

Residential Psychedelic (LSD) Therapy for the Narcotic Addict

A Controlled Study

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A controlled investigation was made of the rehabilitative efficacy of brief residential psychedelic (LSD) psychotherapy with chronic heroin abusers. Seventy-eight volunteer addict inmates from Maryland correctional institutions were randomly assigned to the following: a treatment condition—psychedelic therapy (incorporating one high-dose LSD administration) during a six weeks residence in a half-way house type of facility; or a control condition—an outpatient clinic program including daily urine monitoring and weekly group psychotherapy. All subjects (37 completers in each group) were treated identically save for the initial six-week period of residential treatment. Major outcome criteria were based on evaluative assessments (including daily urine surveillance) of the treatment and control groups covering the 12 months following discharge to the community. Comparative verified abstinence data throughout the first posttreatment year were significantly in favor of the treatment group.

A blueprint for the ideal treatment procedure for a narcotic addiction would include the following elements: It would be relatively brief and have broad applicability. It would enable the addict to be free from all pharmacologic dependence, allow him to become a law-abiding, productive citizen, and liberate him from the dysphoria and alienation that help maintain drug-seeking behavior. Along with extinguishing the primary target behavior of drug use, the ideal treatment procedure would decrease the types of psychopathological behavior that typically attend and sustain drug use. Currently, this ideal is but a visionary projection, and there is nothing on the experimental horizon to suggest that the medical or behavioral sciences will soon possess the technology required

to achieve this ideal. A more realistic task, therefore, is to explore the efficacy of procedures whose characteristics approximate those of the therapeutic benchmark outlined.

Since 1950, clinical investigations of the use of (LSD)-type drugs as adjuvants to short-term psychotherapy with character disorders as well as with classic neurotic disturbances have often given rise to spectacular therapeutic claims. Although there have been contradictory assertions as well, positive findings obtained elsewhere plus the results of the authors' own controlled studies with chronic alcoholics led to the present investigation of the efficacy of brief residential psychedelic therapy for chronic narcotic addicts. The effects of this treatment model, which in addition to daily urine monitoring incorporated a high-dose (200 to 500 µg) LSD administration at the culmination of several weeks of preparatory psychotherapy, were compared with those of a concurrent procedure involving daily urine surveillance and weekly group therapy in an outpatient abstinence program.

The Psychedelic Paradigm: Perspectives

The Drug Experience.—The essence of the psychedelic procedure lies in the nature of the psychedelic drug experience. LSD, mescaline, psilocybin, and a series of shorter-acting tryptamine derivatives such as DMT (dimethyltryptamine) and DPT (dipropyltryptamine) are included in the class of drugs called *psychedelic* (mind-manifesting).¹

A description of the exact manner in which these agents affect the nervous system is not available; however, alterations in the brain's biochemical and electrophysiological functioning are pervasive. Given this kaleidoscopic activation of higher nervous system functioning, the range of subjective experience during the 12- to 14-hour period of drug-altered reactivity is varied, cutting across spheres physical-somatic, perceptual-sensory, psychodynamic-aff-

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fective, and psychological-cognitive. In addition to profoundly affecting the experiential spectrum of one's everyday awareness, LSD is capable of producing altered states of consciousness of such ineffable intensity and unusualness that they seem of a totally new genre of human experience. These experiences have been described phenomenologically as cosmic, mystical, oceanic, peak, transpersonal, transcendental, etc. To the recipient they are experiences which seem to have ultimate metaphysical relevance, conversion-like experiences which, by definition, imply change.

The effect of high-dose LSD administration is a powerful, relentless inundation of those human functions generally subsumed under the term "ego." To the extent that the individual does not resist the drug action, ego-function is temporarily suspended, with a consequent supervening experience of the numinous quality described above. Conversely, to the extent that diffident emotions such as fear, distrust, and suspicion impede the process of ego-dissolution, the individual is rendered vulnerable to the full scope of negative (antitherapeutic) experiences of which the fragmented ego is capable. These range from subtle forms of depersonalization, detachment, and disorientation, to profound nadir-type experiences of ultimate terror and existential despair.

The preparatory phase of psychedelic therapy is expressly designed to create in the patient a confident receptivity to the drug experience, thereby maximizing the likelihood of an adaptive "regression in service of the ego" rather than anxiety-induced, psychotomimetic reaction. In brief, the *psychedelic experience*, which traditionally is hypothesized to be the pivotal event in effecting behavior change, is the result of a complex psychopharmacological catalysis, not an automatic consequence of drug administration.

