

'Hitting Highs at Rock Bottom': LSD Treatment for Alcoholism, 1950–1970

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Summary. In the 1950s, researchers in the Canadian province of Saskatchewan began treating alcoholics with d-lysergic acid diethylamide (LSD) and achieved significant rates of recovery. Psychiatrists, including Humphry Osmond who coined the term 'psychedelic' while working in Saskatchewan, believed that the successful treatment of alcoholism with biochemical means would scientifically prove that the condition was a disease and not the result of a weak or immoral character. Initial experiments demonstrated unprecedented rates of abstinence among alcoholics treated with LSD. The approach gained support from the provincial government, local chapters of Alcoholics Anonymous and the Bureau of Alcoholism, all of which collaborated in a public campaign that supported LSD treatments. Although Alcoholics Anonymous endorsed psychedelic therapy, the Addictions Research Foundation did not. The leading Canadian authority on addictions disputed the findings in Saskatchewan and challenged these advocates of psychedelic treatments to conduct trials with proper controls. Despite subsequent efforts to demonstrate that the success of psychedelic therapy relied on both medical and non-medical factors, the treatment failed to satisfy current medical methodology, embodied in controlled trials. By the late 1960s, LSD had become a popular recreational drug and gained media attention for its association with counter cultural youth, social disobedience and anti-authoritarian attitudes. All this served further to erode support for its clinical status.

Keywords: LSD; alcoholism; treatment; post-Second World War; Saskatchewan; psychiatry; Humphry Osmond; psychedelic therapy

In the early 1950s, clinical researchers exploring the therapeutic value of the psychedelic drug d-lysergic acid diethylamide (LSD) achieved intriguing results with subjects suffering from alcoholism. Spiritual or transcendental experiences produced by LSD were a powerful adjunct to rehabilitative psychotherapy for alcoholics. They provided a profound and chemically-induced awakening or enlightenment that often led to sobriety. This article investigates LSD as a treatment for alcoholism. The increased focus on drug therapies brought changes in treatment options and ushered in new theoretical explanations for the causation of alcohol abuse as a disease.

The concept of alcohol addiction increasingly attracted medical attention in the first half of the twentieth century. Alcoholism established itself as a medical problem rather than a moral failing.¹ The concept of addiction or abuse as a disease was not a new concept in the 1950s, but attention to 'problem drinking' entered a phase of renewed

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¹Conrad and Schneider 1992; Valverde 1997, pp. 251–68; Dowbiggin 2000, pp. 37–69; Room 2003, pp. 221–34.

interest during this period.² In some ways, the history of the disease reveals more about changing political and social attitudes towards drinking than medical innovation. LSD treatments were introduced alongside an upsurge of interest in mitigating the consequences of excessive alcohol consumption during a period of post-war reconstruction.

Historians agree that during the 1950s problem drinking, or alcoholism, moved into the medical arena. They disagree, however, on the motivations for this transition. Some scholars view the medicalisation of alcoholism as the result of pioneering medical innovations in alcohol studies, especially those conducted by Yale University professor E. M. Jellinek. According to these scholars, new clinical studies and medical approaches offered compelling evidence that problem drinking had a genetic or biological explanation and should thus be treated by medical professionals.³

Other scholars have argued that, despite these clinical advances, the prime mover behind medicalisation was not, in fact, medical. They claim that acknowledging alcoholism as a medical disorder rather than a moral failing facilitated the expansion of state-funded treatment centres, identifying the condition as a primarily political dilemma. Governments reluctant to direct public funds towards a moral or social problem were now faced with the prospect of including alcohol treatment centres in the state-supported health system.⁴ Yet other scholars maintain that commercial considerations played the most significant role in changing perceptions of problem drinking. They argue that the acceptance of the condition as a disease increased profits for the alcoholic beverage industry, which could now more persuasively suggest that alcoholism only affected specified individuals. Punitive prohibition policies would therefore be futile.⁵

Each of these positions illustrates the multi-faceted process involved in identifying and disseminating the idea of alcoholism as a medical disease. Historians disagree on how to prioritise motivating factors. This case study maintains that a confluence of medical and non-medical factors influenced the identification and acceptance of problem drinking as a disease and these factors cannot be isolated from one another.

Alcoholism as a Biochemical Disease

The psychiatrist Humphry Osmond was one of the key figures in the development of LSD treatments for alcoholism. Osmond was a Senior Registrar at the psychiatric unit at St George's Hospital in London, England in 1950, where he worked closely with his colleague John Smythies and cultivated a keen interest in chemically induced reactions in the human body. Smythies and Osmond examined the properties of mescaline, the active agent in the peyote cactus. Nearly two years of research led them to conclude that mescaline produced reactions in volunteers that resembled the symptoms of schizophrenia, including hallucinations, delusions, disorganised thoughts and behaviour.⁶ Further work suggested that mescaline's chemical structure was remarkably similar to adrenaline. These findings led to the theory that schizophrenia resulted from a

²Term used by Heather and Robertson 1997.

³Page 1988, p. 1098; Tracy and Acker (eds) 2004, pp. 61–87; Heather and Robertson 1997, ch. 2.

⁴Thom and Berridge 1995, p. 91.

