Psychotherapy with the aid of LSD

JØRGEN DUE MADSEN, ASLE HOFFART

Madsen JD, Hoffart A. Psychotherapy with the aid of LSD. Nord J Psychiatry 1996;50:477–486. Oslo. ISSN 0803–9488.

Psychotherapeutic treatment with hallucinogens, usually called psycholytic treatment, was used at Modum Bads Nervesanatorium (MBN) on inpatients from 1961 to 1976. The hallucinogens used were LSD, psilocybin, and CZ 74. The indications and the treatment procedure at MBN are described. From 1961 to 1976, 379 patients received 2205 psycholytic treatments, mostly with LSD. From 1970 to 1976, only nine patients had their first hospitalization with psycholytic treatment. Sociodemographic data, diagnoses, length of hospitalizations, and number and kind of treatments were registered. Of the treated patients, 40% were women and 60% were men. The diagnostic distribution (ICD 7) was psychoses, 4.5%; obsessive neurosis, 11.1%; other psychoneuroses, 26.3%; sexual deviation, 6.3%; other disorders of character, 46.2%; alcoholism, 5.0%; and drug addiction, 0.5%. In 1961 it was especially obsessive neurosis (35.7%) that was treated, and in the last 7 years it was again the same diagnosis (75.6%). The mean length of hospitalization for the psycholytically treated patients was 132 days, nearly double the average of 68 days for all hospitalized patients at MBN.

☐ *Hallucinogens, Inpatients, LSD, Psycholytic treatment, Psychotherapy.*

Jørgen Due Madsen M.D. Department of psychiatry S. Hillerød Hospital DK-3400 Hillerød, Denmark; Accepted: 11 September 1996.

D-Lysergic acid diethylamide-25 (LSD) was synthesized by Stoll and Hofmann in the Sandoz laboratories in 1938, and in 1943 Hofmann (1) noted its psychologic effects: 1) experience of illusions, pseudohallucinations, and hallucinations; 2) full consciousness; 3) feelings of dimension both in time and space are flexible; 4) old experiences can be re-experienced; 5) the possibility of introspection is increased; 6) affects are more accessible; and 7) communication with others can take place.

In 1950 Busch & Johnson (2) presented the first results of LSD as a psychotherapeutic aid. In the following years, LSD and similar hallucinogens or psycholytics, as they were called in a psychotherapeutic context, were increasingly used in many psychiatric centres in Europe and the USA in the treatment of patients, especially with heavily disabling neuroses. In the late 1950s, 1960s, and the beginning of the 1970s many publications were produced on their therapeutic effects (3). From the beginning it brought hope of help to patient groups that had tried many other treatments without result. In the meantime, some unfortunate treatment cases were reported, and the use of hallucinogens in the social abuse culture in connection with the youth revolution evolved. This caused the therapeutic use of psycholytics to stop to a greater or lesser extent by the end of the sixties.

Among the centres in Europe was Powick Hospital in England, where Sandison and Spencer treated many patients with LSD and presented pioneering articles (1, 4). Hanscarl Leuner from Göttingen University Clinic in Germany produced comprehensive research and treatment over many years (5).

In Scandinavia the University Clinic in Lund had started LSD treatment already in 1957 (6), and Frederiksberg Psychiatric Department in Copenhagen began in 1960 (7). Thereafter followed, among others, Lier Hospital (8) and Modum Bads Nervesanatorium (MBN) in Norway in 1961. Several articles with interim results were produced at the Scandinavian centres (7). Robak published a report on the first 24 patients at MBN (9). Gordon Johnsen, who was the chief consultant at MBN from 1957 to 1976, has also contributed to textbooks (10,11) and has given many lectures on the subject which have been published (12, 13, 14). One cannot find a collection of all patient material from any of the Scandinavian centres from this period of the history of psychiatry.

The present study covers indications for psycholytic therapy, treatment procedures, and a

collection of patient material from MBN that received psycholytic treatment.

Subjects and methods

MBN is a hospital with a psychotherapeutic treatment profile, admitting patients from the whole country. Most patients have a diagnosis of neurosis, depression, or personality disorder.

The psycholytic treatment in the institution is described in some detail in MBN's annual reports from 1961–65, from 1968–70, and in 1972 and 1975. From the beginning of psycholytic treatment in 1961 and to the end of 1976, every annual report has in the statistical section (with the exception of 1961 and 1969) reported how many psycholytic treatments were given. Also reported (with the exception of 1962 and 1973–76) is the number of patients who received psycholytic treatment each year.

