PROGRAMME ON
SUBSTANCE ABUSE

Health Professional Education on Psychoactive Substance Use Issues

Report based on WHO Consultation

WORLD HEALTH ORGANIZATION
ABSTRACT

Changes in health professional education on psychoactive substance use disorders have been discussed by experts and leaders in this field for almost 10 years, under the sponsorship of the World Health Organization (WHO), the World Psychiatric Association (WPA) and other international organizations. The present document attempts to compile the major discussions and recommendations made since 1989 and gives examples of initiatives taken by several countries and universities. It presents the current approaches proposed by the Programme on Substance Abuse (PSA) to change education and training in substance use disorders to help meet the increasing demand for services and trained personnel, changes in health systems and the need for quality care for patients presenting such problems. Education and training needs to go beyond the traditional curriculum on pharmacology and toxicology, to provide proper knowledge and skills to assess, treat, care and rehabilitate patients with substance use related problems, starting in the primary health care setting. WHO encourages the use of this document as the basis for discussions and as a lever for proposing and implementing initiatives which can improve the ability of professionals to deal with the problems of psychoactive substance use at the individual, family and community levels.

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1. Background

The magnitude of alcohol, tobacco, solvents, psychotropics and illicit psychoactive substance use problems today is well-documented, and it is estimated that it costs over US$ 125 billion per year in health care and lost work in the United States of America alone. In general medical facilities, an average of 20-40 per cent of patients present with such problems, many of which go undiagnosed. When the sequelae of chronic substance use, such as cirrhosis, trauma, and infection present, only then do they receive proper medical attention, but the patient’s primary substance use problem may go untreated. Furthermore, the rate of substance use problems among general psychiatric patients with other disorders has been found to be 25-60 per cent, depending on the region and clinical setting. Despite this, education and training of health professionals has been seriously lacking in this field. For example, training in this area is rarely required in medical, nursing and psychiatric residencies or post-graduate courses in most countries.

There is also good evidence that early and brief interventions for alcohol and tobacco are cost-effective forms of treating and of preventing the development of complications such as dependence. Primary care physicians and other health care professionals are in a key position to recognize and successfully intervene in patients with such problems because a considerable number of such patients present in these settings with a variety of clinical problems. For other substances, while the range of approaches is varied and dependent on the type and pattern of use, considerable improvements in health can be achieved through relatively simple measures.

Health professionals, however, working in primary care settings, are not usually involved with the assessment and management of these problems because of pessimism about their effectiveness, confusion regarding their roles, and the lack of professional education and training in these areas.

In general, medical education has been oriented towards hospital-based clinical practice and training, specialized and basic science research, medical technology, and post-graduate specialty training programmes, and the substance use field is not an exception. As a result, there has been an increased supply of specialists, while generalists are characterized more by the absence of post-graduate specialty training than by having a broad set of skills for community-oriented primary care practice. Treatment for substance use disorders became a matter for the specialist, and this does not serve the needs of a growing number of people in the earlier stages of their substance use related problems, who would still benefit from simple interventions. Hospital-based settings offered a highly skewed set of complex problems which were often not seen in community based primary care practices, giving the impression that substance use problems were incurable and invariably led to chronic and severe dependence. The stigma related to illicit drug use and misconceptions about the etiology of substance use problems as a “moral weakness” led to a decrease in access to treatment for the majority of individuals with such problems. As a result of all of this, the public health impact of substance use problems continues to increase worldwide.

This can change, however, by training primary care providers to respond effectively to substance use problems if they understand the patient’s living situation, family and community. They can offer services to meet the patient’s individual needs as well as other needs applicable to the entire community, such as health promotion, disease prevention and harm minimization. Well trained health providers will not make premature or unnecessary referrals to specialists but give accessible, acceptable and effective care.

In order to provide professionals with adequate education and training on the assessment and treatment of substance use problems, health professional education and practice must change. In addition, since in many countries health care reforms are also occurring, the health care workforce must be prepared to deal with, adapt and actively contribute to these reforms and new systems. It is hoped that more equitable, accessible, effective and affordable treatment, care and rehabilitation of individuals with substance use disorders can then be provided.
2. World Summit on Medical Education

In 1993, the World Summit on Medical Education proposed a series of recommendations for action to change the medical profession and the role of doctors as one of promoting health, preventing and treating disease, rehabilitating the disabled in a compassionate and ethical way (World Summit on Medical Education, 1993). The doctor "has also to be a better provider of primary care; communicator; critical thinker; motivated life-long learner; information specialist; practitioner of applied economics, sociology, anthropology, epidemiology and behavioural medicine; health team manager, and advocate for communities".

The recommendations from this Summit are given below:

1. There needs to be effective administrative and working relations between universities and the health services, including health care organizations and communities, in order to achieve coherent interactions between education and practice;

2. Ministries of Health and Education, training institutions, and representatives with a public perspective should carefully link their policies and programmes to ensure coherence in the production and utilization of trained staff. In societies where formal national health workforce plans do not exist, it will be necessary to develop agreed approaches in training institutions and user groups in sensitive determination of needs;

3. Medical schools must become more involved in health system development as well as staff training. Research into services and teaching in service settings will expose students to alternative models and possibly create patterns of health care in which they will more readily choose to work;

4. Policies must be formulated policies based on the epidemiological and financial realities of the country with attention to enhancing the status of the primary care doctor;

5. Health sciences institutions should study and teach relevant aspects of health transitions, enabling graduates to anticipate, recognize and respond to significant demographic, epidemiological and behavioural phenomena affecting the populations they serve, and providing relevant care in terms of health promotion, prevention, cure and rehabilitation to the patients they treat and the communities they serve;

6. Broaden and deepen medical education to extend into the area of prevention, public health, ethics, social sciences, health promotion, communication, longitudinal management, infectious disease, human sexuality and human rights. Ensure that students actively follow ambulatory patients with AIDS and other chronic diseases through the various stages of their illness, including ambulatory care, for a sufficient length of time;

7. Institutional behaviour of medical schools needs further study, with special attention to the formulation and implementation of their mission. At the same time, medical faculties should create teams from different disciplines to design and implement programmes of general medical education that are more responsive to local needs;

8. Medical school admission procedures should be based on institutional mission and capacity, and national health workforce targets. The principles of selection should be clear, equitable and valid. Medical schools should design admission criteria that address both academic and non-intellectual characteristics, such as social commitment and minority status. Attitudinal assessment techniques should be studied in every medical school for validity in identifying the necessary non-cognitive qualities of would-be entrants;
9. Medical schools should institute programmes to enhance the teaching expertise and communicative ability of their staff. Moreover, medical teachers should be required to improve the educational process. Teachers should be selected, promoted and rewarded, in part, according to teaching ability and contribution to educational development. Monitoring the teacher's performance, including input from students, should be used further to improve teaching.

10. Students should be valued partners at every level of medical education: planning of objectives, medical school governance, curriculum, teaching, and evaluation.

11. The methods of science are essential to defining problems and measuring the impact of intervention in the care of both patients and communities. Therefore, schools must emphasize the scientific approach when imparting learning skills. They must consider departmental reconstruction which promotes horizontal and vertical integration of biomedical science and also the behavioural and social sciences in clinical and community health disciplines. They must emphasize economic, statistical, managerial and informational sciences as relevant to clinical work.

12. Ethics should always receive full attention in the medical school, in all clinical encounters, and in the community. Consultative groups should continually explore ethical principles in relation to the different cultural groups, and devise appropriate curricular models.

13. Educational institutions and associations should encourage active methods of learning which are student-centred and promote the organization of national and regional networks for the production of appropriate and relevant learning materials. Learning strategies should be competency-based and accord with the local needs of health staff. Validation studies of assessment techniques and evaluation of innovations in the curriculum are required.

14. Working Groups at international and regional levels should consider reviewing representative curricula. Examples include those based on systems teaching; or problem based learning; or "core and options", with key modules, such as ethics or primary health care. A carefully sequenced core curriculum supplemented by special study modules holds promise, particularly if it promotes self-directed learning. The core emphasizes foundation, such as critical thinking and communications and interview skills, irrespective of a trainee's future career path. Curricular options provide in-depth learning according to specific interests and needs.

15. There is need for a holistic view in planning for the broad fields of postgraduate education, with policy-making mechanisms that can support production of balanced numbers of generalists and specialists. The postgraduate training programmes need to be carefully related to the local context in which they will be practised, and linked with undergraduate and continuing educational programmes.

16. As CME (Changing Medical Education) depends highly on learner motivation, self-directed learning skills must be mastered in under- and postgraduate education. The content of CME must be responsive to the needs of the practitioners with both professional and public input. CME needs thoughtful education planning including: objectives, strategies, skills and assessment. International CME networks and resource centres are needed for sharing and support. Countries must allocate funds for, and monitor, the overall process and outcome.

17. Multi-professional education, where members of different health professions are trained together, establishes and enhances the ethos of teamwork, and the essential collaboration of medicine with allied health personnel.

18. The many projects and the growing literature on community participation in health and development needs to be embraced by all educational institutions. The community-based process will transform
the community’s range of choices. Participation of communities in medical education and in institutional administrative decisions is now essential;

19. Medical schools should identify how to improve communication skills in all future doctors. Methods should include observation of and participation in various communication activities, especially patient interviews and case presentations; and involve written and spoken communication with the public, the different communities, varying cultures, and the media. Teaching staff should be appointed who are competent, to ensure the promotion of such communication skills;

20. Problem-based learning in the community will confront students with real demands for participation on the part of patients and the public. Caring for patients with AIDS or other chronic conditions demands that the student learn how to involve them as partners. Consultative groups reviewing health manpower policy should include adequate community representation;

21. Various environments, both medical and non-medical (workplace, schools, villages, households) will expose students to a more realistic array of health problems, human conditions, and professional role models, to enlarge and enrich their hospital experience;

22. Regardless of an institution’s mission, interests, or location, its effectiveness is enhanced by an explicit commitment to the health of a defined population and the supporting health care system;

Given these recommendations, it is clear that isolated changes in health professional education and training on substance use and related problems will not be effective if they occur in the context of traditional views about medical education, and the role of specialists and generalists in primary care in general. It is crucial to realize the difficulties in implementing such a process of change, in order to assure the success of any significant changes in the education and training on substance use disorders.
3. Health Professional Education on Psychoactive Substance Use and Related Disorders

Although psychoactive substance use has occurred since ancient times, this phenomenon never had the proportions seen today around the world. Substance use problems go far beyond the individual to affect families and communities, and it has become, in most countries, a public health problem which needs an immediate response.