⁵Burnham 1993; Sournia (ed.) 1990, p. xv.

⁶Smythies 2004, n. p. I am grateful to John Smythies for sharing his unpublished manuscript with me.

biochemical ‘imbalance’ in the sufferer. This tantalizing hypothesis captivated Osmond’s interest for the next two decades and inspired him to embark on a variety of experiments.

Osmond and Smythies’ colleagues at St George’s Hospital were not particularly interested in their biochemical research, but Osmond was intent on continuing the work. After responding to an advertisement in *The Lancet* for a deputy director of psychiatry at a Canadian Mental Hospital in Weyburn, Saskatchewan, he and his family moved to Canada in October 1951. In the prairie province of Saskatchewan he established a biochemical research programme. Within a year of arriving in Weyburn, Osmond met Abram Hoffer. Hoffer had grown up in a small farming community in Saskatchewan. He had graduated from the provincial university in Saskatoon with a Bachelor of Sciences degree in agricultural chemistry in 1937. Seven years later he graduated with a Ph.D. in agriculture before beginning a medical degree the following year. In medical school he developed a particular interest in psychiatry. On 1 July 1950, the Saskatchewan Department of Public Health hired the recently graduated Hoffer to establish a provincial research programme in psychiatry.⁷

Hoffer and Osmond soon joined forces and began collaborating on their mutual research interests in biochemical experimentation. Osmond’s curiosity about mescaline soon introduced him to d-lysergic acid diethylamide (LSD), which, he discovered, produced similar reactions to those observed with mescaline. However, LSD was a much more powerful drug. As in the case of mescaline, early trials with LSD, too, seemed to substantiate their theory that mental illness had biochemical roots. During their initial LSD experiments, Hoffer and Osmond hypothesised that the drug might possess therapeutic benefits. For example, experiments with volunteers demonstrated the drug’s enormous capacity to bring individuals to new levels of self-awareness. Following an LSD experience some people felt that they had gained a different perspective on their role in community, family, or society in general. Some described this feeling as a new sense of spirituality; others contended that the change was essentially philosophical. Hoffer and Osmond wanted to know whether change of this type might have an effect on modifying an individual’s behaviour or habits. In 1953 they began introducing the drug to a new set of subjects: diagnosed alcoholics. They wanted to test its curative effects on individuals for whom temperance reformers advocated the development of more will power and self-actualisation. Perhaps, they reasoned, the LSD reaction would cultivate precisely that kind of strength and insight.

The Drinking Society

Osmond reasoned that, given the growing social acceptance of drinking in the period after the war, it would not be difficult to convince lay people that excessive drinking or alcoholism, as a disease, constituted a meaningful concept. He acknowledged that failed prohibition efforts in North America meant that a great number of individuals now supported the idea of responsible drinking. Many people, historically and cross-culturally, had demonstrated the capacity to enjoy alcohol consumption and incorporate it into responsible social interactions. Thus, excessive drunkenness must display a lack of

⁷Saskatchewan Archives Board (hereafter referred to as SAB), Correspondence, McKerracher, 20 April 1950, p. 1.

control on the part of the individual.⁸ The problem, Osmond contended, was that medical researchers had been preoccupied with gathering evidence proving that social factors influenced the development of excessive drinking behaviour. Variables such as class, gender, race and ethnicity had emerged from earlier studies as important indicators for excessive drinking. But Osmond maintained that emphasis on socio-demographic factors had produced much worthless information. For example, the observation that Irish men drink more than Jewish men offered no prescriptive solution to the problem of alcoholism. He suggested that 'the forcible conversion of Irishmen to Judaism would not commend itself much to either of those ancient and resilient people'.⁹ Instead of concentrating on examining the social characteristics of problem drinkers from an external vantage point, Osmond recommended exploring the social characteristics of what he referred to as the 'drinking society'.

Across North America, Osmond estimated that approximately a hundred million people belonged to the drinking society, of whom roughly 5 per cent developed alcoholism.¹⁰ He suggested that this social group existed across linguistic, gender, class, race, and age categories and acquired their own distinctive culture and rituals, centred on drinking. Individuals who became alcoholics were—somewhat ironically—leaders or heroes within this society. For example, Osmond stated that:

an alcoholic-to-be is liable to be admired early in his career; indeed he may even be envied by members of the drinking society, his attainments may well receive approbation and he will be invested with status and prestige. At this time his activities are not considered rash or imprudent—quite the reverse. His drinking companions may well feel a little wistful that they do not have a head like his and that their legs are not hollow. It is unlikely that anyone rewarded in this manner by his peers will stop to ponder the possible long-term consequences of what may seem to be a wonderful gift.¹¹

According to Osmond, the escalation of acceptable drinking into excessive (problem) drinking took place within a specific socio-cultural context, which excluded restraint. Alcohol consumption and machismo existed as mutually reinforcing factors; excessive drinking earned additional status. Jake Calder, director of Saskatchewan's Bureau on Alcoholism, agreed with Osmond and stated that intoxication had specific rewards for young adult males because 'it is considered to be a sign of masculinity and adulthood, even though it is disapproved by many other elements of society'.¹² Similarly, Seldon Bacon at Yale University recognised that the American frontier society valued an image of masculinity, which, among much else, habitually included drinking.¹³ While the sober observer may have concluded that the leaders of the drinking society exhibited a lack of control, the conventions of the drinking culture implied the reverse: he who held his liquor demonstrated control, authority, and even

⁸SAB, Osmond, 'Notes on the Drinking Society', 1967, p. 1.

