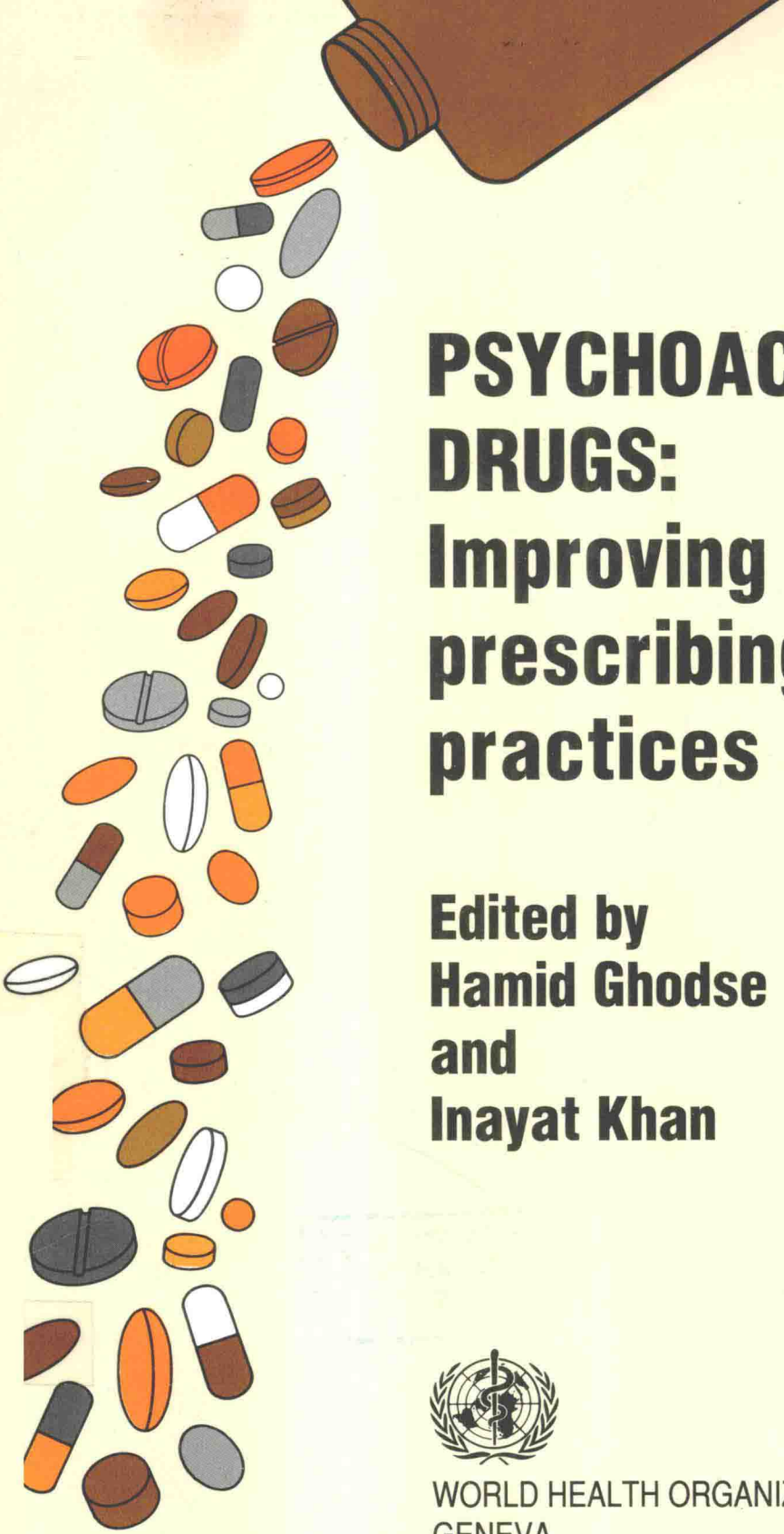

PSYCHOACTIVE DRUGS: Improving prescribing practices

Edited by
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WORLD HEALTH ORGANIZATION
GENEVA

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The World Health Organization is a specialized agency of the United Nations with primary responsibility for international health matters and public health. Through this organization, which was created in 1948, the health professions of some 165 countries exchange their knowledge and experience with the aim of making possible the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

By means of direct technical cooperation with its Member States, and by stimulating such cooperation among them, WHO promotes the development of comprehensive health services, the prevention and control of diseases, the improvement of environmental conditions, the development of health manpower, the coordination and development of biomedical and health services research, and the planning and implementation of health programmes.

