account of the session.

If the psychedelic session was successful (i.e., if peak experience is attained), no further sessions are scheduled. Over time, however, as the inroads of cancer continue their relentless course, once more bringing about a worsening of the patient's physical and emotional state, additional treatments may be sought by the patient. When these have been provided, the outcome has usually been favorable with the patient again experiencing considerable relief for a period of weeks or months.

Although many of the cancer patients manifested physical symptoms, and with the potential for LSD to give rise to psychosomatic effects, such as occasional headaches, tremors, nausea, palpitations and breathing difficulties, there were no indications that LSD accentuated the physical symptoms of the cancer patients. Moreover, despite the fact that many of the patients found the experience a fatiguing one, there was no evidence suggesting that their physical symptoms were made worse. For all practical purposes the administration of LSD was a relatively innocuous procedure from a medical standpoint, despite the fact that many of these patients were gravely ill. Furthermore, in those patients who had little or no apparent response to the drug experience, there were no observations suggesting that their conditions had been made worse.

A comparison of those patients coming into the program in the last stages of their illness (usually after all conventional medical approaches had been tried and failed) with those seen much earlier in the course of their illness, indicated that the earlier the patient participated, the more rewarding the therapy. It was especially helpful for those patients receiving a number of such treatments.

CASE PRESENTATIONS

Patient 1

The first case was a staff member. The patient was a 43-year-old, White, married female, with two children. She was a graduate of a prestigious university and had coauthored a number of scientific papers on problems relating to social work. She was viewed as an energetic individual and one not prone to make complaints of physical discomfort, an observation corroborated by the fact that she never spoke of her illness that had begun in the previous year and for which she had been hospitalized. She had developed a malignancy of the breast and had...
undergone a radical mastectomy. Subsequent surgery revealed inoperable metastases to the liver. She was fully aware of her condition and her prognosis, and although still ambulatory, she was in considerable physical and emotional distress.

As seen by her colleagues, the patient was a tall, thin, gaunt and somewhat anxious individual who was bright and very capable in her professional activities. However, as she became involved in the experiment, some of the distortions in her personal life came to light.

Staff concern, the recent reports of Kast, and the encouraging observations made during other studies of psychedelic psychotherapy with alcoholic and neurotic patients led to suggestions that such treatment might also be helpful to her. Discussions with her husband, her father (a psychiatrist) and her physician followed, and with the approval of all concerned, the experimental treatment was undertaken. The therapeutic objective was to facilitate the occurrence of a psychedelic peak experience.

The preparation for the LSD session occurred over a period of about three weeks, touching on aspects of her personal identity and current interpersonal relationships. The patient was found to be permeated with a sense of fear, with self-doubts and with many questions about her own worth as a person. Considerable time was spent dealing with her attitudes about herself and her strained relationship with her husband. They hardly talked and there was a superficiality to their relationship. Furthermore, her relationships with her children were not especially close. The therapist obtained the impression that the patient was isolated as a person, as a mother, as a wife and as a professional social worker. Many hours were spent exploring what life meant for her and what it had been. As she gained insight into these issues and her relationships, there was considerable catharsis.

The contrast was dramatic. Here was a woman preparing to die within a relatively short period of time, who was actively engaged in the business of trying to remake her relationships and really profit from them. She had long, intense sessions with her husband in which they wept together. They began to break through some of the barriers that had built up between them. The children also knew of her terminal illness and shared in the experience.

As her negative feelings about herself began to lessen, the family appeared to be coming together. There was a relaxation and less preoccupation with the pain. Although there were discussions about death and what it meant, her fear of death was relatively minimal, allowing greater emphasis on her burden with living. About this time she seemed quite ready for the LSD experience and she was administered a 100 μg dose of LSD.

Shortly after her session she went on a vacation with her husband and children. On her return two weeks later, she wrote a report, part of which is summarized here:

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 and 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 feeling.

In the treatment room was a beautiful Happenness rosebud, deep red and dewy, 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 to 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 my 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 sound that when the particular melody or record stopped, however momentarily, I was alive to the pause, eagerly awaiting the next lap of 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 of these responses, regardless of where I had just been, how sad or awed. And so 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

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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 respirations, I went back, but always to variations on the same themes. The music carried 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 itself; the rose was only a beautiful flower. When I finally was given a nectarine it was the epitome of a subtle, succulent flavor.

As I began to emerge, I was taken to a fresh windswept 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 for me 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, and 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 occasionally and yell. I am still me, but more at peace. My family senses this and we are closer. All who known me will say that this has been a good experience.