⁹Ibid.

¹⁰SAB, Osmond 'Notes on the Drinking Society', p. 2.

¹¹SAB, Osmond 'Notes on the Drinking Society', p. 3.

¹²SAB, 'Spiritual Factors in the Recovery of Alcoholism', p. 8.

¹³Bacon 1958, pp. 55–64.

leadership.¹⁴ By envisioning a medical approach that adopted an empathetic perspective and appreciation for the social context of the drinking society, Osmond championed a disease model, accompanied by a treatment that acknowledged the nature of the drinking society.

According to Hoffer, the idea of relating the LSD experience to alcoholism occurred to him one evening while he and Osmond were at a conference in Ottawa in 1953. They had arrived in the capital to address the Department of National Health and Welfare, but had difficulty sleeping in the hotel the night before the meeting. So they decided to forgo rest and spent the night in discussing contemporary challenges facing psychiatrists. Around four in the morning they floated the idea that LSD experiences were remarkably similar to descriptions of delirium tremens, or the effects of an alcoholic 'hitting bottom'. Hoffer recalled that the notion 'seemed so bizarre that we laughed uproariously. But when our laughter subsided, the question seemed less comical and we formed our hypothesis Would a controlled LSD-produced delirium help alcoholics stay sober?'.¹⁵ Contemporary medical literature suggested that approximately 10 per cent of delirium tremens (DTs) had fatal consequences for patients, but that DTs also might mark a critical turning point in the course of the disease. If an LSD reaction could simulate DTs, it might also help patients to overcome their desire to drink to excess. On returning to Saskatchewan, Hoffer and Osmond decided to test this assumption.¹⁶

Back on the prairies, Osmond treated one male and one female patient, each with a single dose of 200 micrograms of LSD. Although he had already determined that smaller amounts of the drug produced profound results—similar to DTs—Osmond reasoned that alcoholic subjects required a larger dose.¹⁷ Patients in the initial study were chronic alcoholics in the Saskatchewan Mental Hospital in Weyburn. Following the LSD treatment, the male patient stopped drinking and remained sober for at least six months, at which point the follow-up study ended. The female patient continued drinking after the experiment but stopped during the follow-up period. The results were puzzling, and Osmond and Hoffer concluded this miniature experiment showed that LSD might have a 50 per cent chance of helping alcoholics. Over the next decade, they tested this hypothesis on over 700 patients and claimed that results were astonishingly similar to those in the first experiment.¹⁸

Despite the original contention that LSD simulated psychotic symptoms, the results of the trials on alcoholics demonstrated that a 'psychedelic' or mind-manifesting experience offered real therapeutic benefits.¹⁹ Hoffer maintained that 'from the first we considered not the chemical, but the experience as a key factor in therapy—in fact, we used a sort of psychotherapy made possible by the nature of the experience'.²⁰ This assertion

¹⁴*Ibid.*, pp. 1–10.

¹⁵Hoffer 1967, p. 343.

¹⁶*Ibid.*, pp. 343–406.

¹⁷Osmond, and others, studied the doses through self-experimentation before administering them to patients. Clancy *et al.* 1954, pp. 147–53.

¹⁸SAB, Osmond, 'Notes on the Drinking Society', p. 1. For published results, see Chwelos *et al.* 1959, pp. 577–90.

¹⁹Osmond coined the term psychedelic in 1957 to mean mind-manifesting, or to bring to light.

²⁰Hoffer 1966, p. 19.

differentiated LSD treatment from other psychopharmacological therapies by enlarging the definition of disease and treatment to include the more subjective area of experience.²¹ The model of alcoholism proposed in Saskatchewan differed from the contemporaneous research undertaken by E. M. Jellinek at Yale, which did not take into account subjective experiences.²² LSD was difficult to control and outcomes seemed uncertain, which made several of Hoffer's and Osmond's colleagues reluctant to support their therapy. At the heart of the enterprise lay a desire to produce an experience that deeply affected research subjects, to the extent that they might change their behaviour. In Hoffer's and Osmond's view, this approach not only presupposed a medical model of alcoholism as a disease, but it also aimed at restoring self-control. Drugs alone constituted an insufficient therapeutic modality. Rather, Hoffer and Osmond argued that treatment must also re-establish personal control. Because LSD acted upon the individual both chemically and psychologically, psychedelic therapy constituted the better option.

Although Hoffer and Osmond acknowledged that LSD produced highly individualised results that made classification of reactions difficult, they recognised the need to identify common trends to promote their therapy within the framework of mainstream psychiatry. Their earlier biochemical research on schizophrenia supplied some of the theoretical background for explaining the results of their trials with alcoholics. Accordingly, they elaborated a biochemical explanation based on their previous studies that demonstrated an increased rate of adrenaline production in patients with schizophrenia.²³ Related research on chronic alcoholics indicated comparable levels of adrenaline production, particularly during delirium tremens. Thus Hoffer and Osmond hypothesised a biochemical cause for alcoholism.