While levels of illicit drug use in many developed countries remained stable or actually declined over a number of years, this general trend now appears to be changing. The trend is towards an increase in the use of illicit substances, accompanied by lower ages of initiation into drug use. Free markets, free trade and improved communication have resulted in a considerable worldwide increase in the production and consumption of psychoactive substances, and therefore in their adverse consequences to health.

In addition, changes in attitudes and use patterns have been further hastened by the processes of uncontrolled urbanization, migration, marginalization, breakdown of joint families, community disorganization and poverty, and changes in religious and cultural practices.

A further trend is towards the use of multiple substances, new substances, changing from one to another, and use in various combinations and routes of administration. Intoxication, poisoning and overdoses are increasing as a result. Women are increasingly using more psychoactive substances, and because they are physiologically more vulnerable, they may have more health problems at an earlier stage and can, if heavy drug use occurs during pregnancy, damage their fetus.

It is estimated that approximately 15 million people worldwide incur a significant risk to their health as a result of using illicit drugs. It is further estimated that one third of these users inject them, leading to 100,000 to 200,000 injecting-related deaths per year worldwide. In 1995, injecting drug use was reported in over 118 countries in all regions of the world. HIV transmission associated with intravenous drug use was reported in at least 80 of those countries.

Many developing countries have seen rapid increases in the use of opiates, cocaine and other psychoactive drugs, and resulting problems therefrom. In a number of these countries, drug injecting is becoming common, and associated with this is the sharing of injecting equipment which carries the risk of infection from HIV, Hepatitis B and C and other blood-borne infections.

Worldwide, the intentional inhalation of volatile solvents and other inhalants is an increasing problem, especially in marginalized groups including street children and indigenous young people. The harm they cause includes neurological and psychological dysfunction, liver and kidney damage, and sudden death. In the United Kingdom, more deaths have been attributed to volatile solvent use than to cocaine and heroin overdoses. Japan has reported several cases of brain damage due to the chronic use of volatile solvents.

Some psychoactive products including benzodiazepines, amphetamines and other stimulants are commonly abused in both developed and developing countries. Stimulants such as MDMA ("Ecstasy") and amphetamines, are used in several countries by adolescents in dance scenes (raves, dance parties), in a harmful way, leading to dehydration and sometimes fatal hyperthermia. In other countries, practitioners continue to prescribe amphetamines for weight loss purposes, at a time when the majority of countries have banned such therapeutic use because it has been proven to be ineffective. These substances are usually prescribed in high doses which may lead to dependence and other serious physical problems.

However, the two substances which are the major causes of disease and disability among all psychoactive substances are alcohol and tobacco. Tobacco use was responsible for three million deaths in 1990, two million of which occurred in developed countries and one million in developing countries. If current
smoking patterns persist, in 30 to 40 years the annual toll from the tobacco pandemic will rise to 8.4 million deaths a year. It can be expected that the developing countries’ share in the overall mortality burden will increase sevenfold, from one million at present, to six million deaths a year by the 2020s or 2030s. Nicotine has been clearly recognized as addictive and tobacco dependence has been classified as a mental and behavioural disorder according to WHO’s International Classification of Diseases, ICD-10. Tobacco dependence is a serious public health problem which warrants careful attention if the epidemic of tobacco-related mortality and morbidity is to be reduced.

Brief interventions and effective pharmacological treatments for these substance use problems are available, and yet these are not known or practised by most health professionals.

Alcohol is another major public health problem in many parts of the world. Even when allowing for the coronary protective effects of alcohol, roughly three quarters of a million deaths each year are caused by alcohol dependence. Other alcohol related problems are significantly increasing in rapidly changing societies. Problems caused by alcohol use go far beyond affecting the individual drinker alone to affecting society as a whole. These include accidents, trauma, violence, crime, unsafe sexual activities and other risky behaviours, work absenteeism, family problems and child abuse.

Physical and mental problems include liver cirrhosis, hypertension, psychosis and Wernicke Korsakoff disease which are a concern in many countries. Young people can be particularly vulnerable to acute effects because of their lower tolerance to alcohol, their lack of experience with drinking, and their more hazardous patterns of drinking which include episodic heavy drinking in high risk situations.

Brief and early interventions for alcohol problems have also proven to be effective in primary care settings. However, health professionals do not have the skills to assess or intervene with their patients when they present with less severe alcohol problems. Only when dependence is severe and evident is it diagnosed, and professionals often refer those cases to specialists because they feel the lack of skills or confidence to deal with more difficult situations. The population at large suffers, in not continuing to receive the quality of care that they need.

Traditional curricula on psychoactive substance uses tend to concentrate on the mechanisms of action of these substances in the Central Nervous System, effects of acute and chronic doses on physiological functions and the dependence syndrome as the "end of the line" problem resulting from the repetitive use of these drugs. The environmental factors related to substance use, the influence of policies, attitudes towards users of illicit substances, economic and social changes, poverty, the role of prevention and the need for effective treatment, among many other issues, were neglected from the core curriculum. As a result, substance use disorders were viewed as the simple result of the interaction between the individual and the substance.

Training which is provided in hospital settings only gives a skewed view of the reality of the population and the individual problems related to substance use, which are often not seen in daily practice in primary care settings. Less severe problems, which could be effectively treated, continue to progress without notice by health professionals, and the patient is left without proper advice and care during a stage when a better prognosis could be achieved.

Health professionals play a key role in the identification, assessment and management of alcohol and drug related problems of the community. However, a number of constraints separate the physician/nurse from the needy patient. They often feel inadequate or incompetent about treating and counselling alcohol and drug users. They often lack the skills and knowledge to make a correct diagnosis and give appropriate advice. Negative attitudes towards psychoactive substance users also contribute to denial of the patient, who does not want to expose his/her problems because he/she could be marginalized or rejected by the health professional. Sometimes health professionals have problems with their own use of psychoactive substances, which are not recognized and interfere with their clinical practice.
Education and practical experience are effective ways of providing the knowledge and skills needed to assess and care for substance users. Education can also produce positive changes in attitudes towards substance users by providing a better understanding of their problems and needs.

Against this background, it is pivotal that the health professional receives adequate education and training on substance use and related disorders in order to promote better health care delivery for the whole community. However, clinical programmes in teaching settings do not provide an adequate base for training on substance use disorders. The programme curricula is not geared to produce quality training in the area of substance use, there are very few general medical educators or specialists available to provide adequate role models, and the overall structure of medical institutions mitigates against adequate training as well.

Changes in health professional education on substance use disorders should be based on the same general principles recommended by WHO regarding medical education:

a) Education of health professionals should be community-based and population-based, with a special concern for the patient, family and community;

b) Educational activities for health personnel should include appropriate experience in the university and its referral hospital, communities and other health care facilities so as to provide a balanced perspective of health system functions;

c) The education of health professionals should focus on the bio-psycho-social aspects of health and illness of the patient, family and community, and should take place in the community itself to the extent feasible;

d) In addition to the traditional content of the medical curriculum, competence in epidemiology, data collection and analysis, informatics, leadership in planning and management, economics and behavioural sciences, together with health services research theory and techniques, is needed for effective planning and monitoring of health care delivery;

e) Ethics should be emphasized in education and practice in relation to both patient and community care;

f) The education of health professionals should not be limited to basic educational preparation or to specialty/sub-specialty training, but should extend throughout their professional lives; and

g) Research is a necessary component of the development of education of health personnel.
4. Response of the WHO Programme on Substance Abuse

In 1988, WHO sponsored an international survey of medical experts in 20 countries to focus on post-graduate training for specialists in alcohol and drug issues. Returns from this survey showed that three-fourths of the respondents rated the need for specialists in addiction as very high. Nearly 90 per cent indicated that they were not satisfied with the current availability of specialists relative to needs. The majority were interested in the possibility of a project to aid in developing physician expertise, and 83 per cent indicated that such a project could have value for other health professionals. Finally, 90 per cent of experts surveyed indicated the need for establishing a communications network with other educators of medical specialists.

In 1990, a WHO meeting on an International Programme on Medical Education in Substance Abuse was convened in New York, at the World Health Organization Liaison Office, co-sponsored by the New York University-Nathan Smith Kline Institute, a WHO Collaborating Centre. During that meeting, a series of problems characterizing the difficulties facing medical educators internationally in developing and enhancing their initiatives in the addiction field were discussed, and recommendations for an international programme on medical education were made. These included:

- the advocacy and promotion of the development of substance use as an important, high-priority field in the medical schools and in the medical profession worldwide;
- faculty development is central to the training of medical students and residents. It is the key for sustained change in medical education because it provides role models for continuing training;
- the recognition and validity of physician training in the area of substance use disorders;
- students and residents must be exposed to a wide range of problems and opportunities, including contact with successfully treated patients, and with experienced clinical staff;
- the importance of social factors in alcohol and drug dependence needs to be more emphasized, together with appreciation of the roles of family and community support groups in the recovery process;
- medical training should be community oriented, multidisciplinary, and the curriculum be problem-based;
- successful training outcome is a result of learning experiences from patients, planned and organized learning, adequacy of teacher role model and of the institutional setting;
- the development and implementation of academic clinical modules for the more effective clinical training;
- the incorporation of public health modules for more effective preparation of health professionals to respond to the community needs, especially when working in primary health settings;
- the development and implementation of standards for clinical practice in medicine and other health professions in the area of substance use disorders;
- the development of means for continuing international communication on substance abuse medical education;
- dissemination and adaptation of successful approaches to treatment and teaching on substance use disorders;
- the development of a curriculum outline representing the consensus of teaching authorities on the minimum knowledge, skills and attitudes necessary for effective clinical practice in substance use disorders; and
- dissemination and adaptation of curriculum materials, guidelines for teaching, standards for training settings, and courses at the undergraduate, graduate and postgraduate levels.

In 1993, the Working Group on Medical Education in Addiction met again, this time in Rio de Janeiro, Brazil, during the World Psychiatric Association Congress. The purpose of the meeting was to develop a proposal for an international project to improve advanced medical education and related technology transfer in addiction.