In MBN's archives there are unpublished lectures given at psychotherapeutic seminars and congresses by Gordon Johnsen and other psychotherapists from the institution. Also found in the archives is correspondence with international research workers and educational material for patients who were candidates for psycholytic treatment. Therapists and associated colleagues who worked with psycholytic therapy at MBN are used as sources of information.

To find all the psycholytically treated patients, all the patient files in the archives from 1961 until the present were examined. From 1961 to 1969 it was routine to mark the front page of the patient files with the number of psycholytic treatments.

The following information was registered from the front page of the patient file: sex, year of birth, marital status, and occupation. For each hospitalization the year, the length of the hospitalization, the diagnosis, the secondary diagnosis, and, if administered at that hospitalization, the number of psycholytic treatments were registered. The psycholytic treatment could include LSD alone or in combination with the shorter-working hallucinogens psilocybin or CZ 74 (10), or these could be given alone or in combination with each other. The number of these different treatments was registered for each hospitalization.

Most patients were diagnosed on the basis of ICD 7 (15) (300 patients). ICD 7 was used at MBN from 1963 to 1968. Before 1963 patients were diagnosed without code numbers (58 patients), and after 1968 the ICD 8 (16) was used (21 patients). Since the number of patients who received psycholytic treatment before 1963 and after 1968 was relatively small, they were rediagnosed using ICD 7. For the 58 patients before 1963, the diagnosis could easily fit into ICD 7, just adding the code number. Most of the 21 patients after 1968 had a diagnosis of obsessive neurosis, code number 300.3 in ICD 8, which corresponded to 3130 in ICD 7. Disorder of character is a less specified diagnosis in ICD 8 than in ICD 7. The patients with this diagnosis were therefore placed in ICD 7 in code number 3207 as unspecified.

On the front page the secondary diagnosis was shown in brackets after the main diagnosis. Alcoholism, obsessive tendencies, and sexual deviations could contribute to the indication for psycholytic treatment (14). We have therefore fit the secondary diagnoses into the categories alcoholism, obsessive tendencies, sexual deviations, and others.

The contents of the patient files have not been systematically analysed in this study but have been thoroughly examined with regard to parts dealing with psycholytic treatment so as to shed light on the indications and procedures and to check the validity of the information on the notes' cover.

Indications

At MBN indications for psycholytic treatment in the first years were mainly obsessive neurosis, disorders of character, sexual deviation, and alcoholism. The patients were most often handicapped, had had their illness for several years, and had tried most of the current psychiatric forms of treatment without improvement. The therapists were cautious with ego-weak patients and patients with a marked history of hysteria. Suicidal tendencies were a clear contraindication (9). Indications for psycholytic treatment at MBN were as follows (13, 14):

1. As an exploratory, diagnostic aid. One and sometimes two treatments were given. In addition to clinical evaluation and the Rorschach test, psycholytic treatment could contribute to

the clarification of whether the therapists should aim at insight-oriented psychotherapy or other treatment. In patients with possible onset of affective psychosis, one explorative treatment could contribute to the future treatment strategy. For example, when a depressed patient receiving psycholytic treatment experienced emptiness and darkness, this would indicate more somatic treatment forms and supportive therapy, but an experience of conflicts and psychogenic mechanisms would point in the direction of psychotherapy with deep dynamic insight.

2. As an aid and as support during intensive psychotherapy. The psycholytic treatment aided the activation of unconscious material, increased regression, reduced resistance, and strengthened the transference situation. This made it possible for the patient to experience a stronger emotional insight into the areas of conflict. It was seen as a therapeutic aid, not least for patients with disorders of character and obsessive neurosis, who were often emotionally impeded and used rationalizing extensively as a defence. This was the most important indication.
3. As a last treatment after a long course of analytical psychotherapy with dream analysis. One or two psycholytic treatments were given to underline and integrate the emotional experience and insight the patient had obtained in psychotherapy.
4. As a means to attain existential shifts in patients with alcoholism, addiction, and psychopathic tendencies. These patients were often poorly motivated, had tried many other treatments, and had been admitted because of outside social pressures. They received only 1–2 psycholytic treatments. During these treatments this patient type nearly always had a transcendental cosmic experience. This was strengthened by the administration of higher dosages. The stronger experience was one of beauty and colour, possibly mixed with existential confrontations of earlier lost life opportunities, implementing in some of these patients a completely new motivation for treatment, which was used in the further proposals. It was observed that the cosmic experience type was characteristic for the above-mentioned patients. On the other hand, it seemed that patients with obsessive neurosis predominantly had regressive experiences (11).