In 1955, psychiatrist Colin Smith conducted another LSD study in Saskatchewan, involving 24 alcoholics from the University Hospital in Saskatoon. Patients in this study had been diagnosed with chronic alcoholism and had agreed to a two to four week stay at the hospital. During the first part of their stay, Smith encouraged them to talk about their drinking while he explained the objectives of the trial. Although previous research indicated that LSD experiences varied widely from one individual to another, he made an effort to prepare subjects for the kinds of responses to be expected from the drug. An inventory of experiences demonstrated the strong likelihood that subjects would encounter changes in sensory observation, including distortions in perception, disorientation, and sensory over-loading. In addition, Smith knew that patients often felt that LSD affected perception of time.²⁴ These kinds of general observations provided patients with some ideas about how the drug might affect them during and after the experiment.

In the final days of their stay, patients received a single dose of LSD ranging from 200 to 400 micrograms, or half a gram of mescaline.²⁵ The experiment took place in the

²¹SAB, J. F. A. Calder, 'Experience with New Drug', (unpublished) 18 and 19 May 1960.

²²Mangini 1998, pp. 381–6.

²³Abramson (ed.) 1967, pp. 343–406.

²⁴SAB, 'Inventory', p. 2.

²⁵Researchers in British Columbia followed a similar approach but used even larger doses ranging from 400 mcg to 1500 mcg of LSD. They maintained that the higher doses were nonetheless minute when compared with other drugs. For a discussion of these doses, see Smart *et al.* 1967, p. 91 and Abramson 1967, p. vii.

hospital, but usually a patient spent the day in a private room or in a doctor's office, accompanied by a nurse and/or a psychiatrist. In the early trials, no concerted efforts were made to create a stimulating environment, but as the trials progressed, stimuli such as music, fresh cut flowers, paintings and other visual aids were added to intentionally create an environment with perceptual distractions.²⁶ Staff encouraged patients to enjoy the experience and either talk to, or withdraw from, others in the room. Approximately eight hours after consuming LSD, the experience began to recede and patients returned to the ward where they might take a second drug to help them sleep. The following day, subjects were encouraged to compose a written description of their experience, without interference from hospital staff.

In Smith's trial, patients remained in the hospital for a few days following treatment. He strongly advised them to take up or renew their membership of Alcoholics Anonymous on discharge.²⁷ A follow-up for Smith's trial ranged between three months and three years and relied on the cooperation of family, friends, community organisations, employers, and Alcoholics Anonymous. Interviews with patient contacts in the community, as well as family members, allowed researchers to conduct assessments that went beyond the clinical format. The final report from Smith's study stated that none of the patients had become worse. While twelve patients remained 'unchanged', six were stated to have 'improved' and the other six patients were described as 'much improved'.²⁸ To qualify as 'much improved', a patient needed to exhibit complete abstinence from alcohol for the duration of the follow-up period.²⁹ This status applied to those demonstrating a significant reduction in alcohol intake in combination with changes in lifestyle, including more stable personal relationships and regular employment.³⁰

Alcoholics Anonymous

As Smith's experiment illustrated, the trial involved the community at two levels. Local participation was necessary for coordinating follow-up reports on the drinking habits of patients. Conversely, community involvement generated support for medical research and helped reduce political opposition to treating alcoholism in publicly funded treatment centres. Actively involving non-alcoholic members of the community in the treatment programme extended the medicalisation of alcoholism into public discourse surrounding problem drinking. Medico-legal presentation of alcoholism as a masculine disease

²⁶This idea came from Al Hubbard who worked at the Hollywood Hospital in New Westminster, British Columbia. Hubbard was well known to Hoffer, Osmond and other LSD researchers.

²⁷Smith 1958, pp. 406–17. Before conducting this study, more research into appropriate doses confirmed that alcoholics had a higher tolerance to psychedelic drugs than non-alcoholics. Throughout these studies, researchers in Saskatchewan worked closely with local branches of Alcoholics Anonymous, both to recruit volunteers and to improve treatment and follow-up care. Bill W. himself, founder of Alcoholics Anonymous, became an advocate of Hoffer and Osmond's therapies; Kurtz 1979, pp. 138–9.

²⁸Smith 1958, p. 411.

²⁹Follow-up periods varied widely. Ideally, patients were monitored for a minimum of two years after treatment. Some patients moved out of the community and did not remain in contact with either the research team or Alcoholics Anonymous, which made extended follow-up problematic. Conversely, some patients maintained contact for several years beyond the two-year period.

³⁰Smith 1958, p. 408.

changed popular perceptions about whether those suffering from the condition should be subjected to medical treatment or legal sanction.