A WHO meeting was held in November 1994 in New York with professional representatives from 12 countries. The purpose of the meeting was to discuss the main problems in each country in the dissemination of effective treatment skills and the results of treatment research to graduate physicians, and new initiatives that might be pursued in this area. A summary of each country report is given below.
5. 1994 Perspectives from Different National Settings

ARGENTINA

Author: Dr Amelia Musacchio de Zan

Problems: There is a lack of coordination between the different organizations which handle postgraduate medical education, such as governmental and nongovernmental entities, non-university and national and private university courses. In time, these efforts should become better integrated. There are, however, excellent videos prepared by the Secretary for Programming the Drug Addiction Prevention and Fight Against Narcotraffic of Argentina, and other videos, such as the Straight Programme, a video from the USA, that are used in some pre- and postgraduate courses as well as in courses by medical societies and associations. Nevertheless, more contact and exchanges between teaching and working institutions is needed.

Initiatives: Addiction treatment is taught in the Psychiatric Specialist Career and in postgraduate courses in the School of Medicine of the University of Buenos Aires. It is also taught in the National Universities of Cordoba, Mendoza, La Plata, etc., in addition to the Psychiatric Specialist Career of the Catholic University and the University del Salvador. The Secretary for Programming the Drug Addiction Prevention and Fight Against Narcotraffic is currently working on a Masters programme in the area with the School of Medicine of the University del Litoral, the School of Pharmacy and Biochemistry of the University of Tucuman, and with the School of Medicine of the University of Cuyo (Mendoza). The Catholic University of Salta and the "Gendarmeria Nacional" (Frontier Guards) also have Mastership programmes on this subject. There are also tutorships in the therapeutical communities for physicians who intend to have a speciality in this area.

Plans: All Psychiatry Specialist Postgraduate Careers in the country have developed in different fashions according to their own programme. At some universities there is a need for additional specialists with clinical experience, for example at the School of Medicine of the University of Buenos Aires. Special seminars introducing the subject and describing the physicians' expertise in the field are being planned. The School of Medicine has presented plans for a "Master of Pharmacodependency" for doctors and other professionals which is subject for approval by the University of Buenos Aires. There is at the present time a great interest in having such a programme among professionals in the area. Another area of interest would be to integrate the knowledge to be imparted in the schools of medicine to the different universities in the country.

CANADA

Author: Dr Claudio Naranjo

Problems: There is no specific mechanism for disseminating results of treatment research. Results are communicated in national and international meetings. However, it is well known that special efforts are required to decrease the time lag between the discovery of a new treatment and widespread acceptance and application.

Initiatives: The system is in crisis since the training programme in Addictive Medicine at the University of Toronto is no longer operational. This was the best structured and influential programme. In Canada, however, efforts by other groups are still influencing a small number of postgraduate physicians. Among those important to mention are: CME courses, specialized rotations and articles published in the Canadian Journal for Clinical Pharmacology which reaches 24 000 Canadian physicians.
Plans: The current climate for disseminating treatment research in Canada is difficult. However, some initiatives by groups of academic physicians are as follows:

- publishing a series of articles on diagnosis and treatment of substance use disorders in the Canadian Journal of Clinical Pharmacology (circulation 24,000 copies, published quarterly);
- the publication of a book on the clinical pharmacology of drug dependence to appear in 1996;
- a Newsletter (quarterly on the pharmacotherapy of drug dependence);

Problems:

- Institutions such as the Addiction Research Foundation are no longer sponsoring efforts to educate physicians at the undergraduate or postgraduate level.

GERMANY

Author: Dr Michael Krausz

Problems: A major problem in Germany is that there are separate treatment systems for psychiatry and addiction treatment. In inpatient facilities, there is a strong division between "normal" psychiatric patients and "addicts". Therefore, there is a lack of discussion about different treatment experiences and co-existing treatment philosophies. Moreover, the health insurance system pays for some parts of treatment (detoxification, psychiatric emergencies, etc), while other parts are covered by the German "Rentenversicherung." A second problem is the lack of interest in treating addicts as well as a general lack of treatment research. Recently, however there has been an increased interest in drug addiction related to HIV but addicts still remain the unloved children of psychiatry and medicine in Germany. The third problem is the lack of a systematic approach to substance use problems by the health authorities. There are a few exceptions, however, such as the annual meeting of the German Office Against Addiction Problems. Finally, there remains ideological obstacles when discussing substitution and drug addiction treatment. For political reasons, treatment strategies are generally not discussed.

Initiatives: Most initiatives take place inside the hospitals or specialized treatment facilities and are based upon their special needs and knowledge. Often, it is a common programme for all professionals in the field, not a specialized medical education. Local activities, however, are often arranged by a special organization of physicians called "Ärztekammern," which plays an important role in postgraduate education in Germany. These training courses provide specialized curricula on problems of substitution, drug addiction, intoxication, etc. Other initiatives include national societies of physicians working in the field of addiction. Within these organizations there are discussions on specialized training programmes for postgraduate physicians. Overall, initiatives in this field are not well organized but they are beginning to develop.

Plans: A group in Hamburg is organizing special semi-annual workshops focusing on clinical research. Beginning in 1995, the first workshop will take place in Hamburg with a focus on detoxification. One week training seminars focusing on strategies and techniques in addiction treatment are being prepared, to be given annually. The seminars are scheduled to begin in 1996. Finally, discussions on initiatives concerning a graduate training programme for physicians working in the field of addiction treatment have started.
GREECE

Author: Dr Anna Kokkevi

Problems: Drug use in Greece made its appearance as a public health problem in the late 1970s and the early 1980s. The first specialized services for the treatment of drug addiction were established in 1982 and expanded gradually since then, mainly in the two largest urban areas, Athens and Salonika. Urgent needs of specialized personnel for treatment services were mostly covered through fellowship programmes that enabled a limited number of psychiatrists and other professionals, mainly from the field of social sciences, to visit and acquire experience from treatment centres in other European countries. In-service training sessions are organized by the treatment centres for new personnel. Although the need for training physicians in the field of drug addiction has grown significantly in the last few years, formal and systematic training within the universities or in other institutions is still lacking. However, several teaching hours exist on drug abuse and dependence in the Departments of Pharmacology, Forensic Medicine and Psychiatry.

In conclusion, the main constraints in promoting training and disseminating results of treatment research to graduate physicians in Greece is summarized as follows: (a) the very limited treatment research in the field of addictions in this country, (b) the limited number of professionals with adequate expertise, (c) the lack of the education system to assimilate new items into the curriculum, and (d) the lack of financial resources.

Initiatives: The Department of Psychiatry of the Athens University Medical School has recently introduced a series of courses (10 hours) on addictions into the curriculum of postgraduate students specializing in psychiatry. Additionally, two hour sessions are included in the curriculum where results from addiction research projects undertaken by the Department of Psychiatry are presented. Visits to addiction treatment services are also included in the curriculum.

Plans: Recently, the Ministry of Health has approached the University Mental Health Research Institute (annexed to the Department of Psychiatry of the Athens University Medical School), with a request to undertake the organization of an educational institute on addiction prevention. The scope of the institute is to fill the needs existing in the training of professionals, including physicians, who work or will be working in the field of drug use prevention. The institute is scheduled to start functioning in January 1995. The establishment of this institute will hopefully promote appropriate skills and expertise among professionals in prevention, treatment, and research in the field of addictions.

HOLLAND

Author: Peter Geerlings

Problems: Principal problems in disseminating treatment skills for physicians include the following:

- Attitudinal: There exists a stereotyped view of patients with addictive disorders. For example, alcohol dependence is under-diagnosed; only 15 per cent are diagnosed by general practitioners upon initial examination and usually for other reasons.

- Conceptual: Most physicians do not feel responsible for the treatment of patients with alcohol or drug dependence. Patients with addictive disorders are treated in specialized treatment centres for alcohol and drug dependence.

- There exists a lack of skills in the diagnostic interviewing of patients with addictive disorders as well as a lack of brief intervention technique skills.

- Postgraduate training is voluntary in the Netherlands. Physicians do not need postgraduate training in order to keep their licence. Subsequently, there is a lack of interest by general practitioners to
attend training courses on alcohol and drug dependence. Therefore, physicians who work in the field of dependence attend little training.

Initiatives:

- The Dutch Institute for General Practitioners developed a standard for the diagnosis and treatment of alcohol problems.
- There is more training in addictive disorders in postgraduate courses for physicians, especially for psychiatrists and general practitioners.
- New specialized training for general practitioners allows a physician to work for four months in a specialized addiction treatment centre.
- As part of the curricula, postgraduate psychiatrists work for six months in specialized addiction treatment centres.

Plans:

- Develop treatment manuals for physicians working in addictive disorders.
- Introduce training courses for physicians on brief interventions for addictive disorders.
- Use computer programmes (Skinner) to aid physicians in the use of brief interventions.
- Evaluate the effectiveness of the computer programmes for brief interventions.

HONG KONG

Author: Dr James M.N. Ch'ien

Problems: In Hong Kong, the field of substance abuse (including psychoactive substance dependence and disorders) has not yet been recognized as a specialty in medicine. Few of the physicians employed by the government at the Methadone Clinics operated by the Department of Health or the Drug Addiction Treatment Centres of the Department of Corrections, consider themselves career professionals with a mission in enhancing substance abuse research and treatment methodology. Those employed by the non-government organizations are either retired government physicians, or private practitioners working on a part-time basis. Therefore, the interest in postgraduate medical education on substance abuse is rather limited. Neither of the two existing Medical Schools (the University of Hong Kong and the Chinese University of Hong Kong) has offered such postgraduate courses so far.

Initiatives: In the past academic year (1993-94), the School of Professional & Continuing Education (SPACE) of Hong Kong University, and the Hong Kong Council of Social Service (HKCSS) jointly organized a part-time certificate course in Multi-Disciplinary Education in Drug Abuse Prevention & Rehabilitation, which attracted the active participation of nursing practitioners, clinical psychologists, social workers, teachers and even policy officers but sadly, no physicians. With the author of this section serving as the course Director, and two experienced clinicians well known in both in-patient and out-patient treatment, as well as other specialists in pharmacology, epidemiology, rehabilitation, education and legal issues as lecturers, the outcome of the course evaluation was highly encouraging. However, without the participation of any physicians, the purpose of promoting teamwork could not be fulfilled completely. The Chinese University, Department of Psychiatry, organized in conjunction with WHO and UNDCP an interdisciplinary training course on the Prevention of Drug Abuse & HIV Infection from 1-20 August 1994, which was attended by 17 professionals from China (including 11 physicians, two pharmacologists, three
administrators and a researcher), four from Hong Kong (i.e., nursing officer, auxiliary medical service, social worker and drug counsellor) and two from Macau (a social worker and an educator). We had a strong interdisciplinary faculty, but regrettably no local physician participation.