Procedure

At MBN psycholytic treatment has only been given during inpatient status, and outpatient treatments were warned against (17).

Before a staff meeting could decide whether a patient would be offered psycholytic treatment, there were some weeks of observation, with a clinical assessment. The Rorschach test was routinely carried out with attention to indication of ego strength (9). Great emphasis was placed on the fact that there had to be a good patient–therapist relationship with a positive transference, and the patient should have carried out at least 10–20 h of psychotherapy (13). The psycholytic treatments were voluntary, and motivation for treatment was very important. The patient had to be willing to reveal the experiences that emerged during treatment and let them be subjected to psychotherapeutic work.

Before the patient received psycholytic treatment they were informed about how the treatment would be arranged in practice, which reaction they could expect both physically and psychologically, and that they would have their therapist and other personnel present during the treatment. From about 1965 the patients also received detailed written patient information that underlined the verbal information.

On the day of treatment the patient received LSD at approximately 0800 h, as drops, tablets, or by injection. Dosage was ordinarily 25–100 μg, sometimes up to 200 μg, and rarely more than 300 μg. For psilocybin the dosage was 10–30 mg, and for CZ 74, 10–20 mg.

Before or, most often, after the administration of the psycholytic, the patient received breakfast. The patient was in a single room, which was screened from noise and light, and the patient was ordinarily in bed during the treatment. The patient could have a cup of coffee or smoke, if he or she wished. During the approximately 6-h-long treatment, two members of the staff were constantly available: the therapist and a nurse. They could both or individually stay with the patient during this period, or the patient could wish to be alone in the room but have the option to call for the nurse or the therapist as required. As the therapist had responsibility for the treatment, he/she could not start on other tasks that could not immediately be put aside, in the treatment period. Stimulation with music, light, or the

like was omitted, enabling the patients to have the experiences that emerged from their inner problems and progress in the treatment. The patients were asked to write down their experiences during or after treatment, some using a tape recorder.

The patient's experiences in the psycholytic treatment waned at about 1300–1400 h, and often a barbiturate or chlorpromazine was given to end the treatment. These drugs could always be used to stop the treatment at an earlier point if the patient so wished.

After treatment the patient ate dinner and rested for a couple of hours. After this the therapist routinely spent an hour with the patient that day and again the day after, during which the experiences were examined and placed in relation to the treatment process.

In the 1st year the patients received psycholytic treatment once a week. After a while, more weeks were allowed between treatments, and it was emphasized that there should be a time interval to arrange the psychologic material that had been produced as a result of the psycholytic treatment (9). The number of psychotherapy hours was ordinarily 2–5 a week. In addition to individual therapy the patients took part in other therapy, group therapy, work therapy, phobia training, or the like.

Inspired by Leuner's procedure (18), the therapists tried once, in the autumn of 1961, to set up a group of patients, who had received LSD earlier on the same day. Five patients met for 2-h group discussions together with their therapist. The patients reported their experiences during treatment, and subjects were discussed and worked out (9). This procedure was soon abandoned, partly because the therapists were uncertain whether the patients sometimes were too open and could regret it later, and partly because the procedure was enormously time-consuming. Therefore, treatment was only continued in the individual setting.

Results

From 1961 to 1976, 379 patients received psycholytic treatment at MBN; however from 1970 to 1976 only 9 patients had their first hospitalization with psycholytic treatment.

Distribution of the sexes was 152 women (40.1%) and 227 men (59.9%). One hundred and sixty-two were unmarried (42.7%), 202 were married (53.3%), 13 were divorced (3.4%), and 2 were widows (0.5%).

The occupations of the 379 patients were academic/high officials (14.8%), large independent businessmen (3.2%), high-level white collar workers (26.4%), low-level white collar workers (16.9%), small independent businessmen (3.7%), skilled workers (5.5%), unskilled workers (4.2%), retired (1.6%), students (10.3%), and housewives (13.5%). This is not different from other patients in the hospital.