These broad fields of endeavour encompass a wide variety of activities, such as developing systems of primary health care that reach the whole population of Member countries; promoting the health of mothers and children; combating malnutrition; controlling malaria and other communicable diseases, including tuberculosis and leprosy; having achieved the eradication of smallpox, promoting mass immunization against a number of other preventable diseases; improving mental health; providing safe water supplies; and training health personnel of all categories.

Progress towards better health throughout the world also demands international cooperation in such matters as establishing international standards for biological substances, pesticides, and pharmaceuticals; formulating environmental health criteria; recommending international nonproprietary names for drugs; administering the International Health Regulations; revising the International Classification of Diseases, Injuries, and Causes of Death; and collecting and disseminating health statistical information.

Further information on many aspects of WHO's work is presented in the Organization's publications.

Foreword

If WHO's declared goal of Health for All by the Year 2000 is to be achieved, physicians must have at their disposal a certain number of psychoactive substances. Because the use of these substances is so widespread, steps must be taken to ensure that they are used as rationally as possible. Some of these psychoactive substances are under international control, and WHO's role in recommending that such substances should be controlled in this way involves the development of methods of assessing both the harm done by the use of these drugs and their therapeutic usefulness. WHO is also responsible for collating and analysing this information so that the WHO Expert Committee on Drug Dependence can make recommendations for control based on the benefit–risk ratio of any given drug.

WHO has published guidelines for the control of narcotic drugs and psychoactive substances in the context of the international treaties; these should assist countries in undertaking their responsibilities under the treaties.

WHO has also established new procedures for assessing psychoactive substances involving a number of organizations that provide WHO with data for this purpose. The pharmaceutical industry plays an important role in the preparation of background documents for distribution to the members of the WHO Expert Committee; it is on the basis of these documents that decisions are made. Since the 1971 Convention came into force in 1976, WHO has reviewed many groups of drugs, and the United Nations Commission on Narcotic Drugs has accepted WHO's recommendations relating to benzodiazepines, opioid agonist and antagonist analgesics and amphetamine-like drugs. A number of other groups of drugs have been selected for review in the future.

WHO has also recognized that, in addition to assessing the benefit–risk ratio of psychoactive substances with dependence liability, it is also important to encourage members of the medical profession to prescribe such drugs rationally. This involves the appropriate training of physicians in this field, which in turn depends on cooperation between national authorities, schools of medicine and other related institutions, professional organizations and those involved in the manufacture and sale of these drugs.

The WHO Executive Board has considered this subject and has requested the Organization to investigate these issues further. This publication has been developed from the discussions at a meeting convened by WHO on the training of health care professionals in rational prescribing, held in Moscow from 8 to 13 October 1984 with the collaboration of the Soviet authorities. It is hoped that it will be of assistance to all those concerned with the problem.

T. Lambo
Deputy Director-General, WHO

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The editors also thank all those who have contributed to this publication (see list on pages viii–ix) for their skill, perseverance, and above all their enthusiasm. We should also like to thank Dr J.-J. Guilbert, Dr J. F. Dunne and Dr P. Brudon Jakobowicz for reading the manuscript and for their very constructive help.

Although some participants have not been directly associated with the preparation of the text, their contributions to the content of the publication as a whole have been of substantial importance and the authors and editors have benefited from their suggestions and advice.

The meeting could not have taken place without the wholehearted support of the United Nations Fund for Drug Abuse Control and the collaboration of the Soviet authorities.

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Contents

1. Introduction

Although biological methods of treatment for mental illnesses were available before the Second World War (malaria for general paralysis in 1917; continuous narcosis for functional psychosis in 1922; insulin shock for schizophrenia in 1933) it was not until the early 1950s that effective and safe psychoactive drugs became available. As a consequence of the introduction of chlorpromazine and reserpine, the number of mental hospital in-patients has fallen markedly, even though admission rates have increased, lengths of stay have been reduced and much greater emphasis is now placed on care within the community. The value of antidepressants in the treatment of severe depressive illness is also well documented. The progress made should not be perceived, however, solely in terms of the number of hospital patients and the economic benefits of out-patient treatment. The very real reduction in human suffering, both of patients and their families, must never be forgotten. Furthermore, the ability to treat psychotic ("mad") patients within the community has removed much of the stigma of mental illness and reduced public fear of it.

Chlorpromazine and reserpine were, of course, just the beginning of the pharmacotherapy revolution in psychiatry. Since then, a whole range of psychoactive drugs has been introduced, including, for example, the anxiolytics (minor tranquillizers), hypnotics and antidepressants, and it is these that are at the centre of current concern about the increasing, and what is perceived as the excessive, use of such drugs.

