THE USES AND ABUSES OF L.S.D. AND OTHER HALLUCINOGENIC DRUGS

A subcommittee consisting of Drs D. T. Barnes (Convenor), L. H. Whitaker and Eric Seal was set up by the Victorian Branch of the College in December 1969. Dr Stanley Gold, as Convenor of the Committee on Social Issues, was kept informed of the subcommittee's activities.

The subcommittee met on two occasions, having initially decided on the rationale of its approach and terms of reference.

The report of the subcommittee was based on the results of a questionnaire sent to 19 psychiatrists who hold licences to use hallucinogenic agents. In addition, expert evidence was obtained at the second meeting in the form of submissions of genetic and biochemical evidence by Dr Saul Wiener (medical factors) and Professor G. A. Bentley of Monash University (pharmacological and biochemical evidence). The summary of evidence was presented to the Victorian Branch Committee of the A.N.Z.C.P. and it was decided to publish the report in the Branch Newsletter and to submit it to the *Journal*.

THE REPORT

In Victoria, since 1960, hallucinogenic drugs have been used regularly by a number of psychiatrists holding warrants from the Chief Health Officer. There are, to date, nineteen holders of warrants, all but one of these being in private practice. This system was introduced through the *Hallucinogenic Drug Regulations 1967*. This was done to provide for Governmental control and to lay down conditions under which these materials could be used by persons properly qualified. It was thus hoped to minimize the risk of harmful behaviour and consequences, which had received extensive publicity in the daily press, and unfortunate experiences resulting from self use and experimentation with these drugs by the lay public.

A questionnaire was sent to the nineteen psychiatrists holding warrants. Eleven replies were received by the Convenor. In addition, a summary of current literature relating to the use of these drugs was prepared and presented by Dr L. H. Whitaker. The earliest reference is to a paper by Friederking in 1951. Many hundreds of papers have been published and an authoritative review of the literature was published in 1958 by Eisner and Cohen. In addition, there have been several international conferences on the subject and their proceedings have been published. For example, at the Annual Meeting of the American Psychiatric Association in 1955, there was a round table discussion on L.S.D. and mescalin in experimental psychiatry..

It would seem, from a survey of the literature, that a publication by Harold A. Abrahamson in 1967 entitled "The Use of L.S.D. in Psychotherapy and Alcoholism" is to date an authoritative source. Locally, a number of papers has been presented to the Australian and New Zealand College of Psychiatrists by Drs Whitaker and Livingstone. The findings and reports of Abrahamson cannot be properly summarized here, but, in relation to therapeutic use, Abrahamson states that in responsible hands L.S.D. is considered a valuable tool in hastening successful results of psychotherapy as seen particularly with alcoholics, a group notoriously difficult to treat. It is further added that the stresses of modern living and the lengthy procedures of psychoanalysis have made us all aware of the need for less time-consuming techniques to give the patient the confidence and ability to face his own problems. A total view, therefore, of the literature would seem to indicate that there is still a place for the use of hallucinogenic drugs under proper supervision and control and in experienced hands.

In relation to the local situation, the results of the questionnaire revealed the following facts.

In regard to the experience of the therapist, the duration varied from two to fifteen years, the mean being eight years.

The number of patients treated varied from 1,000 in the case of one therapist to six in another.

The total number of patients treated was estimated to be of the order of 4,000. The average number of treatments per patient was estimated at 4.2.

In a survey of the questionnaire, it appeared that good results were found in the following circumstances:

1. Where there was high motivation and good rapport, which were regarded as more relevant than diagnosis. Good results were reported in cases of anxiety neurosis, hysteria, mixed neurosis, character disorders, psychosexual disorders including frigidity, impotence and paraphilias and there were reported successes with alcoholics and drug-dependent personalities.
2. Poor results were found to be related to circumstances opposite to the above. Factors emphasized were latent psychosis, infantile hysterical ego formation, poor ego strength and general severe, fixed domestic pressures and low intelligence. Both success and failure were reported in the condition of obsessional neurosis. All reported poor results with true psychopathy. Some found hallucinogenic drugs useful in remitted schizophrenics with residual symptoms.
3. The proportion of good to poor results ranged from 80:20 to 10:90.
4. The following temporary adverse reactions were observed: panic, confusion, paranoid reactions sometimes lasting up to 24 hours, depression, aggressive acting out, running away, disturbed marital relationships, etc. Many of the psychiatrists questioned regarded these adverse reactions as predictable and to be expected during any intensive psychiatric therapy or psychotherapy.