Average age for the 379 patients at first hospitalization was 36.2 years (SD, 9.5 years; range, 16–62 years). One hundred and three patients had two hospitalizations with psycholytic treatment; their mean age at second hospitalization was 36.7 years (SD, 9.2 years; range, 18–59 years). Forty patients had three hospitalizations with psycholytic treatment; their mean age at third hospitalization was 38.8 years (SD, 8.1 years; range 23–60 years). Twenty patients had four or more hospitalizations with psycholytic treatment; their mean age at the last hospitalization was 41.1 years (SD, 9.3 years; range, 24–61 years). Three patients had 8 hospitalizations, and 1 patient had 13 hospitalizations with psycholytic treatment.

Two hundred and sixty-six patients (70.2%) received psycholytic treatment at their 1st hospitalization; 66 patients (17.4%) had had 1 previous hospitalization at MBN without this treatment, whereas 29 patients (7.7%) had had 2 previous hospitalizations without psycholytic treatment, and 18 patients (4.9%) had had 3 or more previous hospitalizations.

Two hundred and four patients (53.8%) had no hospitalization at MBN after psycholytic treatment. Eighty-three patients (21.9%) had 1, 35 patients (9.2%) had 2, 20 patients (5.3%) had 3, and 37 patients (9.8%) had 4 or more hospitalizations after psycholytic treatment.

The average duration of the first hospitalization with psycholytic treatment was 132.3 days (SD, 79.0 days; range, 10–431 days), at the second hospitalization 84.3 days (SD, 88.3 days; range, 6–726 days), and at the third hospitalization 55.1 days (SD, 48.8 days; range, 4–233 days). For the 20 patients who had four or more hospitalizations with psycholytic treatment, the duration of the last hospitalization was 30.5 days (SD, 26.2; range, 4–96 days).

Table 1. Distribution of diagnoses (ICD 7) and secondary diagnoses of the 379 patients at first hospitalization with psycholytic treatment at MBN.

		Sec. diagnosis			
	Total	Alc.	Obs.	Sex	Oth.
Psychoses					
3000 Schizophrenic disorder, simple type	1				1
3006 Schizoaffective psychosis	7				7
3010 Manic-depressive reaction, manic and circular	1				1
3011 Manic-depressive reaction, depressive	6	1			5
3030 Paranoia and paranoid states	2				2
Total	17				
Psychoneurotic disorders					
3100 Anxiety reaction without somatic symptoms	28	2	1		25
3110 Hysterical reaction without anxiety reaction	24		2	1	21
3120 Phobic reaction	3		1		2
3130 Obsessive-compulsive reaction	42	1			41
3140 Neurotic-depressive reaction	29	4	1		24
3150 Psychoneurosis with somatic symptoms affecting circulatory system	3			1	2
3171 Psychoneurosis with somatic symptoms affecting genitourinary system	2				2
3172 Psychoneurosis with somatic symptoms, pruritus of psychogenetic origin	2				2
3174 Psychoneurosis with somatic symptoms affecting musculoskeletal system	7				7
3183 Astenic reaction	2				2
Total	142				
Disorders of character and behaviour					
3200 Pathological personality, schizoid	2	1			1
3206 Pathological personality, sexual deviation	24	4	2	5	13
3207 Pathological personality NOS	172	35	15	22	100
3215 Immature personality NOS	1				1
Total	199				
Alcoholism/Drug addiction					
3222 Alcoholism NOS	19				19
3230 Other drug addiction	2		1		1
Total	21				
Sum	379	48	23	29	279

Diagnoses and secondary diagnoses are distributed as shown in Table 1.

Table 1 shows that 4.5% received a diagnosis of psychosis; 11.1%, obsessive neurosis; 26.3%, other psychoneurosis; 6.3%, sexual deviation; 46.2%, other disorders of character; 5.0%, alcoholism; and 0.5%, drug addiction.

There were 12.7% with alcohol abuse as a secondary diagnosis; 6.1% had obsessive tendencies, 7.7% had sexual deviation, and 73.6% had other or no secondary diagnosis.

The 379 patients had altogether 579 hospitalizations. Table 2 shows these hospitalizations distributed by year and diagnosis.

Table 2. Distribution of year and diagnosis of the 579 hospitalizations (379 patients) for which psycholytic treatment was given. Percentage of psycholytically treated patients across diagnoses given in parentheses.