In order to be able to discuss questions of the use, abuse and misuse of these drugs it is essential to define the terms used. The difficulty of defining "abuse" and "misuse" is discussed later (see p. 8); as far as the substances themselves are concerned, this problem has been considered extensively both by WHO and by the United Nations Commission on Narcotic Drugs and their definitions have been adopted here. The term "psychoactive" embraces all those substances that affect the mind. It is commonly used synonymously with "psychotropic", but "psychoactive" embraces the whole group of substances, while "psychotropic" covers only those that influence mental processes *and* can lead to dependence and are listed in the 1971 Convention on Psychotropic Substances. In this publication, the term "psychoactive" means prescribed psychoactive substances (not LSD, cannabis, etc.).

It is perhaps worth while to try to analyse why the increasing use of psychoactive drugs arouses so much concern when an increased number of

prescriptions for nonpsychoactive drugs rarely provokes such strong reactions. This difference in response is partly because psychoactive drugs are often used, not to achieve a cure, but to provide symptomatic relief only. This cannot be the whole answer, however, because symptomatic treatment is well established in medical practice and is not usually a cause of concern.

At the root of the problem of the use of psychoactive drugs is the fact that the symptoms for which they are prescribed, such as insomnia, depression, anxiety, and inability to cope, are often those of underlying personal, interpersonal and social problems rather than of recognized medical conditions. Thus the medical profession finds itself providing a pharmacological response to nonmedical problems, a situation with profound implications for society as a whole. It is the deep unease about this situation, coupled with the knowledge that the drugs being prescribed in such large quantities can be misused and give rise to dependence, that is the cause of the concern about the large number of prescriptions for psychoactive drugs.

It is difficult to estimate the extent of psychoactive drug misuse worldwide, but some misuse has been identified in 88 countries in all regions of the world. The massive nature of the problem was highlighted at the Conference of Ministers of Health on Narcotic and Psychotropic Drug Misuse held in London in March 1986.[1] The use and abuse of psychotropic drugs should not, however, be seen in isolation. Hypnotics, tranquillizers, and antidepressants are only part of the whole spectrum of psychoactive substances, which includes not only heroin, cocaine, etc., but also medicinal and recreational drugs available without prescription. Control of illicit drugs is the task of the law enforcement agencies, such as the police and customs; responsibility for controlling the availability of the two most important recreational drugs, tobacco and alcohol, clearly lies with governments. In contrast, control of the availability of prescribed psychoactive drugs is undoubtedly the responsibility of the medical profession who prescribe them; the problems associated with their abuse can therefore be considered as iatrogenic. Any attempts to control the availability of psychoactive drugs and to reduce the incidence of the associated problems must therefore be focused on the medical profession.

These problems and the concern they generate are not new. For example, during the 1950s and 1960s, much concern was expressed about the increasing misuse and abuse of a wide variety of psychoactive substances. In 1956 the United Nations Commission on Narcotics Drugs drew attention to the abuse of amphetamines and in 1965 WHO issued a warning regarding the misuse of sedatives. A number of countries enacted legislation, the effectiveness of which was hampered by the lack of international controls; as a result, in 1971, the Convention on Psychotropic Substances was adopted at the Vienna Conference,[2] at which 71 states were represented.

The Convention provides for the control of 98 psychotropic substances, which are assigned to one of four Schedules. Schedule 1 drugs are

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[1] WORLD HEALTH ORGANIZATION. *Report of the Director-General on abuse of narcotic and psychotropic substances*. Unpublished document A39/10 Add. 1 (1986).

[2] The Convention on Psychotropic Substances 1971, Vienna, 21 February 1971. Unpublished document E/Conf. 58/6, New York, United Nations, (1977).

those most strictly controlled (the use of such drugs even for laboratory purposes requires permission from the Government concerned), and Schedule 4 the least strictly controlled. The decision to subject a drug to control under the 1971 Convention depends, firstly, on its liability to produce dependence and its potential for abuse; secondly, on the social and public health problems that may arise as a result of this abuse; and thirdly on its therapeutic usefulness.

It is the therapeutic usefulness of psychoactive drugs that can easily be overlooked when concern about their excessive use arises. However, the scientific evaluation of a drug should not be influenced by attitudes and value judgements, and the same stringent tests and standards should be applied to both psychoactive and nonpsychoactive drugs. For example, the usefulness of any drug depends on its therapeutic efficacy at optimum dose and duration of treatment. Prescription of the optimum dosage is very important; if many patients receive too small or too large a dose, then a high proportion of the drug being prescribed may be wasted; in contrast, if most patients receive the correct dose of a drug that has been shown to be efficacious, then the total amount prescribed, even if large, will be used for the intended purpose. In this context, the development of tolerance to a drug may mean that the prescribed dose is no longer effective and that to continue prescribing it at that dose is of little or no use.