Other matters commented upon were the following, and further details of these answers can be supplied on request:

1. Long-lasting adverse reactions (rarely occurred).
2. Recurrence of hallucinatory episodes (rarely occurred).
3. Indications of dependency or addiction (not significant in series).
4. Whether the type of case treated were considered to be difficult or easy.
5. Psychotherapy during the drug session.
6. The strain and tension related to the personality of the psychiatrist.
7. Clinical evidence of chromosomal change.
8. The relative usefulness of L.S.D. as distinct from psilocybin.

In attempting to summarize this, all those replying to the questionnaire regarded the continuing use of L.S.D. as justified but most preferred psilocybin. It is emphasized that the drugs are only part of the answer in that they only facilitate psychotherapy. It is pointed out that in the questionnaire no attempt was made to obtain data concerning the type of psychotherapy used by the individual. There are obviously great variations from person to person. The huge number of variables involved make this area extremely difficult. The overall principle was that each individual used the type of therapeutic approach which he felt to be within his competence under the circumstances.

As indicated in the preliminary statement of the subcommittee, evidence was taken from Dr Saul Wiener in relation to chromosome studies. Dr Wiener submitted a report relating to three types of study:

1. *in vivo* studies of persons having taken the drugs.
2. *in vitro* studies of lymphocytes treated with L.S.D.
3. studies on experimental animals.

The subcommittee felt that in view of the importance attached to this aspect, Dr Wiener's summary should be published in full (*vide* Appendix A). Professor Bentley of Monash University Pharmacology Department supported Dr Wiener's conclusions in general. The pharmacology of the drug was discussed and to date, in his experience, the results with experimental animals are in accord with the foregoing conclusions.

Finally, Dr Seal agreed to contribute in relation to the moral and ethical considerations regarding the use of hallucinogenic drugs. There again, it was felt by the subcommittee that it would be advisable to append Dr Seal's comments in full (*vide* Appendix B).

I have taken the opportunity of presenting this material to members of the Branch Committee as fully as possible. To summarize the position briefly as seen by our subcommittee it is as follows:

The basis of our investigations at the present time indicates that the continued clinical and therapeutic use of hallucinogenic drugs would appear to be justified. Whilst fully recognizing the incipient and present dangers related to misuse, abuse and administration in the hands of those not properly qualified, we would draw attention particularly to the last paragraph of Dr Seal's contribution. The use of these drugs must be regarded as a privilege and a trust, and in particular the therapist should be constantly mindful of his responsibility as a member of this College and as a medical practitioner in his duty and responsibility to the community.

It is suggested that copies of this report be made available to:

i. Members of the College.
ii. The Chief Health Officer, Victoria (Dr Farnbach).
iii. the holders of warrants under existing Regulations.

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APPENDIX A

L.S.D. AND CHROMOSOMES

Types of Study:

1. Direct *in vivo* studies of people who have taken it.
2. *In vitro* studies of lymphocytes treated with L.S.D.
3. Use of experimental animals.

Results

1. **In vivo studies:** Contradictory and inconclusive. Most studies can be criticized on the following grounds:

   Patient: Status of chromosomes before L.S.D. use not established. Taking other drugs simultaneously.
   Previous viral infections and X-ray exposure not excluded.

   Drug: Actual dose of L.S.D. is sometimes in doubt or derived from statement of patient.
   L.S.D. obtained illegally may contain impurities and contaminants.

   Test: Difficult to compare results obtained in different laboratories.
   Varying interval between treatment and time of sampling.
   Methods of scoring vary.
   Variation in number of cells analysed.
   Microculture leads to more artificially produced aberrant cells.
   Only W.B.C. studied, not germ cells.
2. **In vitro studies:** Low level of abnormalities as found with other more commonly used drugs such as acetylsalicylic acid, ergometrine and caffeine.
3. **Experimental Animals:** Conflicting teratogenic effects on mice, rats and hamsters.
   Non-teratogenic in rabbit (cf. Thalidomide).
   Negligible effect on meiosis of germ cells in male or female mice.

Teratogenic Effect in Man: The teratogenic hazards in man have not been conclusively demonstrated or refuted.

Four cases reported of limb abnormalities in babies whose mothers had taken L.S.D. during first three months of pregnancy.

CONCLUSIONS

The variations in the methods used for demonstrating adverse effects of L.S.D. on chromosomes do not permit comparisons which are valid. In one of the best controlled double blind studies on 32 patients before and after the administration of L.S.D. no significant difference was found. (J.A.A.A. **210,** 1969 849).