The Minnesota Multiphasic Personality Inventory (MMPI) had been administered one week prior to, and two weeks subsequent to, the patient's LSD session. The retesting indicated a significant reduction on the depression scale and a general lessening of pathological signs. Apparently in good spirits, she returned to work after her vacation. Five weeks after the date of the session, on the sudden development of ascites (the effusion and accumulation of fluid in the abdominal cavity), the patient was rehospitalized and died quietly three days later.

The dramatic outcome of LSD therapy in providing relief and support for this patient led to the treatment of other patients. The following clinical vignettes are presented to outline the results with three other patients: Patient 2 responded significantly to a series of four treatments given over a period of approximately two years; Patient 3 had an initial response that was minimal, but her subsequent treatment produced a much better response; and Patient 4 displayed no apparent response.

**Patient 2**

The patient, a 58-year-old, White, Jewish, married female, had suffered from breast cancer for 12 years. In spite of numerous surgical and medical procedures, the disease had spread widely in her spine. At the time she was referred for LSD treatment, pressure on nerves in her spine had caused numbness and a paralysis of the lower half of her body. When first interviewed the patient was anxious and depressed.

After six hours of preparatory psychotherapy with the patient and her family over the period of a week, during which the nature and purpose of the treatment were explained, the patient was given 300 µg of LSD. The first few hours of her psychedelic session went well and were pleasant, but a complete psychedelic peak experience was not attained. There were a few moments of intense positive psychedelic reactivity. For example, at one point the patient exclaimed, "This is one of the happiest days of my life. I will always remember it." There were also transient episodes of apprehension, confusion and paranoia that were easily handled by reassurance and support.

During the latter part of the session, the patient raised the question of whether or not she would walk again. This issue was handled by a realistic review of her condition, with the therapist finally stating in a direct answer to her question that it was very unlikely that she would be able to walk again. The patient then expressed her reluctance acceptance of the idea that her life could still go on even if she were confined to bed, a condition that she had previously greatly feared. However, she spontaneously expressed her determination to do her best in physiotherapy, in spite of the odds against her. She was supported in her resolve to try. At the same time, the necessity of eventual acceptance of her condition was emphasized.

After the patient had emerged from the effects of the drug, her family visited. This was a time of intense closeness and interpersonal sharing. The family commented on the marked lessening of her anxiety. In the days following the session, the patient's mood was cheerful and hopeful. Six days after her LSD treatment, she was discharged from the hospital and began intensive work with a physiotherapist. She made remarkable, quite unexpected progress, and within four months was able to use a walker. Six months after treatment she walked with a cane and later walked unaided.
In spite of her impressive accomplishments, the patient again became depressed and difficult to care for at home, because the back brace that she had to wear when out of bed (four to six hours a day) was cumbersome and she needed assistance from another person to put it on. The patient was readmitted to the hospital 10 months after her first session for her second treatment because of her increasing depression, and both she and her family requested another LSD treatment.

She was seen regularly during the preparatory phase. Interpersonal relations, her self-concept and some realistic expectations for the future were the major issues explored. Her initial reaction to the session was one of anxiety; then the issue of her disease was encountered. She faced the fact that throughout her illness she had tended to deny that she was really sick. She remembered other cancer patients she had known and her fear of decaying flesh was symbolized by visions of vultures feeding on rotten meat. After confronting, rather than retreating from, these unpleasant feelings and experiences, the patient had the experience of passing through a series of blue curtains or veils. On the other side she felt as if she were a bird in the sky soaring in the air. Then she was on a high mountain top in a small cabin alone with the snow falling. She experienced wonderful feelings of peace and harmony as well as visions of beautiful rainbow-like colors. After this, she stabilized the experiences and enjoyed reliving happy memories from her past—the best of which was her wedding day, which she relived in great detail, including reexperiencing the way her mother sighed as she came down the aisle. These happy memories were in contrast to the early part of her experience when she had relived some unpleasant events, such as the prejudice directed against her as a child because she was Jewish, and her failure to take advantage of the cultural opportunities her father had tried to provide. In the latter part of the experience the patient thought deeply about her family while looking at their pictures. She was able to resolve some of her ambivalence about her younger daughter who was to be married in three months. She felt sorry for some of the strife between them and came out of the experience with a resolve to make a more constructive attempt to relate to this daughter in the future. When the patient’s family arrived after supper, she had a serene smile on her face, but was reluctant to talk too much about her experience. She said, "You wouldn’t believe me if I did tell you."