**Plans:** The SPACE course was recently reviewed and it will be introduced in early 1995 with five consecutive modules (i.e., Pharmacology & Toxicology, Clinical and Public Health Issues, Rehabilitation & Social Reintegration, Prevention & Education, Legislation and Social Policy), which can be taken selectively or one after another. This arrangement should allow physicians to enroll in any or all of the modules at their discretion, instead of the previous practice of whole course enrollment which required part-time attendance for a duration of one full year. The Department of Psychiatry of the Chinese University Medical School is considering establishing a Centre on Substance Abuse to promote research and postgraduate studies which hopefully would be affiliated with WHO in due course.

**INDIA**

**Author:** Dr Davinder Mohan

**Problems:** India is a Federal Union of States. Health issues, therefore, are subject to both federal and state actions and legislation. The federal government organizes and supports selected national programmes (e.g., malaria, waterborne disorders, leprosy, tuberculosis, AIDS) and drug dependence programmes have been a recent addition. The federal government also organizes and funds national medical training (e.g., population studies, family planning) and research institutes (e.g., the All India Institute of Medical Sciences, National Institute of Communicable Disease, National Institute of Virology). There are approximately 120 medical schools operated by state governments, whose curricula are determined and monitored by the Medical Council of India. Providing drug dependent programmes is the responsibility of the state government. But there are no built-in provisions for disseminating and imparting skills in substance abuse disorders to graduate physicians. In recognizing the emergent need, however, the federal government has funded a three-week training programme for improving the skills and knowledge of in-service professionals.

**Initiatives:** The following initiatives are in the approval stage. They are aimed at providing a one-year course on addictive behaviours leading to a Master of Sciences (M.Sc.) degree. This course will be open to all health professionals both in the government and non-government sectors.

The current ongoing initiative is the training of in-service medical officers in screening, referral, and management of dependent substance abusers. A three-week training course is offered which includes both lectures and clinical experience. The course was started in order to utilize and optimize the knowledge and skills of existing health care providers at the district or primary health care (PHC) level. The Ministry of Health has 360 districts and approximately 2 000 PHC Centres in the country. Approximately 200 000 families receive treatment at the PHC centres. Under the current Ministry of Health, initiatives implemented through the centres should provide services, with the Layer Chromatography Technique Laboratory Services, to approximately 1000 district and PHC level physicians and paramedical staff. Norms have been developed for 10-, 20- and 30-bed addiction units for the country.

**ITALY**

**Author:** Dr Enrico Tempesta

**Problems:** In the last decade, the involvement of physicians in Italy in the treatment of drug addiction has been related to the continuous evolution in the Ministry of Health’s policy, which is a result of periodic adjustments to the legal framework. Therapeutic intervention by physicians is carried out almost exclusively, within the territorial Drug Dependence Treatment Units and supported, bureaucratically and financially, by the National Health System. The main problems in implementing physicians’ skills on drug treatment are;
• the absence of specific credits for drug abuse treatment in medical school curricula which results in a lack of basic knowledge by graduate physicians;

• the absence of specific postgraduate courses or specialties at the Medical School level for training physicians who will work in the Drug Dependence Units, within the National Health System;

• the reluctance of the medical body in considering drug dependence as a medical problem and thereby realizing the need to use scientific methodology in developing and evaluating therapeutic interventions;

• the low level of attention and financial support given by local health units to drug dependence services, compared with other medical disciplines;

• the dys-homogeneity in treatment philosophy and policy of the local and regional governments, swaying between the prevalent psychosocial approach, and a pharmacological one; and

• the high level of the turnover of medical staff in drug dependence services (physicians are often looking for better positions).

Initiatives: Training courses for medical staff working in the field of addiction are carried out at regional or local levels, promoted by regional or city governments, or by medical associations. The characteristics of these courses are:

• short duration, there is a lack of continuity in the training process;

• didactic training;

• generic, not specific enough for physicians, the same courses are given to other professionals (e.g., psychologists, social workers, etc.);

• not research-oriented; and

• only a few regions are involved in a well designed and permanent training programme.

Plans: The identification of a specific postgraduate training programme in addiction which includes:

• common curricula which reflect the multi-discipline of the field;

• homogeneous methodology of training for treatment and clinical research; and

• implementation and integration of common plans for basic and clinical research and training programmes among different countries.

POLAND

Author: Dr Tadeusz Leslaw Chrusciel

Problems: The principal problems concerning the dissemination of effective treatment skills are: lack of funding for treatment and rehabilitation centres, lack of continuous education for personnel, and insufficient contacts with more experienced foreign centres and research institutions. Foreign financing of multi-centre research on evaluation of treatment and rehabilitation outcome is badly needed. It has not been undertaken at the country level by any of the units involved. Moreover, the high number of HIV drug users complicates research.
Dissemination of treatment research to graduate physicians is through scientific journals, however, research data is scarce.

**Initiatives:** In postgraduate medical education, several courses on clinical pharmacology of drug dependence are offered annually by the Department of Clinical and Social Pharmacology of the Postgraduate Medical Education Centre in Warsaw, and by the Institute of Psychiatry and Neurology in Warsaw. Separate courses are offered for psychiatrists, general practitioners, psychologists and therapists. Moreover, there is a close collaboration with the WHO European Office of Addiction Behaviour of St. Georges’ Hospital in London. Special Polish-British collaborative courses are offered one to two times annually with the participation of WHO experts and British staff. A special conference on methadone maintenance programmes was held with US medical researchers in 1994. There is a need, however, for a new Polish textbook on the complex aspects of drug abuse. The most recent one, "Drug Dependencies," ed. by P. Kubilowski, W. Wardaszko, and sc. ed. T. L. Chrusciel, was published in 1978 and much has changed since then.

**Plans:** It would be important to organize evaluative trials, further develop educational programmes with the participation of foreign lecturers, and to prepare internationally acceptable criteria for evaluation of treatment outcome and rehabilitation services and programmes.

**SWEDEN**

**Author: Professor Ulf Rydberg**

**Problems:** In Sweden, chairs for teaching are available in medical schools in Stockholm and Malmo, but not in Uppsala, Umea, Goteborg or Lund. Thus, the knowledge and the interest in the field varies greatly between different cities. In general, however, the attitudes towards this training have changed over the past 20 years. In 1972, for example, students in general showed a lack of interest in the field. In 1983, however, courses on alcohol and drug dependence became mandatory at the Karolinska Institute with four courses a year, and students have since become more interested. The programme at the Institute currently offers one week of lectures and seminars, and one week of intense clinical training with the use of video, etc. The programme also offers one to two student led seminars and a written (in a few cases oral) examination. Together with the Department of Medical Education, we evaluated and compared the training in Stockholm and in Uppsala with a five year follow-up. In addition, we have arranged a meeting for the five Nordic countries to compare experiences. In fact, there are not many problems, and most of the development has been very positive.

**Initiatives:**

- for future specialists of psychiatry, courses in alcohol and drug dependence are offered annually, but are not mandatory;
- a considerable number of papers and textbooks are recommended for studies;
- a psychologist (Ph.D., associate professor of clinical psychology) trains specialists on attitudes and interview techniques. Other topics covered include: the female alcoholic, drug addiction, abuse in medical professionals, recently introduced laws, etc;
- the section on Alcohol and Drug Dependence of the Swedish Society of Medical Sciences (about 200 members) holds annual meetings with posters and lectures;
- in the cities which house universities, a series of seminars are given on various levels;
the Swedish Society for Alcohol and Drug Addiction Research offers annual national meetings (this year the topic is Alcohol and Women; guest lecturer Dr Sharon Wilsnack) and local meetings. For example, in the Stockholm area, a workshop is offered on the methodology of diagnosis, questionnaires and chemical markers, as well as cost-effectiveness aspects of diagnostic methods.

Plans: One important initiative is the publication of a textbook on alcohol and drug dependence entitled "Beroendelara," Eds., Professor Mats Berglund, Malmo and Professor Ulf Rydberg, Stockholm. The textbook contains 35 chapters and has 220 pages. Publication is planned for December 1994. The textbook will hopefully become mandatory for medical students in all six universities and will considerably standardize and increase the level of basic education for medical students.

Conferences have been held in Umea and Stockholm regarding training in alcohol and drug dependence for social workers and nurses and this training will continue. The outcome of these conferences became a textbook on alcohol and drug dependence for social workers. This collaboration will continue during the Spring of 1995.

UNITED KINGDOM

Authors: Dr Hugh Williams and Dr A. Hamid Ghodsie

Problems: All doctors, regardless of their speciality, are likely to have contact with patients who misuse drugs. In the United Kingdom graduate physicians, especially hospital doctors and general practitioners, have in the past been reluctant to become involved in the care of patients with substance misuse problems. Drug abusers have been described as unpopular or undesirable patients who are especially difficult to manage and who are beyond the competence of many doctors to treat (Glanz, 1986). There is no doubt that some of this reluctance, lack of confidence and competence in treatment skills on the part of doctors is a result of inadequate medical education (Richards, 1988). In the past, albeit with some notable exceptions, there had been little or no formal teaching on substance misuse in the medical school curriculum or indeed in postgraduate medical programmes (e.g., general practitioner training schemes). With the increasing prevalence of substance misuse, it is important that all professionals coming into contact with drug users should be sufficiently trained to intervene in an informed, effective and confident way (Home Office, 1990).

Initiatives: A variety of bodies and organizations are involved in research and dissemination of information on addiction treatment at a postgraduate medical level in the United Kingdom. The following is not an exhaustive or complete list of all such educational and training activities, the limitation of space means that only a few important examples can be mentioned. In recognition of the increasing role that all doctors have to play in the prevention and clinical management of drug misuse the Department of Health (DoH) produced "Drug misuse and dependence, Guidelines on clinical management" (DoH, 1991) which was "written by doctors for doctors in general" and was widely circulated within the medical profession. The Society for the Study of Addiction to Alcohol and Other Drugs, which has an international membership of medical practitioners (and other professionals), has done much to promote communication and the spread of treatment research via scientific meetings, conferences seminars and by means of its journal "Addiction." The Institute for the Study of Drug Dependence in London is an independent information service and reference library and provides a valuable and extensive resource of up-to-date research and educational material. Nationally, the Royal College of Psychiatrists is the leading body concerned with initiation, organization and evaluation of postgraduate medical training in the addictions; substance misuse being one of the important sub-specialties within the discipline of psychiatry. Psychiatric trainees receive training in substance misuse both during their general professional training (leading to membership of the college) and also during their period of higher professional (post membership) training. Furthermore, as part of its general programme of continued, personal development (continued medical education) for all consultant psychiatrists, the College has included specific workshops on treatment approaches in substance misuse. To a lesser degree, other academic professional bodies responsible for training within their own specialty (e.g.,
the Royal College of Physicians, Royal College of General Practitioners), have recognized the importance of education in substance misuse for their members. The Division of Addictive Behaviour at St. George's Hospital Medical School in London offers the most extensive range of courses in substance misuse for graduate doctors in the country. Two diploma courses for graduate physicians, which are unique within the UK and Europe, have been pioneered by the Division of Addictive Behaviour. A well-established postgraduate diploma course for general practitioners offers comprehensive academic and treatment skills training in the addictions as applied to the primary health care setting. A similar course specifically designed to meet the needs of the prison health care service is available to prison medical officers. A third multidisciplinary diploma course for specialist drug, alcohol and HIV workers is suitable for medical graduates from other backgrounds (e.g., psychiatrists, public health physicians, etc.). In addition, the Division of Addictive Behaviour established in 1993, the first MSc in Addictive Behaviour in this country. Since that time we are aware that at least two other MSc courses are in the process of being established in London and Belfast.