For psychoactive, as for nonpsychoactive drugs, therefore, the aim should be to ensure that they are prescribed only for the condition(s) for which they have been shown to be effective, and not for any others, and that they are prescribed in the correct dose and for the correct period of time. To achieve this aim, i.e., the rational prescribing of psychoactive substances, requires a training programme primarily for physicians but also for other health workers.

During recent years WHO has devoted a great deal of effort to publicizing both the dangers associated with the use of psychotropic drugs and the benefits that can be derived from their use. In particular, a meeting was organized in Moscow in October 1984, in collaboration with the United Nations Fund for Drug Abuse Control and the Soviet authorities, whose purpose was to:

- Identify deficiencies in training programmes already in existence on the rational use of psychoactive drugs and examine various educational approaches that might be useful in eliminating the excessive use of these drugs;

- Investigate what other measures, apart from education, might help to ensure the rational use of drugs;

- Discuss the role which various medical educational institutions, medical and other professional associations, the pharmaceutical industry, government agencies, nongovernmental organizations and international organizations could play in these educational programmes, and the way in which they might be persuaded to cooperate in this task;

- Seek and encourage collaboration in this field between various interested parties and, in particular, the nongovernmental organizations.

From the start, the meeting understood the term "training" in the broadest possible sense; improving the prescribing of psychoactive drugs will not be achieved merely by including a few lectures on the subject in undergraduate medical training and providing refresher courses for post-graduates. It was recognized that many factors influence prescribing and that many training approaches are possible.

The first section of this publication deals with the background to the problems associated with psychoactive drug use. The whole area of such use is reviewed and different approaches to assessing the level of use are presented; patterns of inappropriate use are described and the particular problems of developing countries identified. The effectiveness and the therapeutic usefulness of these drugs are also emphasized. This helps to make the point that the aim of this book is not simply to emphasize the dangers of psychoactive drug use and to campaign blindly for a reduction in such use, but rather to *improve* the way in which they are prescribed. Their beneficial effects can then be made available to all who need them without at the same time increasing the numbers of people dependent on them or consuming excessive amounts.

The economic background to the prescribing of psychoactive drugs is also important. The multinational pharmaceutical companies are both large and highly profitable, and make a substantial contribution to the economy of the (mainly rich) countries in which they are based. In these countries, their influence on drug policy is also likely to be considerable. The developing countries, however, do not reap the financial benefits of drug manufacture as they import most of their drugs. Operating as they do on limited budgets, the availability of relatively cheap, cost-effective psychoactive drugs is welcome. If, however, the comparative cheapness of these drugs serves as an inducement to prescribe them inappropriately, not only is the morbidity associated with their use increased unnecessarily, but funds are diverted from more urgent health priorities.

Because these drugs are (or should be) available only on prescription from a physician, the act of prescribing them is itself of great significance in achieving improvements in the way in which they are used. Prescribing is therefore the topic of the second section of this book, in which the many factors influencing it are explored. These include the individual doctor's own educational experiences, both undergraduate and postgraduate, the varied activities of the pharmaceutical companies, and the doctor's own personal characteristics; the patient himself may affect the doctor's decision, as may the other health professionals involved, and so on. All of these ill-defined and often interrelated factors may affect the very important decisions that the doctor has to make: to whom to prescribe, what to prescribe, how much and for how long.

In the light of the information on the variety of influences acting on doctors, often (perhaps usually) without their being aware of them the chapter on the principles of rational prescribing shows the way forward. It provides clear guidelines on a scientific approach to prescribing psychoactive drugs, reminding the doctor that the same criteria apply to prescribing these drugs as to any other. For example, the condition or symptom to be treated must be identified, a decision must be taken as to the appropriate duration of treatment, patients at risk from side-effects must be identified, side-effects must be monitored, and so on. All of these decisions and

observations are usually made automatically for nonpsychoactive drug prescriptions; when psychoactive drugs are involved, however, the usual clinical approach may not be followed, perhaps because it seems less appropriate when dealing with the personal, interpersonal and social problems underlying the patient's symptoms. This chapter thus provides a timely reminder of good clinical practice.

