DRUG ABUSE CONTROL:
The role of World Health Organization

By

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On the guinea-pig ileum, 5-hydroxytryptamine appeared to act in the same way as tryptamine on two types of receptor (morphine-sensitive and phenoxybenzamine (Dibenzyline)-sensitive). The actions of analogues of 5-hydroxytryptamine on the phenoxybenzamine-sensitive receptors resembled their actions on the rat uterus, and the actions on the morphine-sensitive receptors slightly resembled those on the rat fundus strip. The guinea-pig ileum preparation, however, did not appear to be more suitable than the rat uterus and rat fundus strip for testing the ability of compounds to imitate or antagonize 5-hydroxytryptamine.


Khan, I. (1962). Effects of chaksine chloride on the cholinergic and tryptamine (Serotonin) receptors in the isolated G-Pig ileum preparations. 7th All Pakistan Medical Conference and International Clinical Seminar. Hyderabad.


Khan, I. (1965). Some comparative observations on the local and imported food on growth and maintenance of mice and rat colonies. 16th All Pakistan Science Conference, Karachi.


Khan, I. (1970) Assignment report to promote the rational use of drugs in Pakistan, World Health Organization/EMRO.


1. The world community realized as early as the beginning of this century that collective action between nations is to be more effective in controlling drugs of abuse. A number of international drug control treaties including the Single Convention on
Narcotic Drugs, 1961, controls drugs primarily obtained from plant material (Opium, coca leaves and cannabis) and synthetic analogues of morphine. The UN Convention on Psychotropic Substances, 1971, is aimed at controlling psychotropic substances and was formulated in Vienna in 1971.

2. It lays a great responsibility on the World Health Organization to recommend to the United Nations Commission on Narcotic Drugs notifications initiated by the World Health Organization, or by a party to the Convention, regarding international control.


Khan, I. and Wadud, K.A. (1976) [Intoxicants or poisons to kill] in Pushto, Pushto Academy, Peshawar University.


A conference was held in London in March 1980 on the use and misuse of psychotropic substances. The conference noted that there was a preponderance of medical practitioners who prescribed psychotropic substances. The topics covered ranged from the extent of use of psychotropic substances to the effects of their use in producing different types of morbidity. Consideration was given to controls of psychotropic substances, including steps to reduce their misuse without restricting their legitimate use.


The cultivated Erythroxylum varieties E. coca var. coca, E. coca var. ipadu, E. novogranatense var. novogranatense and E. novogranatense var. truxillense contain 18 alkaloids, identified so far, belonging to the tropanes, pyrrolidines and pyridines, with cocaine as the main alkaloid. The biological activity of the following alkaloids has been reported in the literature: cocaine, cinnamoylcocaine, benzoylecgonine, methylecgonine, pseudotropine, benzoyltropine, tropacocaine, alpha- and beta-truxilline, hygrine, cuscohygrine and nicotine. The biological activity of cocaine and nicotine is not reviewed here, because it is discussed elsewhere in the literature. Hardly anything is known about the biological activity of the other alkaloids present in the four varieties mentioned. The biosynthesis of the coca alkaloids has been outlined.


Presents and explains the international legal framework established to facilitate the control of narcotic and psychotropic substances. The book explains the obligations of parties to the conventions and shows how parties should formulate their national drug policies and legislation to conform with the aims and purposes of the international drug conventions. Readers are also guided in the formulation of alternative policies allowing adaptation of the provisions of the conventions to national situations. Other topics include the registration and distribution of medicinal drugs, the supply and use of psychoactive drugs, assessment of drug dependence and abuse, treatment and rehabilitation, and law enforcement.