		Psychoneurosis		Disorders of character				
Year	Psychosis	Obsessive-neurosis	Other psychoneurosis	Sexual-deviation	Other disorders of charact.	Abuse: Alcohol	Abuse: Drug	Total
1961	–	5 (35.7)	2 (14.3)	1 (7.1)	6 (42.9)	–	–	14
1962	2 (4.1)	6 (12.3)	9 (18.4)	3 (6.1)	28 (57.1)	2 (2.0)	–	49
1963	7 (9.3)	3 (4.0)	33 (44.0)	6 (8.0)	23 (30.7)	3 (4.0)	–	75
1964	6 (5.9)	7 (6.9)	25 (24.8)	9 (8.9)	48 (47.5)	4 (4.0)	2 (2.0)	101
1965	2 (1.8)	12 (10.6)	33 (29.2)	3 (2.7)	55 (48.7)	8 (7.1)	–	113
1966	3 (3.9)	14 (18.4)	10 (13.2)	6 (7.9)	41 (53.9)	2 (2.6)	–	76
1967	1 (1.9)	8 (15.4)	11 (21.2)	6 (11.5)	23 (44.2)	3 (5.8)	–	52
1968	1 (3.7)	8 (29.6)	4 (14.8)	3 (11.1)	10 (37.0)	1 (3.7)	–	27
1969	–	5 (19.2)	6 (23.1)	–	15 (57.7)	–	–	26
1970	–	8 (61.5)	2 (15.4)	–	3 (23.1)	–	–	13
1971	–	17 (89.5)	2 (10.5)	–	–	–	–	19
1972	–	5 (100)	–	–	–	–	–	5
1973	–	2 (100)	–	–	–	–	–	2
1974	–	1 (33.3)	–	–	2 (66.7)	–	–	3
1975	1 (50)	–	–	–	1 (50)	–	–	2
1976	–	1 (50)	–	–	1 (50)	–	–	2
Sum	23 (4.0)	102 (17.6)	137 (23.7)	37 (6.4)	256 (44.2)	22 (3.8)	2 (0.3)	579

Inpatient duration in days at first hospitalization with psycholytic treatment was for psychoses, 164.1 (SD, 63.5; range, 70–300); obsessive neurosis, 158.7 (SD, 89.7; range, 27–419); other psychoneuroses, 133.9 (SD, 80.3; range, 10–43); sexual deviation, 117.7 (SD, 59.9; range, 13–236); other disorders of character, 131.3 (SD, 79.0; range, 10–413); alcoholism/drug, 72.2 (SD, 35.8; range, 12–156).

Distribution of the sexes across diagnoses for the 379 patients at the first hospitalization was as follows: psychosis, 8 women and 9 men; obses-

Table 3. Distribution of year, type, and number of psycholytic treatments and the mean number of treatments per hospitalization at MBN.

Year	LSD	Psilo-cybin	CZ 74	LSD + psilo-cybin	LSD + CZ 74	LSD + psilo-cybin + CZ 74	Psilo-cybin + CZ 74	Total	No. of treat. per hosp.
61	212	–	–	–	–	–	–	212	15.1
62	394	–	–	–	–	–	–	394	8.1
63	338	27	–	–	–	–	–	365	4.9
64	289	46	7	7	8	–	2	359	3.5
65	232	46	6	44	24	1	2	355	3.2
66	117	41	–	34	1	–	1	194	2.5
67	36	47	1	8	4	–	6	102	2.0
68	9	43	–	28	–	–	2	82	3.0
69	28	7	–	7	3	–	–	45	1.4
70	4	10	2	16	–	–	–	32	2.3
71	–	15	6	14	1	–	1	37	2.0
72	–	–	6	–	2	–	–	8	1.6
73	–	1	1	–	–	–	1	3	1.5
74	3	4	–	1	–	–	–	8	2.7
75	3	2	–	–	–	–	–	5	2.5
76	3	–	–	1	–	–	–	4	2.0
Sum	1668	289	29	160	43	1	15	2205	3.8

sive neurosis, 27 women and 15 men; other psychoneuroses, 52 women and 48 men; sexual deviation, 1 woman and 23 men; other disorders of character, 59 women and 116 men; alcoholism, 4 women and 15 men; and drug addiction, 1 woman and 1 man.