**Plans:** It is hoped that the initiatives shown by St. George's Hospital Medical School and a few other centres, in the design, delivery and evaluation of high quality postgraduate education and training, will subsequently be taken up more widely both in the United Kingdom in particular but also throughout Europe in general.


**UNITED STATES OF AMERICA**

**Author:** Dr Marc Galanter

**Problems:** A formal structure for training of specialists in addiction has been developed within the specialty of psychiatry, and in other disciplines like family practice and internal medicine. Each specialty needs access to new developments in the field, but there are a variety of systemic problems that affect dissemination:

- coordination between experts in treatment research and practitioners in the field is not always effective, as researchers are generally based at university medical centres and associated with relatively isolated academic programmes. Furthermore, although the time for addiction teaching in medical curricula has been expanded recently, these efforts are more commonly directed at diagnosis than effective management;

- priorities for the expansion of primary care may help with the management of many illnesses. Problems like addiction, which suffer from stigma and require specialized experience, however, may not be readily manageable by the general physician. In an era of cost-cutting, it will therefore be important to protect the training options of addiction specialists so that they can provide clinical consultation and expertise in programme development to the generalists;

- most addiction treatment programmes are oriented toward behavioural management and psychosocial treatments, but new pharmacotherapy options must be integrated into these programmes so as to introduce new agents under development. It is important that physicians with experience in both pharmacotherapy and behavioural management be available in treatment programmes to assure this;

**Initiatives:** A number of positive developments are now emerging:
- Certification procedures for addiction expertise have been developed by the American Board of Psychiatry and Neurology, and by the American Society of Addiction Medicine. This has provided encouragement to psychiatrists interested in obtaining postgraduate fellowship training, and to general physicians for continuing medical education;

- Fellowships in addiction psychiatry will be formulated by the Accreditation Council on General Medical Education. Coordination of these programmes already takes place through the National Medical Fellowship Centre (at New York University). These provide a formal structure within the established American medical education system for an additional year or two after the basic residency period for training in addiction. They assure training of a cadre of physicians to disseminate research findings;

- the National Institute on Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) have undertaken the development of new pharmacologic and behavioural therapies. These promise to provide the medical educator with an empirically-grounded basis for improving care, and effective matching of new treatments to those patients for whom they are most suitable;

- a postgraduate medical fellowship programme has been created and it is described in more detail in Annex 1.

Plans:

- Developing international collaboration through the WHO-NYU International Working Group will offer the United States the opportunity to disseminate new research findings worldwide, directed at demand reduction and more effective care. Furthermore, input from overseas sources will shed light on the appropriate tailoring of treatment to different subcultures in the United States.

- NIDA and NIAAA initiatives in the area of behavioural treatment should aid in developing complementary use of pharmacotherapy and behavioural modalities so as to increase the efficacy of both modalities.
6. WHO-PSA-NYU Meeting 1995

The last meeting on this topic was held in October 1995, in Washington DC, USA at the WHO Regional Office for Americas (AMRO) headquarters. Action plans for the next three years were developed by each of the representatives from six countries, and each represents a different approach aimed at responding to local needs, problems and impediments identified by the participants. The plans are briefly outlined below and can serve as examples for other settings in which substance use education is needed.

MOROCCO

Author: Dr Mehdi Paes

Problem: Substance use education is essentially theoretical and is not institutionalized or validated. Primary care physicians and nurses have insufficient training in this field and appear not to be interested in the problem.

Objective: The main goal is to enhance awareness, practical and theoretical knowledge in the area of drug abuse prevention and treatment among health professionals. This means integrating substance use prevention into the wider field of mental health programmes and within the primary health care field.

Impediments: There is an institutional inertia due to medical staff being exposed to a diversity of daily tasks and priorities, and a lack of continuous medical education. The lack of financial funds for specific programmes, a shortage of substance use prevention faculty to work in a structured and regular manner at a national level or state level, and a lack of appropriate teaching material.

Strategies:

1. Create a national committee on Substance Use Education composed of representatives of governmental and nongovernmental organizations.

2. Constitute a teaching body on Substance Use Education for a national action programme.

3. Develop a training curriculum on drug abuse for medical students, clinical psychologists, psychiatric and non-psychiatric nurses, residents in psychiatry, general practitioners and pharmacists.

4. Expand the scope of appropriate educational material.

5. Acquire books, documents and specialized journals.

6. Train resource personnel.

7. Implement a basic teaching programme on substance abuse at the School of Medicine and Pharmacology, the Department of Psychology, the School of Nursing and for psychiatry residents.

8. Implement a continuing Medical Education Programme for doctors in the primary health care setting.

9. Create a National Centre on Substance Abuse.

10. Improve cooperation with the national, international, governmental and nongovernmental agencies.

11. Pursue funding for various activities related to substance abuse education.
NGERIA

Author: Dr Michael Olatawura

Problem: The low priority given to the area of mental health explains the poor and inadequate facilities available for substance use harm reduction activities. When treatment is available, it has to be paid for privately. There are no detoxification programmes. Education directed at a broader range of health professionals can serve to promote and develop badly needed preventive substance abuse programmes.

Objective: Education which provides the knowledge and skills needed to assess and care for substance abuse users is lacking in the curriculum of Nigerian health professionals. An improved curriculum will help to ameliorate this problem. The number of hours of training needed will be ascertained from new graduates enrolled for their one year of National Service by administering questionnaires. They will be taught the skills and knowledge necessary for diagnosing substance abuse issues and will receive additional appropriate advice. During the last months of their assignment, the graduates will be interviewed and the information gathered will be disseminated to appropriate faculties, i.e., Nigerian Universities. The information gathered from these graduates should make a notable impact on curriculum change in relevant institutions.

Impediments: Health personnel, particularly doctors, are not interested in preventive programmes because they do not yield results as quickly as other programmes, i.e., the treatment of acute mental conditions. Education planners, especially in medical schools, believe the present curriculum of medical students is already overwhelming and do not feel that adding additional course work will be of benefit to the students. Presently, curriculum change takes place every four or five years. By contrast, the ministries of health place greater emphasis on communicable diseases than on other health problems. These two factors coupled, limit the level of knowledge and prevent positive changes in attitudes towards substance users.

Strategies:

1. Establish contact with the Secretariats of the National Youth Service Corps in the six states of the southwestern part of the country. Enlist the cooperation of research officers to get a list of "health professionals" deployed to the states.

2. Select and train resource persons to become health personnel trainers in the six states.

3. Train two groups of youth (fresh graduates) during the orientation course (November and March) and administer basic information questionnaires. Additionally, provide general support and supervision of youth.

4. Visit selected health centres in the six states to monitor field experience.

5. Collect questionnaires and prepare the report.

6. Disseminate the report to the Ministries of Education, and the health training institutions.

7. Assess with the Deans and Provosts of health educational institutions a possible curriculum change.
SPAIN

Author: Dr Xavier Ferrer Perez.

Problem: Non-specialized professionals from different health disciplines, i.e., medical staff, psychologists, nurses and others, receive inadequate training and are not skilled for early detection, diagnosis and treatment of drug dependent patients. This lack of training is even more evident in the area of substance abuse prevention. A recent study composed of a sample of 14 Spanish universities, found that 42 per cent of the practising professionals did not receive any drug abuse training during their undergraduate studies, and only 12 per cent of those who received training considered it sufficient. Also, 71 per cent of the faculty felt that improved training was needed on drug dependence related issues, with only one per cent considering the present training sufficient.

Objective: General objective: to improve drug abuse related training in graduate health study programmes.

Operational objectives:

1. To develop a detailed proposal for implementing drug abuse subjects into different curricula, which are to serve as good teaching practice models.

2. To facilitate participation and to establish links with the key players in university teaching, i.e., faculty and academic authorities.

3. To achieve in the short term some limited changes in the curricula and/or the teaching practice.

Impediments:

• The existing curricula is inflexible and resistant to change. Currently, there is an unstable transition period in the definition of new university curricula. (This, moreover, can also be used as an advantage as new curricula are being experimented with and are still subject to change).

• The university lacks centralized planning, thereby increasing the number of interlocutors for nationwide action.

• Training and faculty motivation, in general, is weak.

• There is a general lack of availability of models containing appropriate information in the area of substance use issues.

• A process of change in a structure as complex, rigid and slow as the university needs time, i.e., years of continued effort to achieve significant results.

• Students have not actively demanded improved training on drug issues, although most are very concerned about it.

Strategies:

1. Provide an update of recent changes to the university curricula.  
   TIMELINE (MONTHS)  
   2

2. Prepare a proposal on the curricula of different models for various disciplines included in the project.  
   6
3. For each discipline, meet with relevant academic authorities to provide them with feedback from the students, faculty and external drug experts on the current training situation. Additionally, ask them for suggestions to improve this situation.

4. Establish initial agreements and a joint workplan.

5. Make available to the partners examples of curricula and appropriate contents through an Internet Web Site.

6. Follow-up the implementation agreements reached during the intermediate periods, i.e., creating new subjects on drug issues, introducing contents on drug issues in already existing compulsory subjects, or offering complementary workshops.

7. Conduct periodical meetings with the Deans and/or Head of Studies to follow up the implementation of the workplan.

8. Evaluate the outcome, prepare and disseminate a final report.

SRI LANKA

Author: Dr Varuni de Silva

Problem: Drug use, in particular alcohol consumption, in Sri Lanka is increasing. Even when overt problems of dependence are not seen, the consequences in terms of nutrition, housing, maternal health, child survival and development, are huge. Hence, there is a need to train the medical profession in effective methods of substance use prevention.