This medical–communal alliance strengthened non-medical organisations in their attempts to help alcoholics. Alcoholics Anonymous (AA) had been founded in 1935 as a body dedicated to assisting individuals with an ‘honest desire’ to stop drinking. By 1941, AA boasted over 8,000 members in chapters across North America and it quickly surpassed medical intervention in reports of the fight against excessive drinking.³¹ The principles of AA were not grounded in medical expertise but relied on fraternal support offered by members who shared experiences with one another. This approach created an alternative non-drinking society, which shaped its own rules to the needs of problem drinkers. The collegial function of the organisation continued to provide recovering alcoholics with a social outlet—an important aspect, as several members had highlighted the central role of shared activities surrounding drinking. By providing peer-evaluated and empathetic therapy, AA had by the late 1940s become the most effective form of treatment and promised a 50 to 60 per cent chance of recovery.³² This rate exceeded the medical rate, based on aversion therapy, or the use of chemical substances to suppress the desire to drink, by between 10 and 30 per cent.³³

In addition to providing social space and peer support for individuals struggling with excessive drinking, AA adopted a ‘twelve-step’ tradition or programme for combating alcoholism. Part of the process involved early recognition of the ultimate authority of God.³⁴ Co-founder of AA, Bill W., believed this stage as critical for beginning the recovery process. It was ‘spiritual’ or religious and reminded the individual that he or she was neither alone, nor wholly self-sufficient. Instilling these values became an integral part of breaking with the patterns and conventions of membership of a drinking society. Bill W. recalled that ‘it was only a matter of being willing to believe in a power greater than myself. Nothing more was required of me to make my beginning.’³⁵ Arriving at this perspective was often the most difficult obstacle for individuals trying to overcome a desire to drink, although more individuals achieved spiritual epiphany after experiencing delirium tremens. For many alcoholics, however, DTs proved fatal. As a consequence, AA devised strategies of bringing members to a state of ‘spirituality’ before going through delirium tremens.

The LSD treatments being developed in Saskatchewan in the 1950s offered a chemically induced experience that often generated a sense of spirituality. Subjects frequently described their reactions in spiritual terms and claimed that the experience had an overpowering effect on self-perception. The frequency of these kinds of responses led some researchers to believe that LSD was in fact a psychoactive substance capable of creating this specific kind of reaction. In the late 1950s, Bill W. himself experimented with LSD.

³¹ Alcoholics Anonymous 1955, p. xviii; W. 1994, pp. 259–62.

³² W. 1994, p. 571.

³³ The most commonly cited alternative treatment was antabuse, which produced extreme nausea when individuals drank even small amounts of alcohol. It acted as a form of aversion therapy; Conrad and Schneider 1980, p. 74; Barrera, Osinski and Davidoff 1994, pp. 263–7.

³⁴ Step Two reads: ‘For our Group purpose there is but one ultimate authority—a loving God as He may express Himself in our Group conscience’; Alcoholics Anonymous 1955, pp. 564–5.

³⁵ *Ibid.*, p. 12.

Although he was reluctant to support the use of drugs that might compromise sobriety, the promise of spiritual experience intrigued him.³⁶ After a few sessions, Bill W. discontinued experimentation because of his role as the only surviving co-founder of an organisation devoted to sobriety. Nevertheless, he continued to correspond with Hoffer and Osmond in Saskatchewan and quietly supported their efforts to introduce 'spirituality' into medical discourses on alcoholism.

Saskatchewan's director for the Bureau on Alcoholism, Jake Calder, also believed that LSD offered an effective form of medical treatment because it addressed the spiritual needs of the alcoholic and that these had been excluded from medical models.³⁷ He explained that, on the one hand, AA benefited from medical research into the disease since it provided scientific evidence that undermined arguments about the inherent moral weakness of alcoholics. On the other hand, most medical theories betrayed the experience of alcoholism by ignoring spiritual and social aspects of the disease as it was actually experienced by the patient.³⁸ By working closely with AA, and developing a clinical approach that paid attention to the experience of the addiction, Calder endorsed the research programme in Saskatchewan as the best available medical treatment.

Following Smith's original trial in 1958, the Saskatchewan researchers prepared a scientific account of the immediate results of the clinical trials and the lay perspectives collected during the follow-up period. Contrary to their earlier hypothesis that LSD produced a reaction similar to delirium tremens, they now suggested that the drug caused 'an upsurge of previously repressed material', or, in some cases, 'the effects resembled the state of religious conversion'.³⁹ However, they maintained that psychedelic treatment continued to rely on a biochemical understanding of alcoholism as a disease. In addition, intangible and often indescribable experiences left patients and psychiatrists alike struggling to find appropriate language to explain the effects of the drug.

A relatively typical example of an alcoholic patient's reaction was included in a psychiatric report, which stated that:

he had a momentary oneness with God. Had a vision while lying [down] with eyes closed of a spiral staircase with himself talking to another person. This appeared to have great meaning to him. . . . He seems to have gained some insight and understanding of himself.⁴⁰

This reaction matched the ideals of AA by stimulating an overtly 'spiritual' experience and it persuaded the Saskatchewan group to continue conducting LSD trials with alcoholics who expressed a desire to stop drinking. Linking material of this kind to AA principles

³⁶Lobdell 2004, p. 250.

³⁷SAB, Correspondence with Calder, speech from Calder, 'Spiritual Factors in the Recovery of Alcoholism', June 1960, p. 1.

³⁸SAB, Correspondence with Calder, speech from Calder, 'Spiritual Factors in the Recovery of Alcoholism', June 1960, p. 3.

³⁹Smith 1959, p. 293.