A symposium of over 125 scientists, held in August 1984 at the campus of Oxford University, considered the latest developments concerning cannabis research. Evidence on the mode of tetrahydrocannabinol action on the central nervous system indicates that acetylcholine turnover in the hippocampus through a GABA-ergic mechanism is of major importance, though the role of the dopaminergic or serotonergic mechanism and involvement of postglandins and c-AMP is not ruled out. The use of cannabis causes prominent and predictable effects on the heart, including increased work-load, increased plasma volume and postural hypotension, which could impose threats to the cannabis users with hypertension, cerebrovascular disease or coronary arteriosclerosis. Cannabis or tetrahydrocannabinol has damaging effects on the endocrine functions in both male and female of all animal species tested. Among possible mechanisms of action, it is suggested that tetrahydrocannabinol disrupts gonadal functions by depriving the testicular cells of their energy reserves by inhibition of cellular energetics, and that it stimulates androgen-binding protein secretion, which may account for oligospermia seen in chronic cannabis smokers. In addition to these direct effects on gonads, tetrahydrocannabinol interferes with hormonal secretions from the pituitary, including luteinizing hormones, follicle-exposure to cannabinoids can influence developmental and reproductive functions in the offspring, but it is difficult to separate possible teratogenic effects from subsequent gametotoxic and mutagenic potentials of cannabinoids.


The abuse by injection of heroin or other drugs has long been associated with liver disease caused by hepatitis B virus (HBV) and other viruses. Increasingly severe hepatic and virological complications of parenteral drug abuse have been reported due to infection with new viruses or concomitant alcohol abuse. The hepatitis delta virus (HDV) can replicate and cause liver infection only in the presence of HBV, such infection in HBV carriers may cause rapidly progressive and clinically significant liver disease. Liver cirrhosis is frequently detected in parenteral drug abusers who have chronic infection with both HBV and HDV or who also abuse alcohol. More than one quarter of those persons with acquired immunodeficiency syndrome (AIDS) in the United States of America are homosexual or heterosexual males who are parenteral drug abusers. Existing evidence implicates parenteral drug abusers in the spread of hepatitis viruses and the retrovirus associated with AIDS to the general population. To cope with these serious problems the authors suggest that more intensive international co-operation is needed, particularly with a view to promoting data collection, research and the exchange of knowledge and experience on measures that have been effective in dealing with parenteral drug abuse and its complications.


Les efforts visant à instaurer un cadre juridique international pour le contrôle des substances psycho-actives, dont les premiers remontent à la Commission internationale de l’Opium à Shanghai en 1909, on about à l’adoption d’un certain nombre d’instruments internationaux. La formulation de la Convention unique sur les Stupéfiants de 1961, avec le Protocole de 1972 en portant amendement, et celle de la Convention de 1971 sur les Substances psychotropes sont les princes réalisations à mettre à l’actif de la lutte internationale coordonnée contre les drogues engendrant la dépendance. Les présentes directives ont été établies en vue d’aider les États Membre de l’OMS à promouvoir l’utilisation rationnelle des substances psycho-actives et à orienter leurs administrations vers les secteurs où l’adoption de mesures peut se révéler nécessaire. Elles expliquent les obligations des parties aux conventions sur le contrôle des stupéfiants et des substances psychotropes et précisent comment leurs
politiques et leurs législation doivent être formulées pour répondre aux objectifs de ces conventions. Elles indiquent également comment les parties peuvent demander la collaboration technique de l'OMS et des organes compétents des Nations Unies pour mettre en vigueur les dispositions des conventions, en se référant constamment aux publications et documents techniques pertinents de l'OMS.


Describes a simple, practical and adaptable methodology for monitoring progress in the treatment and rehabilitation of drug-dependent persons. The methodology, which stems from a research and reporting project on the epidemiology of drug dependence, is designed for use in measuring treatment outcome for different types of drug users receiving different types of treatment in different sociocultural environments. The main part of the book consists of detailed information on four sets of data recording forms. The forms are reproduced in full detail, together with instructions for their use, information on data processing, and an analytical description of issues encountered in the design and implementation of studies using these instruments.