The number of treatments, the type of treatment given, and the mean number of treatments

Table 4. Number of patients distributed across diagnoses in relation to 1) whether they had received 1–2 or 3 or more psycholytic treatments, and 2) the total number of treatments in each diagnostic category as percentage of the total number of psycholytic treatments at MBN.

	No. of treatments		Percentage of total no. of treatments
	1–2	3≤	
Psychosis	12	5	2.5
Obsessive neurosis	14	28	22.1
Other psychoneurosis	41	59	22.2
Sexual deviation	11	13	6.4
Other disorders of character	82	93	44.3
Alcoholism/drug	15	6	2.4
Sum	175	204	

per hospitalization over the years are shown in Table 3.

The total number of treatments given was 2205. The most predominantly used treatment was LSD alone (1668 times; 75.6%) or in combination (235 times; 10.6%). The average number of treatments per hospitalization shows a falling tendency over the years, altogether with a mean number of 3.8 (range, 1–48).

On average, patients received 5.8 treatments (range, 1–74). Women received 1001 treatments (mean, 6.6; range, 1–74). Men received 1204 treatments (mean, 5.3; range, 1–43).

The average number of psycholytic treatments at first hospitalization in accordance with diagnosis was, for psychoses, 2.8 (range, 1–12); obsessive neurosis, 7.0 (range, 1–48); other psychoneuroses, 3.8 (range, 1–15); sexual deviation, 4.8 (range, 1–20); other disorders of character, 4.5 (range, 1–40); alcoholism, 2.3 (range, 1–6); and drug addiction, 4.0 (range, 2–6).

In Table 4 the number of patients distributed across diagnoses is shown in relation to 1) whether they have received 1–2 or 3 and more psycholytic treatments, and 2) the total number of treatments in each diagnostic category as percentage of the total number of psycholytic treatments.

Discussion

An examination of the archives at MBN resulted in the identification of 379 psycholytically treated patients during the period from 1961 to 1976. The total number of psycholytic treatments stated in the annual reports is 2059, as opposed to 2205 identified in this study. If the number of patients mentioned in the annual reports is summed up, the total number of hospitalizations with psycholytic treatment is obtained, not the total number of patients. The number of patients is smaller, since many patients were given psycholytic treatment at several hospitalizations. The total number of hospitalizations cited in the annual reports is 490, as opposed to the 579 found in this study. As mentioned, the annual reports are not quite uniform in their statements, since these in occasional years lack either the number of treatments or the number of hospitalizations. But since this study has found a larger number for both, the 379 patients found is estimated to be very close to the correct number. In the Nordic countries this number is probably surpassed only by Frederiksberg Hospital in Denmark, which has not added up its entire material.

Seventy per cent of the patients were psycholytically treated at their first hospitalization at MBN. Factors that might contribute to this large number are that many of MBN's patients had attempted treatment at other institutions for several years (9) and that MBN as a psychiatric institution was only 3½ years old when psycholytic treatment was commenced.

Of the psycholytically treated patients, 54% were never readmitted to MBN, probably because of improvement, since 63% of the patients in the follow-up study reported that the psycholytic treatment had helped, and 38% stated that they were well (19).

The duration of the first hospitalization for the psycholytically treated was 132 days on average, and none had stayed for less than 10 days. For comparison, the average length of stay for all of the patients at MBN in the years 1962–67 was, according to the annual reports, 68 days. The time span of 1962–67 was chosen for comparison because MBN opened a family section in 1968, which influenced the statistics, and because psycholytic therapy was at its maximum in this time span. Since those who were treated with psycholytics stayed almost double the time, there are grounds for assuming both that psycholytic therapy was used for difficult cases and that psycholytic therapy in itself required longer observation and treatment time (9). If one looks at the length of stay across diagnoses, it can be seen that the 17 psycholytically treated patients with a diagnosis of psychosis had a length of stay of 164 days, the 42 with obsessive neurosis stayed for 158 days, whereas at the other end the 21 with a diagnosis of addiction had the shortest length of stay at 72 days. The duration of stay also reflects different types of indications and experiences, in which working with emerging inner conflicts in depressions or obsessive neurosis took longer time than the more cosmic experiences of the alcoholics.

The sex distribution of 40% women and 60% men is noteworthy inasmuch as all of the hospitalizations of MBN during the years 1962–67 had a sex distribution of 55% women and 45% men.