In vitro studies do not indicate that the effects of L.S.D. on chromosomes are more deleterious than those of other commonly used drugs.

Four children have been born to mothers who had taken L.S.D. during pregnancy. In some species of laboratory animals, a teratogenic effect of L.S.D. has been demonstrated by some workers and not confirmed by others.

As it is more difficult to prove conclusively the absence of an adverse drug effect than to prove its presence, it is desirable in the present state of knowledge that L.S.D. be not given to pregnant women during the first three months of pregnancy.

APPENDIX B

MORAL AND ETHICAL CONSIDERATIONS IN THE USE OF HALLUCINOGENIC DRUGS

The considerations involve the integrity of the therapist as well as the overall welfare of the patient.

Prior to the passing of restrictive legislation in 1967 in the Commonwealth of Australia, there was virtually no check or limit on the use of the various hallucinogenic drugs, and it was left to the individual doctor to decide whom to treat and under what circumstances. There is no doubt that certain doctors who should never have handled the drugs were administering them to very unsuitable patients in circumstances and in doses that were at least questionable. Abuse of the drugs and worldwide concern as to their potential and actual dangers led eventually to the timely enactment of the *Poisons (Hallucinogenic Drugs) Regulations, 1967,* which set down very specific and definite norms and rules for their proper use.

The main hallucinogens (now reduced to two—L.S.D. and psilocybin) cannot now be bought, but are issued free of cost to members of the A.N.Z.C.P. who are deemed by the College to be suitable and sufficiently experienced therapists to use them safely and effectively.

This places a serious responsibility on such members not only to observe scrupulously the conditions of the appropriate legal regulations (e.g., those governing care and custody of the drugs, accurate keeping of records, etc.) but also, more subtly, it imposes on them the moral obligations of familiarizing themselves with the pharmacological and physiological and psychic effects of the drugs and of selecting patients very carefully for such therapy.

We should now know enough of the hallucinogens to be well past the experimental stage and no therapist or patient should view the process of therapy as experimental, nor should anything be left to chance as regards the patient's welfare and safety during or after the therapeutic session.

The following considerations should be beyond dispute.

1. The therapist must have a very thorough knowledge of the patient's psychopathology—at least commensurate with the surgeon's grasp of his patient's physical pathology. He should also have a thorough knowledge of his own psychopathology. It is not essential that he should have personal knowledge of the effect of these drugs, but he will find it much easier to empathize with his patient if he has.
2. He should not attempt hallucinogenic drug therapy until he and the patient have known each other long enough to acquire mutual familiarity and respect.
3. If such therapy is decided on, it must be by mutual consent and only after thorough briefing of the patient, and in circumstances that are acceptable to him.
4. The patient should be acquainted with the difficulties and dangers inherent in this form of therapy, including the question of potential chromosomal damage. However, it is fair to say that in our present state of knowledge and research, we are justified in not alarming our patients in this regard for current research does not clearly indicate that the patient's chromosomes are more at risk or necessarily even as much at risk with L.S.D. in the normal dose range as with other forms of drug therapy. However, there is no question that hallucinogens should never be given to any pregnant woman and should never be given to anyone in larger dose than the circumstances of the case demand.
5. No treatment should ever be undertaken other than in a hospital setting where full nursing facilities are at hand. Treatment should be given in a hospital where the nursing staff are especially trained and geared for this type of therapy and in conditions which ensure the patient's optimum welfare and safety.
6. The therapist must be on hand throughout the session and must never leave the precincts until he is fully satisfied that the patient's condition is satisfactory. This means that he must not order administration of the drugs before he himself arrives, and that he must ensure that the appropriate antidotes have been used to terminate the session — and that they must have taken effect. He must be prepared to return to the hospital if recalled for any emergency. He must also ensure that the patient does not leave hospital prematurely, nor drive a vehicle until thoroughly recovered.

7. He must be prepared to abide by the Regulations of the Act in a careful and conscientious manner. This involves keeping careful records in his register which he must submit for review to the Health Department inspectors on request. Although this may seem a burdensome chore, it is a salutary check against inefficiency, carelessness or even dishonesty, and should be respected as such.
8. It goes without saying that any non-therapeutic use of these drugs, either by doctors or patients is unethical, immoral and illegal, and breach of this code must render their suitability suspect, not only by the Health Department of the State concerned but by our College.

The use of these drugs must be regarded as a privilege and a very special trust and this involves not only the mental health of patients and the integrity of the therapists, but also the honour and reputation of the medical profession in general and of the College of Psychiatrists in particular.