Experimental Investigations.—One of the first clinical investigations to suggest that therapeutic benefit may attend such altered states of consciousness was Hoffer and Osmond's² LSD work with alcoholics, which also marked the emergence of psychedelic therapy as a distinct treatment modality. The authors observed that it was the positive, ego-transcending, psychedelic experience, rather than the hypothesized aversive (psychotomimetic) activity of LSD, that was correlated with rehabilitation. Despite subsequent widespread research activity,³⁻⁶ the psychedelic hypothesis was not convincingly substantiated. Either results were negative or sensational claims were vitiated by research inadequacies. Moreover, LSD was used in numerous ways, for diversified purposes, and with varied populations, yet all approaches were usually categorized under the mantle of LSD therapy, or even psychedelic therapy.

A double-blind, controlled study of the effectiveness of psychedelic psychotherapy with alcoholics was conducted at the Spring Grove State Hospital.⁷ In this study, it was observed that at the six-month follow-up, 53% of the high-dose group were rated by an independent evaluation team as "greatly improved" as opposed to 33% of the low-dose group ($P < .05$). The outcome was supportive of the psychedelic hypothesis, viz, that the LSD-induced psychedelic experience (the occurrence of which is more probable with

high dosages of LSD) can make a significant short-term contribution to the effectiveness of psychotherapy. There were no differences between high- and low-dose groups after 18 months.

The only controlled study of the treatment of narcotic addicts with LSD in the literature is that of Ludwig and Levine⁸ who observed that the addicts treated with hypnodelic therapy showed greater improvement at two months follow-up than addicts given other specific forms of treatment, ie, LSD and psychotherapy, LSD alone, psychotherapy alone, or hypnotherapy alone. Although the study suggested that LSD in conjunction with hypnosis and psychotherapy could produce therapeutic changes in addicts, the extent of improvement was possibly compromised by a failure to capitalize on the psychedelic peak period of drug-altered reactivity.

The following section describes a controlled investigation designed to assess the therapeutic efficacy of psychedelic therapy in combination with a brief period of inpatient residence. As such, the study was not meant to partial out the relative influences of drug and extradrug factors.

The Study

Setting and Subjects.—The setting of the study was an aftercare clinic for paroled narcotic addicts collaboratively administered by the Maryland Department of Parole and Probation and Friends Medical Science Research Center, Inc. This clinic, operating on the first floor of a large, reconditioned building on the fringe of the Baltimore ghetto area, embodies the "abstinence approach" to the treatment of addiction and utilizes daily urine surveillance and weekly group therapy to supplement traditional parole supervision.⁹⁻¹³ Since 1964, selected narcotic addict felons, who otherwise would not have been released to the community, were admitted to this community-based clinic directly from prison for intensive outpatient supervision during their paroles, which ranged from one to five years. Since compliance with the rules of the program was a condition of parole, deviation from the program's regimen, especially decompensation to narcotics use, constituted parole violation and occasioned reincarceration. Although only 20% to 25% of the clinic patients have been able to complete the program successfully (5% maintain complete abstinence), the clinic has provided an ideal setting and population on which to superimpose investigations such as the one reported here because of the extraordinary availability of daily urine surveillance data for the entire period of an addict's parole.

All male narcotic addicts in Maryland correctional institutions who had not previously participated in the narcotic outpatient treatment program and who satisfied the following selection criteria were eligible for the LSD project: (1) between 21 and 50 years of age; (2) at least 18 months remain before expiration of sentence (parole); (3) agreement to attend the outpatient clinic if paroled; and (4) the granting of written informed consent after a full explanation of the nature of the program. At this point in the screening, inmates were told that they might or might not receive LSD as part of their treatment. Also, during the screening process each inmate was given a battery of psychological tests and a physical examination. Anyone who showed evidence of organic brain damage, active liver disease, cardiovascular disease, or florid psychotic disturbance was excluded from further study.