Contributing to this overrepresentation of men who have been given psycholytic therapy is the

diagnosis of sexual deviation (1 woman and 23 men) and alcoholism (4 women and 15 men), which is not surprising, considering that sexual deviation at that time probably was perceived more often among men, and the sex distribution of alcoholism is as expected.

Nevertheless, it is the category of other disorders of character (59 women and 116 men) that is decisive. Unfortunately, the distribution of the diagnoses by sex was not recorded at MBN at that time, so a comparison with the total patient material given a diagnosis of other disorders of character at MBN is not possible. In available material from comparable institutions in Scandinavia at that time the sex distribution of patients with a diagnosis of other disorders of character was nearly 50% men and 50% women (20).

The background for the skewed sex distribution of psycholytically treated disorders of character is possibly to be found partly in the fact that most indication-giving secondary diagnoses are found here. Most of these patients with a secondary diagnosis of alcohol and sexual deviation were men. One could perhaps also find the background for the overrepresentation of men among those who fulfilled another indication for psycholytic treatment, namely the emotional illiterates, the rationalizing intellectuals, and the silent, tense, inhibited patients (13)?

If one considers the psycholytically treated obsessive neuroses, 27 women (64%) and 15 men (36%) have been treated over the years, and this looks as if it matches the hospitalized sex distribution of that diagnosis from that time in psychiatric institutions (20).

The obsessive neuroses constituted 11.1% of the number of patients with psycholytic treatment. Nevertheless, the obsessive neuroses received 22.1% of the psycholytic treatment. Compared with their number, all other diagnoses received either the same or a smaller percentage of the treatment. This was especially evident for psychoses, with 4.5% of the total number and 2.5% of the treatment, and alcoholism, with 5.0% of the total number and 2.0% of the treatment.

Most psychosis patients and addiction patients were given 1–2 treatments, whereas all other diagnostic groups, and especially that of obsessive neurosis, have more patients who have been given more than two treatments (Table 4). This supports the indication of giving very few treatments when the aim was diagnostic, when the aim was to evaluate psychotherapeutic accessibility, or when alcoholism was treated.

One must marvel that 17 patients with a diagnosis of psychosis were given psycholytic treatment, as the therapists were very reluctant to give this treatment to ego-weak patients (9). Perhaps the background for some is an uncertain or initially wrong diagnostic evaluation? Moreover, 14 of the 17 psychosis patients had an affective diagnosis, for which it was possibly desirable to estimate the indications for long-term psychotherapy.

Psycholytic treatment was begun enthusiastically at MBN with hopes of improvement for groups of patients who were difficult to treat and who had undergone much treatment previously (9). As can be seen in Table 2, these consisted quite predominantly of obsessive neurosis (35.7%) and disorders of character (50.0%) in 1961. During the first half of the sixties psycholytic therapy was also tried for a broader diagnostic range, including psychosis and alcoholism, after which the diagnosis indication at the end of the sixties was again narrowed to obsessive neurosis and other disorders of character, and during the last 7 years of psycholytic treatment at MBN, 75.6% of the hospitalizations with psycholytic treatment was for obsessive neurosis. From the beginning, the patients received on average 15.1 treatments per hospitalization, but this number very quickly decreased to fewer than 3 treatments per hospitalization after 1965.

There is no doubt that psycholytic therapy has been very resource-demanding, both for patients and staff, with hospitalizations of long duration and much attention.

With regard to obsessive neurosis, a more systematic behaviour-therapeutic programme, sometimes in combination with medication, has replaced the psycholytic treatment. The growing uncertainty about the psycholytic treatment also contributed to the ending of its use.

In judging a treatment from the past, it is always easy to find critical points, especially with the standards of evaluation and ethics of our days. MBN was from the beginning aware of the psychic forces that were loosened with psycholytics. Therefore treatment was given only to inpatients and in a psychotherapeutic context. This was in contrast to Frederiksberg Hospital, where outpatients were also treated, and where

some patients received hallucinogens without psychotherapy (7, 21).