⁴⁰SAB, Clinical Files, LSD Trials, 'anonymous'. Patients' names have been removed by the author to maintain confidentiality.

also helped play down psychoanalytical overtones by couching the explanation in overtly experiential terms.

Because of the intensely personal and subjective experiences generated by LSD treatment, classifying and evaluating on the part of patients presented a tremendous challenge. Individuals underwent a trial in the presence of a doctor or nurse who made observations throughout the experiment. Observers then encouraged subjects to write their own report on the experience within a few days. While witnesses to experiments commented on observed behaviour and statements, subjects regularly complained that they had difficulty in describing experiences. The distortion of sensory perceptions and overwhelming, often racing, flows of feelings and ideas frequently left subjects struggling to find words to express what had occurred.

Despite these challenges, patients offered personal statements after the trial that contributed an invaluable perspective. Transcripts and patients' reports from the University Hospital in Saskatoon from 1958 to 1966 contained several examples of patients' experiences, in their own words.⁴¹ In each of the 216 cases, patients completed a consent form, and a nurse attendant attached a transcript that recorded the chronology of events and the times at which empirically observable reactions took place. In a majority of cases, a doctor's report accompanied the trial docket; quite often the patient submitted a description in his or her own writing.⁴² Anonymous excerpts expressed profundity of response. The following description of a subject's spiritual reaction, written (or recorded) the day after treatment needs to be quoted at length adequately to convey the individual's experience:

How can I explain the face, vile, repulsive and scaly, that I took by the hand into the depth of hell from whence it came and then gently removed that scaly thing from the face and took it by the hand up up into the light and saw the face in all its God given beauty, so much beauty that the pot could not hold it, but it could not spill over. It seemed that my head and shoulders and hips down [there] were separated and my stomach was the battleground between good and evil. . . . I finally talked to [the doctor] who seemed to have no trouble understanding the things I was describing to him and yet can not put on paper. It is a living thing I feel and I wish I were an artist and could paint it or put it to music or verse for the world to share. It seems to be a feeling that only someone that has seen the scale of all emotions, through LSD or alcohol can even come close to knowing or believing even in the most fantastic things you try to convey to them. It is a wonderful feeling of the choice to go up or down. I chose to go up and feel clean fresh and good.⁴³

⁴¹Patients' perspectives come from an examination of reports and letters contained in SAB, *Hallucinogens—Patients*.

⁴²Subjects' reports were often handwritten. Some were later typed. Sometimes subjects did not immediately submit a report, but wrote a letter to the presiding psychiatrist weeks or months later. In these cases, the letters were not always transferred to the original file, but appeared in correspondence files. It is therefore difficult to determine the precise number of individuals who offered personal impressions.

⁴³SAB, *Hallucinogens—Patients* 'Subject's Report', anonymous subject report, p. 1.

Smith categorised this particular LSD experience as a classical psychedelic reaction. The patient had a 'spiritual' experience, forcing himself to contend with forces of 'good' and 'evil' and emerged from the episode feeling confident and changed. Although Smith required further information from follow-up studies before ascertaining whether the treatment had been successful, he expected this patient to do well because of his 'spiritual' reaction. Although Smith considered a psychedelic reaction the most effective for attaining sobriety, he also found that most patients reached new levels of self-awareness even without having an overtly 'spiritual' experience. The latter could only be ratified through consultation or after interpreting a patient's report.

Patients' own descriptions of their experiences often revealed insights that were nearly impossible for observers to appreciate. Most observers had taken the drug themselves—meaning that they could 'understand' the effects, but did not necessarily appreciate the ways in which the reaction affected particular behaviour in each individual case. Nurses' reports portrayed the challenge of recording a highly subjective experience when physical reactions did not necessarily match emotional or psychological impressions. Yet psychiatrists instructed nurses to compose reports based on observable changes. Often these reports conflicted with reflections submitted by patients. For example, nurses sometimes documented a patient's withdrawal from a conversation or a marked desire to do nothing and withdraw from the experimental setting. At such times, observers' reports sometimes questioned whether the drug had a major effect.

Thus, patients' reports provided a revealing perspective on the effects of LSD and could substantially enhance evaluation available through conventional means. For example, the patient's report describing the above experience claimed that the period of withdrawal was in fact a moment of intense personal revelation. Another responded to the nurse's prompts to discuss his reasons for seeking therapy and responded: 'I cannot look into the past. Disgusted with myself. I am always scared of something. I want to be something.'⁴⁴ The next day, however, the same patient stated: 'In answer to why I fear people, I found that I fear myself and my ability to do things right. In order to overcome this fear I found I had to look inward to myself to conquer, instead of outside myself.'⁴⁵ He claimed that his arrival at this conclusion occurred during the LSD trial but that he had been unable to express himself until the following day. These kinds of reflections underscored the importance of encouraging patients to provide their own impressions of trials so that psychiatrists could adequately assess the value of the LSD experience. It also suggested a pressing need for follow-up consultation.