After volunteering, subjects were randomly assigned to either a treatment or a control group. Upon release from the correctional institution, all subjects were treated identically as far as routine clinic procedures (urine monitoring, weekly group therapy, etc) were concerned with the exception that subjects assigned to the

Table 1.—Background Characteristics of Study Population

Characteristic	Total (N=74)	Treatment Group (N=37)	Control Group (N=37)
Average age (yr)	28.6	29.6	27.8
Black (%)	76	78	73
Legally married (%)	58	64	53
Approximate number of children	2	2	2
Protestant (%)	80	81	78
Education (yr)	8.6	8.8	8.5
Unskilled laborers (%)	54	51	56
Years institutionalized	4.5	4.2	4.7

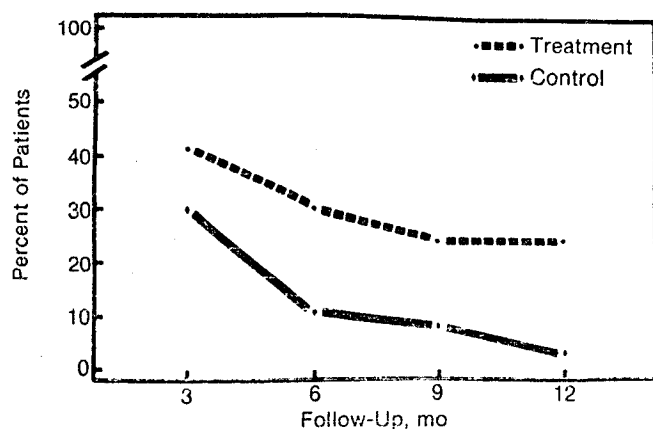
Table 2.—Information on Arrests and Narcotics Use for Treatment and Control Groups Prior to Participation in Study

Variable	Treatment (N=37)	Control (N=37)
No. of arrests	6.3	5.9
Age of first arrest	18.0	18.9
Age of first narcotics use	19.4	19.5

Table 3.— χ^2 Analysis of Differences in Abstinence at Selected Periods of Follow-up in Treatment (T) and Control (C) Groups

Follow-up Period		Abstinent	Non-abstinent	χ^2	P
1 (0-6 mo)	T	12	25	5.35	.03
	C	3	34		
2 (7-12 mo)	T	13	23	6.51	.02
	C	3	33		
3 (0-12 mo)	T	9	27	3.86	.05
	C	2	34		

Fig 1.—Percent of patients maintaining total abstinence at 3-, 6-, 9-, and 12-month follow-up.



treatment group underwent psychedelic treatment prior to their formal admission to the regular clinic program. During psychedelic therapy, patients resided on the clinic's third floor, which functioned as a small halfway house. The capacity of the unit was seven patients; five was the typical resident population.

Although it is questionable that anyone in prison can be considered a true volunteer, an attempt was made to provide alternatives and to avoid pressuring prospective candidates. Even though the correctional system's attempt to insure informed consent included showing candidates a film emphasizing the dangers of LSD, ultimately 78 volunteers were obtained for the project. Four subjects who were originally assigned to the experimental group subsequently requested transfer to the regular program. These subjects, though placed in the regular program, were not considered control patients. Moreover, the background and clinical characteristics of these four patients were not significantly different from those of the original group of subjects; thus, attrition did not seem to change the nature of the experimental group. Seventy-four patients comprised the final study sample. The characteristics of the 37 subjects assigned to each of the two groups indicated that randomization of subjects accomplished its purpose, ie, pretreatment between-group equivalence. Table 1 summarizes the demographic characteristics of the study participants. None of the differences between treatment and control groups were statistically significant. The same equivalence existed between pretreatment deviant behavior indices (Table 2) which are of greater relevance to prognosis.

Treatment.—During the patients' four to six weeks residence at the halfway house, no formal therapeutic activities were scheduled besides psychedelic therapy. Most free time was spent in playing pool, watching TV, listening to music, or reading. Urine specimen collection and laboratory testing for narcotic drugs was part of the daily routine.

Therapy was initiated as soon as the patient was admitted to the unit and consisted of approximately 24 hours of preparatory psychotherapy, spanning a five-week period, the climax of which was one high-dose (300 μ g to 450 μ g) LSD session. During the preparation, ascertaining genetic determinants of psychopathology and interpretive confrontations on the part of the therapist were of secondary importance to establishing a positive patient-therapist relationship of mutual regard and trust. The problematic, self-defeating nature of the patient's behavior was frequently but gently emphasized, as was the conspicuous absence of meaningful relationships in the patient's life. When the therapist judged that the relationship between the patient and himself was sufficiently solid to endure the vicissitudes of the lengthy (10 to 12 hours) LSD experience, the session was scheduled.