Several days later the patient left the hospital in good spirits. One effect of the treatment was that when she was troubled with pain, she could push the pain out of her mind by remembering her out-of-body LSD experience.

The patient did very well for about one month, until she slipped on the stairs one day and injured her back, which again began causing her considerable pain. She also became sick with flu and was confined to bed. Prior to this she had been considering going back to work part-time at her old job, but as her physical condition worsened, these plans had to be postponed. With physical setbacks, and especially the recurrence of her pain, the patient again became somewhat depressed. Both she and her family requested another LSD treatment. The patient was seen for about a month as an outpatient and then readmitted for LSD therapy almost six months after her third treatment.

During the final preparation in the evening before the session, the patient suddenly asked a direct question about her diagnosis for the first time in the almost two years she had been in the LSD treatment program. Her questions were answered in a straightforward manner and their meaning and emotional impact were discussed with her. The family members were informed of this conversation immediately thereafter and they reacted by becoming quite upset and angry. However, that very evening, in a general family discussion that included the patient, most
of them were able to resolve their feelings. Some felt embarrassed because of their previous pretense; most felt relieved when they saw how well the patient dealt with the situation. The patient stated that she was glad to know the truth and was obviously not psychologically shattered or further depressed, as some of the family members had feared.

The fourth session, held on the next day, went smoothly except for some nausea due to reliving an episode the patient had experienced shortly before admission when she had eaten some spoiled food. A considerable amount of psychodynamic material emerged concerning her feelings about various members of her family, especially her two daughters. In the evening, the patient felt very close to her family and spent some time talking to each of them alone in a very personal way. She was reluctant to have them leave at the end of the evening even though she was very tired. During the days after the session, the patient felt relaxed and in good spirits. She was not pessimistic about the future, in spite of the new knowledge about their diagnosis of metastatic cancer to her spine. She was able to tolerate her back pain with the aid of narcotic analgesics, but did not have complete pain relief.

While still in the hospital, a hypophysectomy (surgical removal of the pituitary gland) was attempted as a possible means to stop the further spread of her metastatic process. Because of hemorrhage, the operation could not be completed and the patient died a few days later.

**Patient 3**

This patient appeared to have experienced only a minimal effect from LSD-assisted psychotherapy initially, but on subsequent treatment obtained a much better response. She was a 43-year-old, White, Protestant, married female suffering from depression and severe intractable pain, secondary to an inoperable metastatic adenocarcinoma of the pancreas. She had been treated at home for four months after an exploratory laparotomy. She had been brought back to the hospital by her husband and daughter when they could no longer tolerate her increasing agony and the psychological stress caused by her suffering despite the administration of narcotic analgesics.

Preparation for LSD therapy was of eight hours duration and consisted of interviews with the patient and her family. Her life history and her attitude toward her disease were reviewed, although at this point the patient was not aware of the seriousness of her condition or diagnosis. On the day of her LSD session, she received 250 µg of LSD. After a brief initial physical struggle, the patient was able to relax and let herself be carried by the music into a positive emotional experience. Although she had some moments of joy and ecstasy, the psychedelic peak experience was not stabilized. About three hours after the initial injection, her physical pain became disruptive, and after one more hour, she was given an extra 50 µg of LSD intravenously, providing some temporary relief of the pain. During the afternoon, however, the patient needed to be given opiates to control her intense gas pain. After a light supper and enema, she was fairly comfortable and was visited by her family and minister during the evening. The day after the LSD treatment, the patient was still complaining of pain. Subsequently, however, despite her pain, she felt more cheerful and less depressed. Because of these benefits as well as that the patient had not obtained the maximal effects, she requested another treatment. During the intervening week, the patient and her family were seen for eight hours of psychotherapy, and at her instigation, the issues of diagnosis and prognosis were thoroughly explored. Both she and her family expressed emotional relief at being able to discuss these difficult problems for the first time in an open way.

One week after her first session with LSD, the patient was given a second 400 µg session. During the first three hours she experienced several psychedelic peak reactions and felt resolutions of several problems relating to interpersonal relationships with her family. One of her major concerns had been the way she would explain to her young grandchildren what was happening to her and what the ultimate outcome would be. Her daughter had wondered whether or not she should even let the children see her grandmother, who was becoming progressively emaciated. During the LSD session, the patient had a vision of all her grandchildren standing by her bedside. She had a very intense experience of the love she had for these children and what she could share with them in the days ahead. In general, there was more positive content during this second experience than during the previous one, and less abreaction and catharsis of unpleasant memories of her childhood. When her family visited during the evening, the patient was not completely free of the drug’s effect, but was able to talk meaningfully with them. The day immediately following the LSD treatment, she was extremely tired, but in the subsequent days she seemed more calm and peaceful than she had been before the experience.