A minority of cases in this trial in Saskatoon revealed evidence of an experience that psychiatrists categorised as negative. Hoffer and others reasoned that the low rate of negative reactions was, in large measure, due to the strict screening measures they employed. Despite these precautions, there were negative responses to the drug. One patient described his experience and said, 'there are some worms. They're nodding at me. Am I dying? I must be dying because they're eating my flesh. They're gone now. I can't move. Am I dead?'.⁴⁶ The nurse-observer documented these words during the

⁴⁴SAB, *Hallucinogens—Patients' 'Subject's Report'*, nurse's report, p. 2.

⁴⁵*Ibid.*

⁴⁶SAB, *Hallucinogens—Patients' 'Subject's Report'*, nurse's report, n.p.

trial and because of their terrifying nature, the doctor terminated the reaction by giving the patient a dose of niacin.⁴⁷ Interestingly, this individual later contended that despite the frightening nature of his experiences he had been reassured by the presence of empathetic staff. He remained confident that the drug produced his hallucinations and that the worms and associated feelings existed 'outside' reality.⁴⁸

The variety of LSD reactions observed in hundreds of trials contributed to a growing inventory of data on the experience. Coupled with self-experimentation, the Saskatchewan psychiatric research programme prepared some conclusions on these observations in the early 1960s. One of the fundamental findings on psychedelic drugs illustrated that they had the capacity to produce a 'transcendental feeling of being united with the world'.⁴⁹ The trials highlighted the importance of using LSD to cultivate a mind-manifesting experience that led to personal insight, transcendence, or 'spiritual' enlightenment. Furthermore, while the drug triggered the reaction, the experience itself was believed to yield the therapeutic benefits.

While public support for the treatment continued to grow in Saskatchewan, theories underpinning psychedelic therapy came under attack from members of the medical community unwilling to support a methodological approach that mixed medical and socio-psychological, even 'spiritual', models of addiction. Elsewhere, medical researchers raised questions about the use of selection criteria, with some suspecting that alcoholism could not be treated with any chemical substance at all, and, others still, challenging the Saskatchewan group to repeat their results using a variety of controlled trials.

The leading organisation for drug and alcohol research in Canada, the Addictions Research Foundation (ARF) in Toronto, weighed into the debates with its own set of LSD studies. In a series of publications in the *Quarterly Journal for Studies on Alcohol*, ARF researchers Reginald Smart and Thomas Storm criticised the Saskatchewan LSD treatments for their lack of proper scientific methodology. The ARF contended that the results presented misleading conclusions because investigators had not employed appropriate controls isolating the reaction of the drug from other influences. In particular, their criticism focused on blatant disregard for environmental influences that could have affected the capacity to produce an objective assessment of the drug's effects. According to Smart and Storm, reports claiming that LSD helped alcoholics overcome their problem drinking presented misinformation about the efficacy of the drug. Until medical researchers conducted trials that controlled for environmental influences and isolated the reaction of the drug itself, the ARF recommended the discontinuation of publications endorsing psychedelic treatment.

In 1962, psychiatrist Sven Jensen, working in Weyburn, Saskatchewan, accepted this challenge and published the first controlled trial on LSD treatment for alcoholism. Jensen relied on three pools of subjects for treatment: one group of alcoholics took LSD at the end of a hospital stay (usually lasting a few weeks); the second received group therapy; and Jensen's colleagues at Weyburn treated the third group with their

⁴⁷Analogous biochemical research suggested that niacin terminates the LSD reaction because it slows adrenalin production. The method itself was recommended in Blewett and Chwelos 1959, ch. 7.

⁴⁸SAB, Hallucinogens—Patients 'Subject's Report', subject's report, n.p.

⁴⁹SAB, Gustav R. Schmiede, 'The Current Status of LSD as a Therapeutic Tool', (unpublished), p. 5.

own standard approaches, excluding psychedelic therapy.⁵⁰ In his two-year study, involving follow-up periods of 6 to 18 months, The results of the study demonstrated that 38 of the 58 patients given LSD remained abstinent throughout the follow-up period. These numbers conveyed greater significance when compared with the second group. Among those patients receiving nothing other than group therapy, only 7 of the 38 involved in the trial remained abstinent. Even those figures, however, showed greater promise than the results from the group treated by Jensen's colleagues by other means; in this group only 4 out of 35 patients stopped drinking.⁵¹

Jensen published his study in the *Quarterly Journal for Studies on Alcohol*, and defined the control mechanism in terms of the comparative component of the trial. He maintained that this exercise underscored the superiority of LSD treatment over the other two methods. Moreover, this kind of controlled trial did not attempt to isolate the reaction of the drug; a situation that empathetic researchers recognised increased feelings of fear and paranoia in subjects while decreasing the probability of a beneficial psychedelic reaction. Jensen's comparative study allowed observers to retain the emphasis on monitoring complex subjective experiences rather than empirically observable reactions.

The ARF countered with its own trials. Researchers Reginald Smart, Thomas Storm, William Baker and Lionel Solursh designed an experimental environment that isolated the effects of the drug before analysing its efficacy. They administered LSD to subjects and subsequently blindfolded them and/or employed physical restraints to restrict movement. They instructed observers not to interact with the subject, creating a research design aimed to minimise the influence of all factors except the drug itself. This approach sought more adequately to ascertain whether the drug offered genuine benefits, or whether the perceived advantages merely inspired clinical enthusiasm that corrupted the real outcome. Subjects used in the ARF study showed some improvement, but, overall, the results from this study demonstrated that LSD did not produce results analogous to those claimed by the Saskatchewan group.⁵² Conclusions from the ARF trial indicated the ineffectiveness of LSD when measured under controlled circumstances. Given the authority vested in this form of methodology, the ARF study represented damaging criticism.