Nevertheless, some of the main weaknesses of the psycholytic treatment at MBN can be listed: a) Many patients were quickly introduced to a new and very potent treatment without sufficient research, especially with regard to long-term effects, such as the possibility of habituation and flashbacks. b) The indications were from the beginning very broad, with inclusion of patients with a diagnosis of psychosis, alcoholism, or drug abuse. More direct and close research would have been more appropriate. c) During the late sixties there were in the literature some indications to assume that LSD could damage the chromosomes (22). This was disproved in 1971 (23). As can be seen in Table 3, psilocybin was used relatively more often than LSD in the period from 1967 to 1971. It would have shown a better therapeutic standard to stop using LSD in this period.

As to the further course of the disorders of the first 300 patients after psycholytic treatment, a follow-up study from 1968 has now been completed (19).

References

1. Sandison RA, Spencer AM, Whitelaw JDA. The therapeutic value of lysergic acid diethylamide in mental illness. J Ment Sci 1954;100:491–507.
2. Busch A, Johnson W. L.S.D. 25 as an aid in psychotherapy. Dis Nerv System 1950;11:241–3.
3. Yensen R. LSD and psychotherapy. J Psychoactive Drugs 1985;17:267–77.
4. Sandison RA, Whitelaw JDA. Further studies in the therapeutic value of lysergic acid diethylamide in mental illness. J Ment Sci 1957;103:332–43.
5. Leuner HC. Die Experimentelle Psychose. Monographie. Berlin: Springer Verlag, 1962.
6. Kaij L. LSD-behandling av neuroser. Lakartidningen 1963;60:926.
7. Geert-Jörgensen E, Hertz M, Knudsen K, Kristensen KK. LSD-treatment. Experience gained within a three-year-period. Acta Psychiatr Scand 1964;40 Suppl 180:373–82.
8. Alnæs R. Therapeutic application of the change in consciousness produced by psycholytica. Acta Psychiatr Scand 1964;40 Suppl 180.
9. Robak OH. LSD-25 som psykoterapeutisk hjelpemiddel (English summary: LSD as an adjunct to psychotherapy.) Tidsskr Nor Laegeforen 1962;20.
10. Johnsen G. Psykolytisk terapi. In: Alnæs R, Johnsen G, editors. Psykoterapi-metoder II. Oslo: Fabritius, 1968:155–69.
11. Johnsen G. Psykoterapeutiske aspekter på tvangsneurosene. In: Alnæs R, Johnsen G, editors. Psykoterapi III. Oslo: Fabritius, 1971:138–53 .
12. Johnsen G. Modellpsykosenes klinikk. Nord Psykiatr Tidsskr 1964;18:16–24.
13. Johnsen G. Three years experience with the use of LSD as an aid in psychotherapy. Acta Psychiatr Scand 1964;40 Suppl 180:383–8.
14. Johnsen G. Indications for psycholytic treatment with different types of patients. In: Abrahamson HA, editor. The use of LSD in psychotherapy and alcoholism. New York: The Bobbs-Merrill Co., 1967:333–40.
15. Manual of the international classification of diseases ICD 7 1955. Geneva: WHO, 1957.
16. Manual of the international classification of diseases ICD 8 1965. Geneva: WHO, 1967.
17. Aarsberetning. Modum Bads Nervesanatorium, 1963.
18. Leuner HC, Holfeld H. Ergebnisse und Probleme der Psychotherapie mit Hilfe von LSD-25 und verwandten Substanzen. Psychiatria Neurologia 1962; 143:379–91.
19. Madsen JD, Øyslebø T, Hoffart A. A follow-up study of psycholytic therapy with the aid of LSD. Nord J Psychiatry 1996;50:487–94.
20. Medical report II, fiscal year 1966/67. Copenhagen: National Health Service of Denmark, 1971.
21. Geert-Jörgensen E. Further observations regarding hallucinogenic treatment. Acta Psychiatr Scand 1968;203:195–200.
22. Cohen MM, Marinello MJ, Back N. Chromosomal damage in human leukocytes induced by lysergic acid diethylamide. Science 1967;155:1417–9.
23. Dishotsky NI, Loughman WD, Mogar RE, Lipscomb WR. LSD and genetic damage. Science 1971;172:3982.

Acknowledgement – The research is supported by grants from the Research Institute, Modum Bads Nervesanatorium, Norway.

Jørgen Due Madsen, M.D., Department of Psychiatry S, Hillerød Hospital, DK-3400 Hillerød, Denmark.
Asle Hoffart, Dr. psychol., Research Institute, Modum Bads Nervesanatorium, N-3370 Vikersund, Norway.