Idänpää-Heikkilä, J.E., Khan, I. et al. (1987). Psychoactive drugs and health problems: report of a meeting by the World Health Organization, with the


Assesses data on 31 barbiturates in order to determine which of these substances should be recommended for international control. Barbiturates are classified in three main groups: ultra-short-acting barbiturates used as intravenous anaesthetics or for the induction of anaesthesia, the intermediate-acting barbiturates used mainly as hypnotics and daytime sedatives, and other longer-acting substances used in the management of epilepsy. Five of the 31 substances are recommended for placement in Schedule III or IV. A concluding section, devoted to recommendations for improving review procedures, discusses the problems caused by the difficulty of obtaining phenobarbital in many developing countries, especially in view of the effectiveness of this Schedule IV substance in the treatment of epilepsy.


Assesses data on acecarbromal, carboxmal, clomethiazole, chloralodol, methylpentynol, triclofos and secobarbital. For each, recommendations concerning the need for, and level of, control are made following an assessment of available data on the similarity to already known compounds and effects on the central nervous system, dependence potential, likelihood of abuse, and therapeutic usefulness. The book also contains detailed reports on five designer drugs: three analogues of fentanyl, MPPP and PEPAP. All five were recommended for control in Schedules I and IV.


A wide-ranging analysis of what can be done to reduce the misuse of psychoactive drugs without compromising appreciation for their therapeutic value. The book opens with an overview of changing trends in the use and misuse of psychoactive drugs, including neuroleptics, antidepressants, hypnotic sedatives, and anxiolytics. Common patterns of inappropriate use, in developing as well as developed countries, are identified and different methods for assessing levels of use are critically compared. For each class of drug, readers are given brief information on dependence liability, therapeutic value, and social benefits. A timely reminder of
good clinical practice is provided in a chapter outlining the principles of rational prescribing as these pertain to patients complaining of life stress, to patients whose complaints are related to disease states, and to doctor shoppers. Readers will also find a discussion of non-physical approaches that can be used to alleviate symptoms usually treated with psychoactive substances. The remaining chapters concentrate on the importance of physician education as a strategy for reducing the misuse of psychoactive drugs on the largest possible scale.


Over the past 13 years, Lincoln Hospital, New York City, has used acupuncture as the primary method of treatment for drug-addicted persons. The programme receives, on a daily out-patient basis, 200 drug-addicted persons for detoxification. Acupuncture relieves withdrawal symptoms, prevents the craving for drugs and increases the rate of participation of patients in long-term treatment programmes. The best results have been obtained by treating patients in an open-group setting, using acupuncture points in the external ear with needles without electrical stimulation. The same points are used at each visit, regardless of the type of drug to which the person is addicted. This method is also used for the treatment of persons suffering from stress. The National Acupuncture Detoxification Association (NADA) has conducted successful training programmes for physicians and related staff in using the technique and philosophy of traditional Chinese acupuncture. These training programmes usually include courses in counseling skills, ethical responsibilities and sterilization procedures that are appropriate to local conditions. NADA has begun to operate a pilot programme to treat approximately 1,000 drug abusers and people who are under a high level of stress, which may lead them to the abuse of drugs. It is assumed that acupuncture, in conjunction with other drug-demand reduction programmes, can make a significant impact on the illicit demand for drugs by reaching this entire range of patients.


Records the recommendations of a WHO expert committee responsible for reviewing information on psychoactive drugs to assess the need for their international control under the Single Convention on Narcotic Drugs, 1961, or the Convention on Psychotropic Substances, 1971. Evaluations are presented for fourteen substances, including four benzodiazepines, nine designer drugs (analogues of fentanyl, tenamfetamine and aminorex) and dronabinol. Recommendations are based on a review of pharmacological and epidemiological data together with evidence indicating the potential of serious abuse-related social and health problems. For each drug, a summary of effects on the central nervous system, dependence potential, likelihood of
abuse, and therapeutic usefulness is followed by the committee's recommendations on scheduling under the international treaties. Proposals include the recommended scheduling of the benzodiazepine midazolam and the rescheduling, to provide for less stringent control, of dronabinol, which may be useful as an antiemetic adjunct to cancer chemotherapy. The committee also recommended that all nine designer drugs be subject to international control. The report concludes with general recommendations concerning specifications for the types of information required to facilitate decision-making on the international control of psychoactive substances.