Eight days after her last LSD session, the patient was discharged to her home in the care of her family. Her husband and daughter were able to care for her satisfactorily during the month before she died. Her pain was now adequately controlled with the aid of narcotic analgesics, but the daughter, especially, remarked on how much better her mother seemed to be able to bear the pain...
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than previously. The patient was able to see her grandchil-
dren for some time each day, and they understood what
was happening as she became progressively weaker. They
took this opportunity to discuss with her some of their own
questions about death, and particularly about her own
death.

Patient 4

This patient showed no apparent response to LSD
therapy. She was a 56-year-old, White, Protestant, mar-
ried female who was diagnosed four years earlier as hav-
ing cancer of the uterine cervix with abdominal metastas-
tes. She was treated at that time with radium implanta-
tion and cobalt irradiation. She did relatively well in the
four years following discharge, until the development of
increasingly severe suprapubic pain, which radiated to the
small of her back, and was at first controlled with
Darvon® Compound. At the time of admission, the
patient described the pain as similar to that of advanced
labor; it was followed by the expulsion of bloody clots
from her vagina. There was no history of anorexia,
nausea, vomiting or weight loss. She complained of se-
vere gas pains and persistent diarrhea. On physical ex-
amination there was tenderness in the rectovaginal area
and pain in the left leg.

By the time she was evaluated for LSD therapy, she
was definitely in a terminal state. She was extremely
debilitated physically and was noted to be both agitated
and depressed. Her severe pain was being treated with
various opiates, including meperidine and morphine.
Chemotherapeutic treatment had been attempted with
drugs via an intra-arterial catheter placed in her lower
aorta via the inferior epigastric artery. Because of urinary
incontinence, she had an indwelling Foley catheter. Her
diarrhea was a continuing problem, as was her uncontrol-
able nausea. Intermittently she passed bloody, necrotic
material from her vagina. The marked physical debilita-
tion of the patient and her great distress led the surgeon to
suggest the experimental treatment.

Preparation for the LSD session extended over nine
days, with the patient seen for a total of seven hours. Her
general weakness and nearly continuous intense dis-
comfort made preparation very difficult. She was not
strong enough to read the LSD descriptive literature. It
was unclear whether or not she ever developed any real
comprehension of what the treatment involved, but the rap-
port was established and the patient seemed positively
disposed to proceed with the LSD intervention. Despite
many misgivings and because of the desperate nature of
the situation, the treatment was undertaken.

On the morning of her session day, after her regular
meperidine administration, the patient was given 100 μg
of LSD orally, followed by 100 μg one hour later. The
onset of the drug’s effect coincided with an attack of
uncontrollable diarrhea and intense gas pains. The patient
then soiled the bed and was repeatedly unable to control
her bowels throughout the day; each such instance was
associated with intense discomfort and distress. The di-
arrhea, along with her general weakness, compromised
her ability to enter into the LSD experience. There were,
however, some periods of drug-stimulated emotionality
and apparent resolution of conflict areas, but the goal of a
positive emotional state was not achieved. Because of the
exhaustion of the patient, the drug’s effects were stopped
at 6:30 p.m. by 50 mg of intramuscular chlorpromazine.
The patient gradually dropped off to sleep and the next day
reported a good night’s rest.

In the days following the treatment, the patient’s
general psychological condition seemed improved and
she was considerably more relaxed. The therapist visited
the patient four or five times per week and the strong
emotional bond between them could be expressed nonver-
bally by a squeeze of the hand. The other family members
also responded to the therapist by sharing their concern
and psychological pain with him as the patient’s physical
condition steadily worsened. Her diarrhea was still not
under control and her physical distress, which was great,
predominated in the patient’s consciousness. Twenty-two
(22) days after the LSD experience, she sank into a
stuporous condition and expired.

DISCUSSION

It is readily apparent that many issues concerning the
mechanisms underlying the psychedelic experience await
clarification, especially the pharmacological effects on
the CNS. The psychological diversity of the experiences
yields the impression that the altered state of conscious-
ness cannot be explained solely by the influence of non-
drug factors (e.g., personality of the subject and therapist,
preparation and set prior to treatment, expectation and
treatment structure), because the total experience was
difficult to articulate or communicate.