After the session, each patient received an additional week of therapy in order to integrate the experience. Following completion of treatment, patients were discharged from the inpatient unit to the outpatient clinic as soon as they satisfied the standard parole requirements of obtaining a job and satisfactory living arrangements.

During the year-and-a-half treatment phase of the project, the typical addict was observed to be a loner who never experienced genuine love or happiness and who dreaded his past memories. He seemed to allay his profound feelings of fear, depression, isolation, and rage through the use of narcotics. It is instructive to read the addicts' written comparisons of LSD and heroin effects. The following are representative of these reports:

Morris N.

Heroin has a numbing-like effect on you. It tends to relax you and somewhat takes you out and away from your surroundings and yourself. LSD makes you more aware of yourself and puts you right into whatever has been troubling you.

Robert W.

Comparing LSD to heroin is like comparing a speck of dust with a mountain. The difference is that heroin helps you to turn from yourself and LSD shows you how to face yourself.

Leonard N.

The two experiences of heroin and LSD are like night and day. Heroin is night, a time to sleep and with sleep, nothing comes but a dream. But with LSD, it is like dawn, a new awakening, it expands your mind, it gives you a brand new outlook on life.

There was a uniform view that the LSD experience provided a confrontation with one's problems rather than an escape from them. This may be the reason why none of the addicts reported using black-market LSD before their treatment. One patient reported using black-market LSD once after treatment; he has been abstinent from narcotics for one year. With regard to the program, the addict's typical attitude toward LSD was one of counterphobic fearlessness, and although he tended to avoid anything that would reactivate past memories and stir up considerable emotion, he was contemptuous of anyone who showed signs of reneging on his commitment to the program.

Results

Major outcome criteria include evaluative assessments of the treatment and control groups 6 and 12 months after release to the community. In terms of the simple dichotomy between those patients who maintained total, verified abstinence vs those who did not, the findings indicate that nine (25%) of the 36 subjects in the treatment group maintained total abstinence from narcotic drugs for at least one year as opposed to two (5%) of 37 in the control group ($P < .05$; see Table 3). An additional three addicts in the treatment group relapsed briefly, but they subsequently remained abstinent over one year, bringing the number of those achieving a period of at least one year's posttreatment abstinence to 12, or 33.3%. One of the original 37 patients in the treatment group died before reaching the 12 months follow-up point; he had maintained five posttreatment months of complete abstinence before dying of aortic stenosis. Figure 1 illustrates the percentages of patients maintaining total abstinence at four selected follow-up points during the first posttreatment year.

Addiction treatment evaluation should, of course, be judged on more than a simplistic index of total abstinence follow-up.¹⁴ Adjustment was therefore evaluated on a more global index. Figure 2 presents the rating scale which was utilized in the follow-up assessments. The "global adjustment rating scale," part of a comprehensive battery of adjustment scales for exoffenders, was designed to be utilized in lieu of the other scales which individually assess the subject's interpersonal, residential, and occupational adjustment. The scale is comprised of an assessment continuum which provides the rater with five general anchor points in objectively verifiable situations, each of which has within it a two-point range for adjustment subtleties and circumstances not otherwise specified in the criterion statement. Each of the statements applies to whatever is the total period during which the individual is being evaluated. The ratings, which are not dependent upon personal contact with the ratee, were made by an independent evaluation team after a fact-gathering interview with the parole agent responsible for the parolee in question. The unusual availability of follow-up data based

Definition:	Global adjustment is defined as the overall attainment and total life adjustment and stability of the individual.
Rating	
9-10	Excellent attainment and adjustment overall; no arrests or institutionalizations; excellent residential, Occupational, and interpersonal adjustment (no drug use).
7-8	Good adjustment in all areas; perhaps mild or recent deterioration; or poor performance in one major area (perhaps "chipping" or very recent drug use).
5-6	Moderate attainment and adjustment overall; prolonged pattern of 8-9-10 with recent deterioration. eg arrest or institutionalization (early heavy drug use, but now abstinent or heavy drug use during the last part of follow-up period).
3-4	Inconsistent attainment; on and off periods; long periods of 5-6-7 followed by obvious deterioration eg, institutionalization during second half of follow-up period (drug use for more than half of follow-up period).
1-2	Extremely poor adjustment; no periods of real stability; institutionalization (still in) during first half of follow-up period (drug use during period in community).