Objective: Substance abuse education has not acknowledged the external factors which make drug use attractive and rewarding, but has tried to "keep people away" from drugs by focusing on the harm caused by its use. Training should focus on the external factors which promote drug use and on strategies to change these factors. Although formal methods, i.e., lectures and seminars, will be used to impart knowledge, an attempt will be made to create a change in the social milieu of the medical school to one that sees drug use as dull, boring and flat.

Impediments:

- Changing the social milieu of the medical school with regard to drug use may take time since it requires altering established attitudes and beliefs.

- Since we will initially be working with only a group of students, other members of the subculture will still be promoting drug use in their day to day life.

- The attitude of the students may be influenced by the outlook of the general society, which may be one of drug promotion.

- The students may be resistant to change, since the education involves examining one’s own beliefs and practices.
Strategies:

1. Identify and train a core group of academic staff members interested in participating in the project.

2. Initial informal training of current medical students regarding factors that promote drug use, and effective methods of prevention.

3. Identify key students interested in attempting to change the medical school subculture in regard to drug use, and gain agreement with them on strategies.

4. Informal attempts by students to change the medical school subculture.

5. Evaluate progress.

6. Modify strategies according to evaluation results and continue project.

7. Perform the final project evaluation and publish results.

TIMELINE (MONTHS)

1-3

3-9

9-12

12-24

24-25

25-32

32-36

UNITED KINGDOM

Author: Dr Larry Harrison

Problem: In recent years, there has been great progress in the provision of training for UK health professionals at the levels of postgraduate and continuing professional education. Considerable problems remain at the qualifying stage of professional education, where many Schools of Medicine, Nursing and Social Work provide little or no training on substance abuse problems. However, there have been some significant advances in social work and nursing, where core competencies for qualifying practitioners have been or are in the process of being formulated. Unfortunately, many practitioners who trained when these issues were not addressed in the professional curriculum are not able to make the best use of the advanced training offered, because of their lack of basic knowledge and skills.

Objective: To provide a training course aimed at equipping qualified physicians, nurses and social workers with core competencies in response to substance abuse problems.

Impediment: Once qualified, it is difficult for the primary care staff to find the time to attend training courses, and the logistics and costs of providing such training in every locality are prohibitive.

Strategies:

TIMELINE (MONTHS)

48

12

1. Design a distance taught learning programme, supplemented by a one week summer school course, aimed at providing core competencies in response to substance abuse problems.

2. Design and pilot distance taught models that are common to all disciplines i.e., the nature, range and scale of substance abuse problems in the UK.
3. Evaluate and redesign key models. 12-24

4. Conduct and evaluate the first summer school course. 13-24

5. Design and pilot distance taught models that are taught in depth for specific disciplines i.e., psycho-pharmacology for physicians and nurses. 25-36

6. Evaluate and redesign discipline-specific models. 37-45

7. Finalize distance learning programmes including content, marketing, recruitment, and commencement of programme. 46

USA (1)

Author: Dr Marc Galanter

Problem: For the past 10 years, there has been a growth in the number of medical fellowship training programmes in the United States. This training follows the completion of a basic residency in either primary care or psychiatry. The programmes have been established in teaching hospitals and are almost all affiliated with university medical centres. There are now 46 such programmes, but the format of teaching, the quantity and quality of teaching services available, and the faculty resources employed vary considerably from one programme to another. In order to create greater uniformity and increase the resources available to the respective fellowship programmes, better coordination and information exchange would be necessary in the future.

Objective: In order to meet needs for enhanced information and coordination between fellowship programmes, the Centre for Medical Fellowships in Alcoholism and Drug Abuse, located at New York University, will develop an electronic communications network for the fellowship programmes currently in operation, and any new ones that are established. The network, an Internet Web Site, will focus on the availability of basic information regarding fellowships to all potential applicants, so as to make available a pool of high-quality fellows. It will serve as a mode of communication between fellowship faculty and directors, and operate as a base for the dissemination of relevant information for teaching faculty, drawing on the resources of the organizations that sponsor the centre.

Impediments: This initiative has few counterparts among established electronic communication systems in the addiction field, and it will be essential for relevant parties to become acquainted with the format in order to make use of it. Furthermore, only a limited number of American academics regularly use electronic mail, and the respective sponsoring organizations' members are often unfamiliar with this format. The Web Site itself raises a variety of technical problems, including procedures for making available large bodies of material currently produced on hard copy, and accessing other databases through Hypertext.

Organizations to be involved in this project are the American Academy of Psychiatrists in Alcoholism and the Addictions, the Association for Medical Education and Research in Substance Abuse, and the American Society of Addiction Medicine. Other appropriate organizations, such as the National Institutes on Alcohol Abuse and Alcoholism, and on Drug Abuse; the American Psychiatric Association; the World Health Organization; the European Addiction Association; and others, will be used. It will be difficult to obtain cooperation from these groups and to obtain cooperation in preparing proper information to down-load into the Web Site. It will also be hard to disseminate information to members of this group on the availability of this service.
Strategies:

1. Establish the technologic base for a Web Site for the centre for Medical Fellowships in Alcoholism and Drug Abuse, through the NYU Clinical Research Center.

   TIMELINE (MONTHS)
   1-3

2. Enter core information on fellowships and curricula into the Web Site. This includes technical aspects of entering extensive data.

   3-6

3. Apprise the sponsoring organizations of the availability of information through this Web Site. This includes ensuring that the many components of these large organizations are aware of the service.

   6

4. Establish Hypertext ties with other relevant databases. This necessitates contacting all relevant groups.

   12

5. Disseminate information on the Web Site to national parties involved in fellowships and in the area of substance use, as well as other relevant parties in the United States and abroad. University academics will be solicited for E-mail addresses.

   16

6. Assure availability to parties seeking information on application to fellowships or on structuring teaching and curriculum.

   20

7. Reorganize the communication systems initially set up within the Web Site operation so as to respond to observations from the early use of the Web Site.

   24

8. Prepare a formal report on the resources available through the system, and how they are used.

   30

9. Disseminate the report.

   36

USA (2)

Author: Dr David Lewis
(in collaboration with Catherine D’ube and Susan Storti)

Problem: There is a lack of substance abuse training in the community setting. With increasing interest in primary health care models, medical education is moving away from teaching in the inpatient, tertiary care setting and towards a community-based teaching model. Medical educators are starting to consider the implications of such a shift in emphasis, and are beginning to experiment with models for community-based training of medical students and primary care residents. Concurrently, consumer demand for substance abuse medical education is growing. As the health care system becomes more and more dominated by organized systems of care (managed care organizations), we envision a growing expectation by both providers and consumers of health care that medical graduates be well versed in prevention, screening, diagnosis, intervention and treatment of alcohol and other drug problems, and that such training be covered formally in the mainstream of medical education.

Objective: The objective of the proposed project is to develop a protocol and system for conducting community-based medical training on alcohol, tobacco and other drug topics essential to developing adequate competence in medical students in the primary care setting. Elements of the programme include identifying
structural aspects that enhance the clinical/educational experience and ensuring that minimal educational goals and objectives of the training are met. Examples of such structural elements include self-assessment tools, mentoring guidelines, specific targeted clinical tasks, and community faculty development.

**Impediments:** With a shift to the community setting, little supervision of faculty is available and community-based faculty have little or no training in educational strategies and approaches for substance abuse education. Furthermore, community faculty will not be effective clinical teachers if they cannot adequately be the clinical role models for important substance abuse related practice behaviours i.e., screening, diagnosis, referral, brief advice. This presents a significant CME and faculty development challenge and will necessitate continued support, supervision, and training of the community faculty.

**Strategies:**

| 1. | Develop a draft implementation guide and curriculum outline for a community-based programme and orient clinical training in ATOD for clinical supervisors and medical students. | 1-8 |
| 2. | Circulate a draft implementation guide and curriculum outline for expert national review. | 9-10 |
| 3. | Revise draft materials to reflect national review. | 11-12 |
| 4. | Pilot test faculty development materials and educational protocols in limited community-based practices affiliated with Brown University School of Medicine. | 13-18 |
| 5. | Revise and finalize materials and protocols based on pilot experience. | 19-24 |
| 6. | Disseminate materials to other medical schools. | 25-36 |
| 7. | Fully implement and evaluate the community-based training programme at Brown University. | 25-36 |

As the reports described above indicate, there is little uniformity on how to change health professional education in the area of substance use. Substance use patterns and problems are changing in many countries, and the impact of certain substances, such as alcohol and tobacco, are now better known in both developed and developing countries. The health professional needs to have access to knowledge, skills training, changing attitudes in relation to clients presenting with substance use problems in daily practice. Based on the WHO general framework for changing medical education, in the next section it is proposed that those general principles and guidelines be adapted to the field of psychoactive substance use. Hopefully, this general outline will be used by Member States, universities, medical and nursing schools, for changing curricula and objectives of training both generalists and specialists in this field.
7. A General Framework for Action

Principles:

1. Health professional education on psychoactive substance use must be relevant to people’s needs and applicable to health professional practice.

2. Substance use issues should be part of both undergraduate and graduate health professional education, thus being the foundation for subsequent specific training.

3. Assessment and management of the most relevant substance use problems should be taught in every health professional school.

4. Whenever possible, every country should provide postgraduate training in Substance Use Prevention, Treatment, Care and Rehabilitation.

5. Continuing education should focus on performance improvement in meeting people’s needs. As drug use patterns and trends change over time, the health care provider should actively participate in continuous reviews of their own performance and adaptation to new community substance use related problems.

Aims

The aims of a strategy for changing health professional education on psychoactive substance use may include:

1. To support and promote health sciences and clinical practice on substance use related problems integrated into primary care.

2. To help structure the programme capacity of individual medical schools and similar institutions to train and reorient professional education/training on substance use disorders.

3. To improve the quality of primary health care practices in the substance use field by promoting standards of clinical practice, and by fostering and promoting research on health professional education.

4. To promote the role primary care professionals can play in the prevention and treatment of substance use related problems.

5. To provide means of monitoring and evaluating changes in health professional education.

Plan of Action/Strategy

Depending on the country, setting and resources, more than one approach might be appropriate and different options may be available.