Conveys the view and recommendations of an expert committee commissioned to assess selected narcotic drugs and psychotropic substances and to determine which should be recommended for control under existing international treaties. Evaluations and recommendations are presented for 14 substances in the categories of sedative-hypnotics, opioid agonist-antagonist analgesics, and stimulants. Recommendations for scheduling for descheduling are based on ratings of therapeutic usefulness as well as the potential for abuse. For the opioid agonist-antagonist analgesics, the report provides a general explanation of criteria for scheduling, including a discussion of mechanisms of pharmacologic actions that influence drug-seeking behaviour and dependence and form the basis of the committees evaluations.


Décrit une méthodologie simple, pratique et aisément adaptable pour l'évaluation des progrès réalisés dans le traitement et la réadaptation des sujets pharmacodépendants. Cette méthodologie, qui est l'aboutissement d'un projet de recherche et d'évaluation sur l'épidémiologie de la pharmacodépendance doit servir à mesurer les résultats du traitement pour différents types d'utilisateurs de drogues recevant différents types de traitement dans différents environnements socio-culturels. La majeure partie de l'ouvrage est constituée par le commentaire détaillé de quatre séries de formulaires d'enregistrement. Les formulaires sont reproduits intégralement, avec des instructions pour leur utilisation, des informations sur le traitement des données et une analyse des problèmes rencontrés dans la conception et l'exécution d'études réalisées à l'aide de ces instruments.


Analyse poussée de ce que l'on peut faire pour réduire l'usage irrationnel des médicaments psychoactifs sans porter atteinte à l'appréciation de leur valeur thérapeutique. L'ouvrage s'ouvre sur un aperçu des tendances en matière d'utilisation et de méusage des médicaments psychoactifs, neuroleptiques, antidépresseurs, sédatifs hypnotiques et anxiolitiques compris. Pour chaque classe de médicaments, de brèves informations sont fournies au lecteur sur leur aptitude à engendrer la dépendance, leur valeur thérapeutique et les avantages de leur utilisation sur le plan social. Un rappel opportun des bonnes pratiques cliniques est donné dans un chapitre exposant les principes d'une prescription rationnelle selon que l'on s'adresse à des malades se plaignant de stress, à des malades présentant un état pathologique ou aux "hypocondriaques". La fin de l'ouvrage traite de la formation à donner au médecin en tant que stratégie essentielle pour réduire l'usage irrationnel des médicaments psychoactifs dans la plus grande mesure possible.


Khan, I. (1991). Report of a visit between 22nd September to 4th October 1991 to China to review activities within the various colleges of Beijing Medical University relating to the rational use of psychoactive drugs and its recommendations.


1. The UN Convention 1971 on Psychotropic substances requires the World Health Organization to recommend psychotropic substances for international control.

2. This convention is based on evaluating the benefit and risk ratio, in particular on the public health and social problems associated with its use.

3. The UN Commission on Narcotic Drugs takes a final decision on these recommendations and is then binding in countries which are party to the convention.

4. Presently 34 commercially available benzodiazepines are under international control at minimum level; schedule IV of the 1971 convention, to be available on the physician's prescription and not over the counter.


Khan, I. (1992). Las enseñanzas de farmacia y el abuso de drogas en el Pakistan [carta].


Khan, I. (1997). Que faire pour favoriser un usage rationnel des médicaments?

Khan, I. (date?) Rational use of psychotropic drugs with special emphasis on tranquilizers in non-psychotropic settings. International Symposium "Rational Use of Psychotropic Drugs in Clinical Medicine, Moscow, USSR.