Follow-Up Period ☐ Rating ☐

Fig 2.—Global adjustment rating scale (McCabe and Shock, unpublished data, 1972).

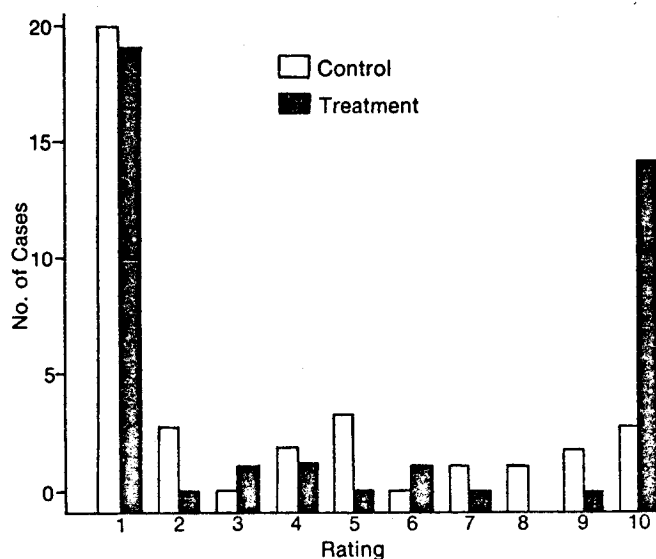


Fig 3.—Distribution of adjustment ratings at the 12-month follow-up point (period 2) for the treatment and control groups.

upon daily urine and intensive parole supervision allowed for a comprehensiveness of follow-up enjoyed infrequently by clinical investigators.

Although there was a trend ($P < .20$) in favor of the treatment group, there were no statistically significant differences observed between groups on mean follow-up ratings. The distribution of the comparative adjustment ratings for follow-up period 2 (Figure 3) shows that a significantly different impact on adjustment is effected only at the top of the adjustment continuum. That is, four times as many patients in the treatment group (13) than in the control group (three) received ratings of "10," with all other differences in ratings being negligible. This finding suggests that the experimental treatment significantly enhanced the probability of optimal adjustment, but not necessarily overall improvement across patients. Moreover, it seems that abstinence was so highly correlated with adjustment that the admittedly simple dichotomy of abstinence vs nonabstinence was, in fact, the best indicator and predictor of outcome.

Case Illustrations

Much of the flavor of the psychedelic procedure is obscured in third-person description and nomothetic statistics. Therefore, two case illustrations are presented to elucidate the nature of the treatment as viewed by the addict and the kinds of experiences elicited by LSD.

An Unsuccessful Treatment Case.—Theodore W., a 28-year-old married father of three children (one illegitimate), quit school in the 11th grade and worked a series of short-lived jobs as store clerk, porter, caddy, painter, and dishwasher. Theodore's drug history began with cough syrup (codeine) and progressed to heroin "because they stopped selling syrup a lot of places." He used heroin regularly until interrupted by imprisonment. Prior to his most recent incarceration for shoplifting, he had served two years for grand larceny and several jail terms of lesser length for shoplifting.

The patient's pretreatment psychological tests showed him to have an IQ of 128 (Raven Progressive Matrices) and an Minnesota Multiphasic Personality Inventory characterized by moderate elevations on scales measuring psychopathic deviance (Pd), paranoia (Pa), and depression (D). After six weeks (36 hours) of preparatory psychotherapy, 350 μ g of LSD was administered in two doses (200 μ g and 150 μ g) $\frac{1}{2}$ hour apart. The following excerpt is from the patient's retrospective session report:

I could feel the tension building up listening to the music. I was making myself afraid by self-imposed mistrust. I am holding Doc's hand for support and not letting myself go completely. My stomach began to feel nauseated somewhat and I put emphasis on this rather than something of importance. I knew what I was doing; I was trying to avoid myself for some reason. . . .

I pictured myself as a star among hundreds of other stars . . . , dancing to the music. The music would build up to a certain point and then burst and I would do the same. This relieved a lot of the tension that I previously felt.