Still on a practical note, the chapter on alternatives to the prescribing of psychoactive drugs emphasizes that, if inappropriate use of such drugs is to be reduced, the doctor must have alternatives to offer the patient. The life stresses producing the patient's symptoms are often unlikely to go away and the doctor is rarely in a position to deal with them. Even if a pharmacological solution is seen to be inappropriate, it is difficult for a doctor to withhold symptomatic relief and to offer nothing else when faced by a patient suffering, for example, from insomnia, anxiety or depression. However, a variety of other approaches are available, including behaviour therapy, psychotherapy, counselling, etc. Some of these approaches sound technical and difficult, but are often, in fact, part of the total therapeutic relationship between doctor and patient. A great advantage of their use is that professionals other than physicians can be trained to carry them out. More important, however, is that the patient retains responsibility for his own life and avoids being labelled as "sick" or as a patient; this in itself may be of value in preventing the future abuse of drugs.

In the light of the greater understanding thus achieved about prescribing psychoactive drugs, and of how it should be done, the third section of the book addresses the problem of how to train health care professionals and, in particular, physicians to improve their prescribing practices.

This must begin in formal undergraduate education, and the shortcomings of the present system are explored and identified, since it is these that eventually lead to the inappropriate prescribing of psychoactive drugs. Psychoactive drug use and the consequences of abuse must be formally taught in medical schools and receive the attention merited by a condition that can cause widespread public health and social problems. However, as already pointed out, undergraduate training is only the starting point. The practising doctor not only has to keep abreast of new drugs and treatment, but is also exposed to a variety of influences. Continuing education is obviously essential and it is important that all the institutions and organizations that are in a position to train and influence the doctor are involved so that this influence is exerted in the direction of the rational use of psychoactive drugs.

A variety of professional organizations are involved in continued medical training, particularly of the primary care physician, their involvement taking such forms as seminars, conferences, articles in journals, etc.; more important, perhaps, is their central role in liaising with other bodies, such as the pharmaceutical industry and the government. Professional organizations are usually highly respected and their influence on doctors, the public and other institutions is considerable. Large-scale efforts towards improving rational prescribing must therefore involve these organizations, not only because they are in a position to "deliver" such training but also because, without their influence, any such efforts lack credibility.

The role of the pharmaceutical companies in training is often ignored in the belief that everything that they do, including financing formal

meetings, is aimed at increasing the sale of their products. Their influence may thus be perceived as running counter to the aim of rational prescribing, but their role in research and in disseminating information cannot be ignored and, in the long run, the optimal prescribing of psychoactive drugs will also be in their best interests. Undoubtedly, the best way to take advantage of their skills and resources is by inviting them to participate in programmes at all levels. Collaboration between the pharmaceutical industry and other interested bodies is more likely to be fruitful in achieving rational prescribing than suspicion and confrontation.

Finally, of course, it is the public who, as patients, consume psychoactive drugs, and their expectations and pressures may influence the doctor's decision whether or not to prescribe them. Their interests are represented by consumers' organizations which, while they have no direct responsibility for the training of health professionals, have seen fit to contribute to it by the provision of specific information about all classes of drugs, including psychoactive ones.

Other nongovernmental organizations, often representing specific interests, may also have considerable influence; some are primarily self-help groups, which may play a significant role in policy planning and in disseminating information to professionals. Governments also play an important part, by virtue of the fact that they control the availability of drugs; there are many opportunities for increasing knowledge about psychoactive drugs at every stage of this control process. Because psychoactive drugs are used in all parts of the world and are controlled under international conventions, international organizations and, in particular, WHO, can also make an important contribution.

Clearly, the essential component of the training process is information. This can be gathered from a variety of sources and imparted in a variety of ways. It is important to ensure that the content and the method used to disseminate information are appropriate to the target audience. It is for this reason that the evaluation of training is essential so that a sound basis can be developed for future efforts. For example, it is necessary to determine which items of information and which methods of imparting them are effective in bringing about the rational prescribing of psychotropic drugs.

By now it will be appreciated that the Moscow meeting was wide-ranging in its discussions and that every possible approach to education was explored. The participants came from a wide variety of professional disciplines and from all parts of the world. This diversity of background and experience enriched the discussion at the meeting and has made an invaluable contribution to the quality and usefulness of this publication. Although different chapters were the responsibility of particular authors, they made use of the comments, suggestions and opinions of the whole group. This publication can only be a summary of the discussions and of the conclusions reached.

While the ultimate aim of this publication is to communicate some of the ideas considered above to health professionals of all kinds, it is intended primarily for physicians, although it is realised that responsibility for community health care has different structures in different countries. It is not, however, just a collection of ideas; the meeting produced firm recommendations which should serve as guidelines for policy makers. It should be emphasized that the term "policy makers", as used here, includes

not only government health authorities, but universities, post-graduate colleges and other groups, such as industry, all of which have an important influence. The recommendations of the Moscow meeting have been reproduced in Chapter 11 and the participants are listed in Annex 1.