National Level

1. Mobilize medical, nursing and other health-related schools, professional associations, teaching and district hospitals, and NGOs, as these are the various potential partners for collaboration and changing health professional education.
2. Formation of a National Advisory Committee to discuss needs and to develop a minimum curriculum to all health professional schools and to specific professionals, to coordinate monitoring and evaluation activities and to discuss collaboration.

   Members of the Advisory Committee would include:
   Government
   Universities
   Professional associations (medical, nursing, etc)
   NGOs
   Community leaders
   Health care providers
   Teaching and district hospital managers

3. To develop a plan of action to implement curriculum changes and how to evaluate them.

4. Define indicators of change at local and national levels on a short- and long-term basis.

5. To continuously evaluate the impact of implemented changes.

**Institutional Level**

To steer the change process at the institutional level, i.e., in medical or in other health professional schools, the institution must define its mission by anticipating the essential knowledge and attitude that health professionals must possess in order to effectively respond to the health problems of the community that he/she will be working in. Wherever substance use leads to public health problems, the school must be committed to providing better education and training in assessment and management of such problems at the individual and community levels.

Support given by the school’s leadership is one of the most important factors for successful implementation of changes in health professional education. By leadership we are implying not just the dean and the heads of departments, but also the faculty. Unless the problems related to substance use are perceived as a public health issue, any changes in medical education will be limited to isolated initiatives.

Active research should be the basis for developing and managing the process of change in health professional education on substance use disorders. This implies that finding out what are the problems and what can be the solutions is the driving force for change. An action plan is developed in stages or phases, and each phase is analysed before the next stage is initiated. A team, facilitated by a researcher and comprised of teachers, researchers, trainers, administrators and health workers/students coordinates, would conduct the research to solve problems and improve education and training, using reliable and valid methods of assessment, monitoring and evaluation.

A strategic approach should be taken to fostering capability-building and steer the process of change, upon agreement with the dean or other leaders from the school. We are proposing a list of steps or activities that might be taken at the institutional level. The list is not complete and should serve only as a general guide which will need adaptation for each situation.
8. PHASE I: Steps to Getting Started

Step 1. Develop a mission statement

Goal: To draft a statement which explains how the school intends to serve the needs of society regarding substance use related problems. It should involve leaders at the school, faculty, students and staff.

Tasks:

• Form a steering committee with wide representation of the community's leaders of administration, faculty, staff, representatives of local health authorities, the medical profession (and/or other professional associations) and the community, to draft the statement.

• Send draft to other staff and faculty for comments and suggestions, promoting a wider discussion of the document.

Step 2: Work with concerned parties

Goal: To collaborate with local health authorities, relevant groups of the health sector, community leaders and nongovernmental organizations interested in substance use.

Tasks:

• Identify institutions, groups and persons in the community with whom collaborative links should be established.

• Share information regarding the medical school's current and planned activities and encourage collaborative arrangements.

• Identify activities which can be carried out by other groups: health service research, quality assurance, continuing medical education, postgraduate courses, for example

Step 3: Plan the curriculum according to health needs

Goal: To gather data regarding the impact of substance use in the community, and general community health status and health needs, and include data on all services available within the community, ranging from self-help groups to drug information centres, treatment centres (outpatient, inpatient, detoxification centres) and rehabilitation services.

Tasks:

• Identify sources of data.

• Prepare a plan for collecting the data.

• Develop and implement a survey.

• Collate information and develop conclusions.

Data sources may consist of already existing demographical and epidemiological data, surveys and interviews with students, practitioners, clients, educators and administrators of health care services.
Step Four: Develop the profile of the health professional

Goal: To determine the knowledge, skills and attitudes towards substance use and related problems that are essential for a health care worker within your community

Tasks:

- Collect data regarding health needs of the population to be served, in terms of substance use and related problems.
- Identify priority health issues that must be addressed by the health care worker and the health care system.
- Identify responsibilities of the health worker (this will vary according to the background education or profession of the worker), from a preventive, curative and rehabilitative perspective, taking both the individual and the community into account. Define them on behavioural terms ("the professional must be able to...") These will constitute the profile of the future professional who will be competent to deal with substance use problems.
- Get a representative sample of medical school faculty and administrators for input on these activities.

Step Five: Assess the usefulness of the present curriculum

Goal: To determine which portions of the present medical school curriculum - both content and methodologies - will best serve to train the "future professional" and which should be modified

Tasks:

- Analyse what is appropriate about the present curriculum and need not change; what is acceptable but should be improved; and what is inappropriate and must be changed.

This analysis can be carried out by a group of representatives from the faculty, staff, administration and students of the school. It may include the number of hours of teaching and practical training on substance use issues during each year of professional education, divided by discipline, special courses, programmes or activities at undergraduate, graduate and postgraduate levels, how knowledge and skills are evaluated (number of questions related to the subject are asked in final or intermediate exams, how training is supervised), questionnaires sent to students and recently graduated professionals, or the perceptions of clients on how well professionals graduating from school are than other professionals at dealing with substance use related problems.

The present curriculum is reviewed and suggestions are made for its modification (both of content and educational methodologies).

Step six: Assess the student evaluation system

Goal: To determine which portions of the present student evaluation system will best serve to evaluate the knowledge, skills and attitudes expected in the future professional in relation to substance use disorders, and which must be modified

Tasks:

- Analyse what is appropriate, what is acceptable but should improve, and what is inappropriate in the evaluation system of students, as this will determine the effort they put into a subject. Traditionally,
written evaluations cover only knowledge, but attitudes and skills are rarely assessed (and often not taught). As a result, professionals may feel insecure about their own abilities in dealing with substance use issues.

Step Seven: Assess the faculty and staff

Goal: To assess the ability of the present faculty and staff to train the future professional, and to determine whether additional different or additional staff will be needed to meet the objectives in the mission statement of the school.

Task:

- Role models and mentors are known to serve as driving forces of change. Try to identify if some of the faculty are perceived as having this role, and also have the skills to train and supervise students on substance use matters. If gaps are identified in the existing faculty, a faculty development programme can be developed and implemented to help in the process of change in professional education on substance use.

Step Eight: Assess the organizational structure

Goal: To determine whether the present organizational structure can initiate and sustain the curricula, evaluation and faculty changes proposed.

Task:

- The organizational structure must allow for training of students in the community, within primary health care settings, and with on-site visits to the available community services and facilities for dealing with substance use-related problems (emergency rooms, self-help groups, rehabilitation centres, social services, etc). Training of skills should be carried out together with other clinical/applied disciplines, knowledge must be integrated in as many disciplines as possible (all which are related directly or indirectly to substance use and its consequences). Faculty must be available for on-site supervision, discussions on attitudes in relation to substance use, and use an interdisciplinary approach if possible. It may be necessary for departmental changes or the creation of a department or sector specifically on substance use related programmes.

Step Nine: Assess the reward system

Goal: To determine whether the present structure for faculty and staff rewards is appropriate.

Tasks:

- Delineate the behaviours expected from faculty and staff as related to substance use matters and training in this area; identify incentives and disincentives for faculty and staff to support changes in professional education and training on substance use issues.

- An external evaluation might be necessary to obtain reliable information. This, however, can be one of the most crucial barriers to curricula changes and therefore must be dealt with. It will allow for an estimation of the forces and barriers to change within and outside of the school.

Step Ten: Prepare appropriate leaders

Goal: To create a climate for change by identifying appropriate persons to serve as leaders in the change process.
Tasks:

- Identify key persons who have qualities of leadership, are supported by colleagues within the institution, are committed to change and have the expertise, prestige and experience on substance use matters.

The identified leaders can be trained to become trainers and form a link between institutions, agencies, departments within the school, serving a coordinating role whenever possible.

During Phase I, baseline data can be collected and a plan of action can be developed to be implemented and evaluated in phase II and III.
9. PHASE II: Steps to Initiate Implementation

Step One: Seek financial support

Goal: To identify various potential internal and external sources of financial support for implementing changes.

Tasks:

- Explore reallocation of internal resources, government support, support from nongovernmental, philanthropic and intergovernmental organizations. International funders and twinning projects might also be explored.

- Prepare and submit applications for grants and similar funding possibilities.

Step Two: Gather materials to develop new curriculum

Goal: To gather guidelines, ideas and educational resources from other innovative medical schools or similar institutions.

There have been many initiatives around the world aimed at improving the education and training of health professionals on substance use disorders. There are guidelines, educational resources and activities which can be adapted to the local reality. A list of resources and institutions is given in Annex 1.

Tasks:

- Contact institutions and organizations with experience on changing health professional education (related or not to substance use), including WHO Collaborating Centres and other nongovernmental organizations.

- Curricular syllabuses, educational materials, health service research protocols, medical education research protocols, and published literature can be obtained and adapted.

It is important to emphasize that the contents of a basic curriculum on substance use and problems should differ according to local needs, be relevant to the current community situation and to the role of the physician and other professionals in that particular society. Therefore, finding out what the present situation of the community is should be the first step taken.

These are some examples of possible initiatives:

1. A survey in schools among undergraduate and postgraduate students, educators and managers on;

   a) views of the roles of health professionals regarding prevention and treatment for substance use problems, and the function of the school in preparing them for these roles;

   b) current curriculum on substance use: knowledge, skills, attitudes and competencies;

   c) barriers to assessment and intervention in the substance use field;

   d) needs on health professional education and training on psychoactive substance use disorders.
2. Consultation with health professional associations and other support groups to find out what is needed and what the incentives and disincentives are to effective assessment and management of substance use problems.

3. Minimum knowledge, attitudes and skills (competencies).

4. Minimum curriculum and training.

5. Monitoring and evaluation.

**Step Three: Develop organizational plan**

Goal: To establish roles and responsibilities for all participants in the process.

Tasks:

- develop an organizational chart/plan with deadlines to perform the various tasks needed;
- identify persons who are willing to be involved and see if they match a specific job description for the project;
- meet regularly with key leaders and departments, general faculty and staff to receive continuous input, keep track of plans and reassure their involvement in the project.

**Step Four: Deal with barriers to change**

Goal: To attempt to overcome resistance to change.

Tasks:

- Identify those who are resistant to change and talk with them, trying to arrive at a consensus.
10. PHASE III - Steps to Full Implementation

Step One: Develop a Curriculum schedule

Goal: To establish a detailed schedule for the components of the curriculum, including:

- when basic knowledge is given and evaluated;
- when clinical experiences begin and how it is built up, when and how skills are learned and evaluated;
- when attitudes are discussed and evaluated;
- who and how supervision is given and evaluated;
- content, time allocation and teaching methods of each component of curriculum.