The psychedelic investigators in Saskatchewan responded by arguing that the research design itself functioned as a contributing factor to the poor results accumulated by the ARF. The controls applied in the latter study, they argued, facilitated more frightening reactions in patients by reducing the comfort level and raising apprehensions about the trial. Their own personal and clinical experience with the drug strongly indicated

⁵⁰Jensen 1962, p. 4. Earlier attempts to measure the efficacy of LSD treatment in blind trials were abandoned after determining that reactions to the drug were too powerful to go undetected. Group therapy involved regular psychotherapy sessions in a group setting; the other methods involved one-on-one psychotherapy with psychiatrists, and milieu therapy, which involved in-patient treatment and a combination of one-on-one psychotherapy sessions with one of Jensen's colleagues, in combination with hospitalisation.

⁵¹Jensen 1962, p. 5.

⁵²Smart *et al.* 1967, pp. 351–3; Smart *et al.* (eds) 1966, pp. 469–82; Kurland *et al.* 1970, pp. 83–94. The latter authors describe the method used by Smart *et al.* as part of their attempt to isolate the drug reaction.

that environment had a significant effect on results. While they disagreed over which influence had the more significant effect—environment or drug—they insisted that both demanded consideration. By placing controls on this important influence, according to Hoffer and Osmond, the ARF study failed to investigate the subject's experience but merely measured the existence of a reaction, which did not provide useful information either to observer or subject.

A number of clinical studies from outside Canada supported the Saskatchewan group's fundamental contention that the psychedelic treatment pointed clinicians towards a more sophisticated understanding of alcoholism and its treatment. A Danish study published in 1962 argued that the effects of LSD produced fear and anxiety in patients, which scared them into sobriety.⁵³ This article did not support the biochemical perspective; in fact it recommended expending additional research energy on investigating the psychological and 'spiritual' characteristics of mental illnesses. In 1966, a Czechoslovakian study reported 'good' results with LSD treatment for personality disorders.⁵⁴ Although these publications did not directly confirm Jensen's statistics, they continued to reinforce the importance of exploring the kinds of reactions elicited by psychedelic approaches.

By the end of the decade, supporters of these therapies attempted to construct controlled experiments that would satisfy the growing professional commitment to controlled-trial methodology.⁵⁵ On-going debate in medical journals underlined the necessity of evaluating subjective reactions in drug experiments. Rather than regard the psychedelic approach as unscientific, such articles insisted that a more nuanced evaluation of the effects of drugs deserved attention from the medical profession.

Conclusions

Despite a growing range of perspectives supporting the extension of medical discourse into the subjective realm of experience, the contemporary explosion of pharmaceutical treatments increasingly relied on objective measures as a mark of modern medico-scientific methodology. LSD emerged at the same time as the discovery and synthesis of many of these chemical substances, but psychedelic drugs engaged clinical investigators in methodological debates about the authority of the controlled trial. As psychedelic practitioners continued to emphasise a philosophical agenda, their approach moved closer to the edge of mainstream clinical research. Meanwhile, other psychopharmacological substances, such as anti-psychotic and anti-depressant medications, assumed a more typical image of psychopharmacological efficacy. In contrast to LSD, these drugs flourished in controlled trials in which they repeatedly demonstrated their capacity to reduce symptoms. Success, however, also represented the triumph of a particular methodological approach that solidified specific standards for empiricism in psychiatric discourse.

Psychedelic psychiatrists felt that conventional drug treatments, which required extended periods of compliance, did not address issues of personal control but created

⁵³Hertz 1962, pp. 103–8.

⁵⁴Hausner and Doležal 1966, pp. 87–95.

⁵⁵Hollister, Shelton and Krieger 1969, pp. 58–63; Denson and Sydiaha 1970, pp. 443–5.

another kind of dependence. LSD treatment, by contrast, offered one intense therapy session that promised to restore control to the patient. Hoffer and Osmond reasoned that this approach demonstrated confidence in the biochemical model, but their endorsement of this method also implied a desire for further consideration of the culmination of non-medical factors in therapy. The intensity of the single experience approach appealed to patients as an appropriate method for treating a predominantly male disease, a disease that allegedly developed out of an unhealthy obsession with displaying machismo. The restoration of self-control generated by LSD treatment increased optimism that alcoholism would not irreparably damage communities and families.

Although by the mid-1960s, LSD, or 'acid', had gained popular recognition as a street drug, and one that would later become synonymous with the counter-culture of that decade, in Saskatchewan in the 1950s it played a prominent role in reconstructing alcoholism as a disease. The growing public perception of drunkenness as a physiological condition reinforced the need for medical attention and, moreover, redefined problem drinking behaviour as something that could be cured. LSD treatment not only supported medical models of alcoholism but also had a strong appeal for policy-makers, Alcoholics Anonymous and the lay public to recognise alcoholism as a condition with cultural and medical implications for identification and treatment.

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