I started to relax more and more. I liked the way I was feeling, but I still kept a shadow of a guard up. This shadow stopped me from seeing as much as I could have. I was looking for a demon to jump out at me any moment.

I saw myself in what appeared to be a struggle with a woman. She was pulling one way and I was pulling the other. She impressed me as trying to be more dominant than myself, trying to have complete control. This is the significance I put on this scene; her trying to have her own way, and me not letting her. I'll bend for her but I won't break. I saw the scene several times and it turned out the same way each time.

Another scene that interested me was of an average Negro neighborhood in the ghetto. Kids playing in the dirty streets. Their mothers were glad that they are out there so they wouldn't get on her nerves. She seems to be satisfied with the situation the way it is, living in almost poverty if not complete. Her main interest appears to be how she looks, not whether the kids have a proper meal this evening or whether any cars are running up and down the streets. She will complain about her environment but that's as far as it will go, trying to really do something about herself is out of the question.

I saw myself for what I was—phony, trying to make an impression on people, putting too much value on materialistic things. I had what I needed to get along in life all the while but I didn't realize it until now.

The experience reported here is typical of patients whose fears and mistrust preclude the complete ego regression considered necessary for optimally effective psychedelic therapy. The partial regression and loosening of defenses during the LSD experience tend to precipitate panic, somatic complaints, and abreaction. Theodore's struggles to maintain ego control seemed to activate the memory of earlier interpersonal struggles to maintain identity and control. The therapeutic significance of such phenomena seems minimal if one uses as a criterion the failure of psycholytic therapy, whose rationale is anchored in the activation and resolution of such experience.

Despite Theodore's report ending on an optimistic note, the patient returned to narcotics use six weeks after treatment and was reinstitutionalized within ten weeks.

A Successful Treatment Case.—The patient, Wally B., a 27-year-old, divorced man, was the youngest of two male children, one of whom, a drug user with an extensive criminal record, was shot to death in an argument five years previously. Wally was an infant when his mother died.

Thereafter, he lived consecutively with his father, half-sister, and paternal aunt. His first appearance in Juvenile Court was at age 11 for larceny. He was committed to a juvenile home on three separate occasions (ages 11, 12, and 13) for auto larceny charges. From there, he was released to placement in a foster home. Academically, he failed grade seven, had a record of truancy, and quit school at age 16.

Mr. B. was introduced to narcotics by his brother. During the prior seven years, except during periods of incarceration, he used heroin and "speedball" on a regular basis. His adult criminal record showed an 18-month sentence for burglary, several short sentences for automobile thefts, a three-year sentence for forgery, and a recent sentence of five years for "storehouse breaking."

The patient's pretreatment IQ scores were 100 (Otis) and 113 (Raven); his MMPI profile was typical of narcotic addicts: primary elevations on scales measuring psychopathy (Pd) and hypomania (Ma) with secondary elevations on scales measuring depression (D) and paranoia (Pa). Essentially, the MMPI profile was that of a character disorder experiencing moderate depression with suspiciousness, poor judgement, and impulsive acting-out as likely behavioral characteristics.

Wally received 16 hours of preparatory psychotherapy spanning three weeks. On the morning of his session, he received the standard two-stage administration of 300 μ g of LSD:

Entering my trip, I went right into nature; . . . nature in lower forms and bright, beautiful colors, so beautiful that my eyes seemed not to believe what they were seeing . . . and then I journeyed on . . . into a one cell creature of nature, and while entering this state, I became nature and life, and I lived as one and moved as one with life. The one cell creature built up, and my body changed into a million different forms, even the one that seemed to be monstrous became very beautiful and peaceful. . . . It felt more than beautiful; it gave me an everlasting ecstasy, and I journeyed on in search of more of the cosmos, the universal dream of a lifetime; and I journeyed on. . . .

The music took me far out of the physical world, and then I found myself in a place where the physical form can't go—only after death can you enter. Then I died in an ecstasy of death peace and went to a place, that was not a place, but a universe of forms, colorful dreams of the entire physical reality of life, but also a Utopia, a big, beautiful perfect life dance (on the stars) of men and women's souls. It gave me new peace and beauty, and the vision and feeling of love and caring, of happiness over sorrow—a condition that nature is longing for people to do, to become one (with all life forms), and I journeyed on. . . .