There are also questions pertaining to the therapeutic
effect and whether it is due to LSD per se or its interaction
with the psychotherapy that precedes, accompanies or
follows the drug experience. Moreover, there is the ques-
tion of the structuring of the LSD experience, and from
this point of view Kast’s results are challenging. Not only
did he approach the procedure from a purely
chemotherapeutic perspective, but for at least some of his
patients he administered a drug without even forewarning
them. Careful study of Kast’s articles suggests, however,
that in later studies, when he became more aware of the
psychological, philosophical and religious aspects of the

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LSD experience, he obtained better results with regard to the emotional condition of the patients and their attitudes toward death. Additionally, the analgesic properties of LSD seemed to be rather constant in all his published studies. This would indicate the LSD might have a certain component of analgesic action that is independent of the emotional condition of the patient.

A critical aspect of the treatment form is the achievement and stabilization of the elements of the peak experience, because it is essential to its success. Much remains to be clarified concerning the factors contributing to or detracting from the attainment of the therapeutic goal. In those responding maximally (approximately one third of the patients) the fear of death was overcome, accompanied by a relief of their depression, isolation and sense of alienation. Another third felt that they had been helped and moved by the experience, but were not able to obtain dramatic relief. The remaining third were nonreactors who were neither helped nor harmed by the experience.

Obviously, the question of why some patients were able to peak and others were not is an important issue requiring further study. Identification of criteria would be an important contribution, especially in the initiation of controlled studies with homogeneous populations designed to determine the comparative merits of psychotherapy or counseling and hallucinogenic compounds.

Whatever the underlying psychodynamics may be, it has become apparent that clinical problems tend to intensify when the patient cannot conceive of any feasible change. The dramatic impact of psychedelic psychotherapy in altering this state of affairs by resolving difficult psychosocial situations expands the options available to the patient. In particular, it can give the patient the feeling that s/he has a greater capability for participating in his/her own destiny, a state of mind that allows for the consideration of alternative behaviors and a renewed motivation for pursuing them. The increased opportunity for self-management and the cognitive self-control that is associated with it also introduces new opportunities for covert self-instruction. Making use of this opportunity depends in part on introspection, a critical psychic mechanism for putting feelings and actions into words and imagery. The psychedelic experience is a powerful instrument for inducing this process (e.g., Pahnke 1969).

Weisman and Sobel (1979: 7) stated, “For the cancer patient who believes that he or she has been invaded by an implacable, relentless enemy, a cognitive intervention may help reassert an internal locus of control and subsequently begin the process of psychosocial rehabilitation.” Through its ability to activate anxiety and fear with intermittent episodes of euphoria, accompanied by increased associations and recall, LSD produces episodes of catharsis and abreaction, with no clouding of the sensorium. It offers a means for gaining rapid access to depth processes, especially in some of the difficult patients, allowing them to experience a feeling of freedom. The new experience can bring with it a sense of liberation from ignorance or illusion, enlarge the spiritual horizon and give new meaning to life, particularly if it is reinforced by social experiences and further interaction with the therapist.

The changed perspective and its resultant insights—when it occurs—may have more to do with the person’s value system rather than with recovered memories and interpersonal insights. Much of the beneficial effect may also be due to the person’s having faced a stressful and ambiguous situation and worked through it satisfactorily. Response, however, varies to a considerable extent from individual to individual, depending on the patient’s willingness to give him/herself up to the dream-like effects of the drug. This apparent contradiction—that the patient is at once hyperalert and perceiving at a vastly accelerated rate and in extraordinary new ways, while also experiencing mental images as though they were dreams—is one of the unique effects of the hallucinogens. Simultaneously, the patient’s relationship to him/herself is altered. Under the impact of LSD, the patient may stand outside his/her defensive structures and see them for what they are, methods of deflecting and reporting reality. Having seen through them, it becomes hard to take refuge behind them. This opens to conscious awareness a clearer, more realistic view of the world. The successful session is an immensely moving event.

CONCLUSION

In the search for new techniques that might enhance the efficacy of psychotherapy, particularly in those patients whose motivational powers have been weakened or lost, a compound such as LSD may hold considerable promise. This is reinforced by the fact that the experiences in this study indicate that trained personnel can implement the psychedelic procedure with relatively high safety and replicate its major objective, the peak experience, to a degree that makes the phenomenon difficult to sweep under the experimental rug. At the same time, it underscores the need for controlled studies, an objective that may be very difficult to achieve in view of the unique nature of the drug experience and its therapeutic objective.
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