I ran after the sound of the music, and I went up and up a million times and came down even farther, then I went up and had ecstasy five times more beautiful than the first, the feeling of love, and then the world became love, and the music went up blossoming into a million brighter colors, and I experienced more ecstasy and peace, and found beauty in love; and I journeyed on. . . .

I became all things of life, beings falling into my own body, and seeing me enter other things, as a one cell creature and big, beautiful colors.

In space, I lost track of time and body. I was the universe, the big, beautiful universe, and the universe spoke to nature and nature spoke to me, saying, "I am God, you are God, all is God." Light began to appear, so beautiful it was unreal, and yet I knew it was real—so real. Beauty found a greater beauty and it became peaceful, sweet, warm and I loved it. I went higher as the music

went higher, falling in death, loving it in ecstasy, so peaceful, so sweet, and ecstasy came again, and I went back out into space farther and farther, ecstasy after ecstasy, going through darkness and all things; it was peaceful and warm, and I journeyed on. . . .

The preceding report provides an example of LSD session content devoid of traditional psychodynamic content and reflects perfectly the type of experience considered the hallmark of psychedelic treatment.

For the past 18 months, except for a three-week period of sporadic drug use one month after discharge, Wally has been totally abstinent from narcotics usage. Lest the reader assume that a heavy editorial hand was administered to the patients' LSD reports, it should be noted that the articulate quality of these reports is a frequently observed phenomenon following psychedelic therapy. Patients consistently produce written accounts of their drug experiences which belie their academic and social backgrounds. Although these reports do not always reflect the transcendental-poetic characteristics of Wally B.'s report, an "inspired" quality is uniformly observed.

Comment

The present study suggests that LSD therapy conducted as described, in combination with a brief period of inpatient residence, may be capable of making a contribution to the rehabilitation of chronic heroin abusers. The experimental design of the study allows no certain inferences to be drawn about the relative efficacy of the individual components of the treatment procedure. Although no consistently positive claims have ever been associated with individual psychotherapy and/or brief residential treatment for chronic heroin abusers, since these approaches were incorporated in the treatment model, one is not able to say that it was the drug factors alone which accounted for the therapeutic yield. Moreover, within the drug experience, per se, no conclusions can be drawn about the relative efficacy of "psychedelic" vs the other psychopharmacologically induced phenomena. Only additional controlled research can definitively assess the therapeutic role of the psychedelic experience. However, apropos this question are some "soft" data from a "psychedelic experience questionnaire"¹⁵ administered to every patient after their LSD experience. Results from this psychometric assessment indicated that of the 36 addicts in the treatment group eligible for the 12-month follow-up, 29 (80%) achieved the psychedelic peak experience. Within the group of "peak reactors," a variety of community adjustment ratings was observed; global adjustment scores ranged from 1 to 10 with a mean of 4.7—identical to the treatment group as a whole. However, of the 13 addicts who received perfect community adjustment scores of "10" at the 12-month follow-up, 12 had been psychedelic "peakers." The authors' clinical impression is that the peak experience is a facilitative, but hardly an essential or sufficient ingredient for behavior change.

Despite the fact that the study should be considered only a tentative probe into an area which needs a great deal more controlled research, there were several observations which should be mentioned as making the findings significantly more impressive: (1) the patients generally

were unmotivated. Many were initially defiant and all candidly admitted volunteering for treatment solely in hope of being favorably considered by the parole board for early release from prison; (2) a wide sociocultural gulf existed between the white therapist and the predominantly black patient group. Black therapists could be expected to have a less difficult time establishing with the patients a relationship of trust, a crucial determinant of positive therapeutic outcome; (3) only one LSD administration was included in the treatment procedure. This one-session model, though methodologically expedient, hardly represented the optimal approach for maximum therapeutic gain. A multiple-session model in which the drug is administered until the desired psychodynamic and/or psychedelic experiences are achieved would probably facilitate positive results.

In conclusion, a worthwhile direction for future research would seem to be as follows: remedying some of the indicated shortcomings of the present study; designing future research paradigms such that relative values may be attached to the individual components of the procedure; treating patients who are not just making token gestures toward treatment; investigating psychedelic drugs which have a briefer duration of action than LSD; and perhaps, attempting treatment on an outpatient basis and in combination with other approaches such as narcotic agonist or antagonist treatments.

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The Global Adjustment Rating Scale is available from the authors on request.

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