It is important to discuss the new curriculum plan with students, faculty, administrative staff and representatives of professional associations. The new curriculum must meet the needs of the "future professional" regarding the prevention, treatment, care and rehabilitation of substance use disorders.

Step Two: Establish an ongoing evaluation plan for the short-term and the long-term

Short-term

Goal: To obtain preliminary feedback on implemented changes in order to assess the feasibility and effectiveness of the programme.

Tasks:

- Develop questions which can be answered in one or two years regarding the feasibility, effectiveness, costs and satisfaction of the programme.
- Make fine adjustments to plan if preliminary evaluation indicates gaps and changes are needed.

Long-term

Goal: To evaluate the long-term results of the curriculum changes.

Tasks:

- Longitudinal evaluation of students, graduates and faculty involved in the programme.
- Assessment on how the new graduates are meeting the standards of the "future professional".
- Evaluation of health services in the primary care setting and in the teaching/district hospital.
- Evaluation of client satisfaction with new professionals.
- Evaluation of health care outcomes.
Step Three: Integration with community-based programme and health services (teaching hospital, general or district hospital, PHC centre, and others).

Goal: To integrate the process of change into health professional education and community services and programmes for substance use disorders.

Tasks:

- Establish a system of continuing education that would allow professionals in practice to change and improve their practice;
- Assess community services and professionals and develop quality assurance initiatives that can be made available to those practising in the community.
ANNEX 1

POSTGRADUATE MEDICAL EDUCATION ON SUBSTANCE USE IN THE UNITED STATES
- AN EXAMPLE

In order to attract qualified young physicians, the substance use field must move toward implementing an educational format that parallels those accepted in medicine broadly.

The best established option for such training is now a certificate of "added qualification." This procedure requires that a candidate has completed at least one year of full-time formal training in a subspecialty programme and has passed an additional examination prepared by the Member Board. This process can be instituted by any of the medical specialties in order to institutionalize post-residency training in addiction, and promote development of a cadre of physicians who will serve as medical academics and practitioners in the field.

As a more impressive scientific basis for alcohol and drug use arises, a greater impact on medical practice will be felt. A bridge from bedside clinical problems in substance use related disorders to the more rigorous domains of modern science is therefore desirable. Enhanced fellowship programmes can provide such a bridge.

This section presents guidelines for fellowship training programmes which would be aimed at forming the faculty with knowledge, skills and a positive attitude to carry out curriculum changes later on. Faculty formed would also serve as role models for clinical training of medical students and residents in substance use disorders. A curriculum outline that represents the consensus of teaching authorities on issues to be addressed in training medical specialists in addiction is also included. The curriculum is also designed for training general physicians who treat patients with addiction problems.

GUIDELINES FOR FELLOWSHIP TRAINING PROGRAMMES

These are recommendations for training standards for fellowship programmes.

The standards given below are therefore conceived with four goals in mind:

1. Provide a model for the enhancement of existing training programmes;
2. Aid medical schools working toward establishing new programmes;
3. Provide standards by which applicants can evaluate their own training needs; and
4. Aid in the evolution of the field, so that standards for training in alcohol and drug use disorders can ultimately be formalized within the mainstream of medical training.

The format of these standards applies to facilities, expected knowledge and skills, and the educational programme. With regard to the duration of training it was felt that a period of one year, including teaching and research experience, would be preferable in order to assure a thorough education for the emerging specialist. It is noted, however, that a period of one year as "added" and "special qualification," offered immediately after the residency could also be effective.
GENERAL INFORMATION

Subspecialty training in alcohol and drug issues is a component in the continuum of the educational process; such training will ordinarily take place upon satisfactory completion of an accredited residency in a medical specialty.

To be eligible for accreditation, the subspecialty programme must function as an integral part of a residency programme in a specialty providing direct patient care. Its services should primarily be based in the teaching facility where the parent accredited residency is located. The parent institution must be qualified to provide the calibre of training necessary for a certificate of special qualification or a certificate of added qualification nationally approved.

General principles of education apply here to subspecialty programmes. The following principles require special emphasis:

1) Subspecialty training programmes must provide an intellectual environment for acquiring the knowledge, skills, clinical judgement, and attitudes which are essential to dealing with alcohol and drug problems in practice. This objective can be achieved only when the programme leadership, the supporting staff and faculty and the administration, are fully committed to the educational programme and when appropriate resources and facilities are available. Service commitments must not compromise the achievement of educational goals and objectives.

2) The subspecialty Programme Director must be qualified to supervise and educate trainees in the subspecialty. Thus, the Director must possess qualifications of high academic calibre and experience in the field, at least comparable to those which might be required of a physician certified in an alcohol and drug related issues subspecialty. The Director must be based at a primary training site of the subspecialty programme.

3) The subspecialty programme faculty must include a minimum of three qualified teaching faculty members, including the Programme Director, who devote substantial time to teaching and to critical evaluation of the progress and competence of the trainees.

Subspecialty programmes must include the following educational components:

(a) Programmes must provide appropriate and structured opportunities for trainees to maintain their skills in the parent medical specialty.

(b) A sufficient number of new and follow-up patients of appropriate ages, including the newborn, adolescent and geriatric age groups, and of both sexes, must be available to assure adequate inpatient and outpatient experience for each subspecialty trainee encompassing all types of substance use disorders.

Where the primary site of training is devoted only to a particular form of substance use disorder, appropriate arrangements must be made to ensure that adequate exposure is offered.

(c) Programmes must be based on a structured curriculum with well-defined educational goals and objectives. Clinical, basic science, and research conferences, as well as seminars and critical literature review activities pertaining to the field, must be conducted regularly and as scheduled. It is essential that trainees participate in planning and in conducting conferences. Faculty and trainee attendance and participation at multidisciplinary conferences is expected.

(d) Subspecialty trainees must have appropriate supervised opportunities to develop skills in providing consultation and in communicating with colleagues and referring physicians. The programme must
provide trainees with the opportunity to teach medical students, physicians, and other professional personnel.

(e) Lines of responsibility must be clearly delineated for trainees in the subspecialty programme and for residents in the parent medical specialty training programme. In addition, it is highly desirable that trainees have a close working relationship with trainees in accredited programmes in other related medical specialty disciplines at the training site. Where appropriate, qualified faculty in these disciplines should provide instruction and supervision for subspecialty trainees.

(f) Faculty supervision of trainees in the performance of those procedures integral to the discipline is required. Trainees must develop a comprehensive understanding of the indications, contraindications, complications, technique, and interpretation of results of these procedures. Each trainee’s experience in performing such procedures must be documented by the Programme Director.

(g) Training should include cultural, social, family, behavioural and economic issues, such as confidentiality of information and allocation of limited resources.

(h) As part of the academic environment, an active and productive research component should be included within the programme. Faculty members are expected to participate actively in basic, clinical, or health services research. The programme must ensure meaningful, supervised research experience for each trainee while maintaining the essential clinical experience. Trainees must learn the design and interpretation of research studies, including responsible use of informed consent and participation in clinical trials, research methodology, and interpretation of data. They should develop competence in critical assessment of new therapies and of the medical literature. Trainees should be advised and supervised by qualified staff members in the conduct of research.

Subspecialty Programme Directors must establish procedures for evaluating the clinical and technical competence of subspecialty trainees. These procedures must include observation, assessment and substantiation of the trainee’s acquired body of knowledge, skills in physical examination and communication, technical proficiency, professional attitudes, and humanistic qualities as demonstrated within the clinical setting. The trainee’s abilities in consultation skills, patient management, decision-making, and critical analysis of clinical situations also must be evaluated. The evaluation process must include structured feedback on performance, including appropriate counselling and other necessary remedial efforts.

Peer interaction is essential in the educational process. Each accredited subspecialty programme should have at least two trainees enrolled at all times.

FACILITIES AND RESOURCES

All aspects of the programme must be lodged in designated facilities, based on written agreements between the participating parties. There must be enough space and equipment for educational activities such as seminars, lectures and other teaching exercises. The facilities should assure appropriate accessibility to trainees and faculty, and quantity and quality of care.

Fellowship programmes will require access to inpatient, partial hospitalization, residential, and ambulatory care treatment programmes that provide an adequate number of patients and a variety of patient populations and dependence problems. Exposure to self-help and other community programmes that assist substance use patients must be provided to the fellows. Most currently accepted treatments must be represented, such as alcohol dependence rehabilitation, inpatient detoxification, substitution treatments, narcotic antagonist maintenance, drug-free programmes, etc. (according to the country). The training programme should strive for integration among clinical programmes with which it is involved, providing comparability in evaluation (including physical and laboratory testing), referral, and follow-up. The record system must be designed
for the retrievability of data pertinent to patient care, the monitoring of fellows’ experiences, and the conduct of research.

The sponsoring institution must provide trainees with ready access to a medical school library whenever available. They should be assured easy access to texts and journals relevant to the field. In addition, the programme must promote an atmosphere of scholarly inquiry including the access to ongoing research activity.

Faculty resources required for a programme should be adequate for the number of trainees the programme teaches; generally, there should be no less than one full-time faculty member per 1.5 trainees. The Programme Director must have a minimum of two years full-time professional activity in the field. The Programme Director should also be a medical school faculty member with major commitment in an academic department at his respective school, preferably with a full-time appointment. He should devote at least half time to the alcohol and drug programme. Depth in research resources and faculty is essential for a good programme.

EDUCATIONAL PROGRAMME

A subspeciality educational programme in alcohol and drug use issues must be organized to provide sufficient training to assure the competency of a specialist in the field. A two-year programme, in the form of an Academic Fellowship in Alcohol and Drug Related Problems, can provide an appropriate, thorough clinical training as well as additional experience in research and teaching to the training programme. It is recognized that one-year programmes of added or special qualification in alcohol and drug related problems may be developed in some specialties.

Clinical experience must include opportunities to observe, manage and judge the effectiveness of therapeutic programmes in patients with a wide variety of alcohol and drug-related disorders on both an inpatient and outpatient basis. The trainee must be given opportunities to assume continuing responsibility for both acute and chronically-ill patients in order to learn the natural history of substance use. Subspecialty training should ensure that the trainee understands the scientific issues currently being investigated in the field, their present and potential applicability to prevention and treatment, and the interpersonal techniques needed to be an effective therapist. He or she should understand the various approaches to identification of chemical dependency as a problem in an individual patient, the ways to confront the patient, the settings in which intervention may take place, and the variety of approaches to withdrawal of the psychoactive substance and long-term treatment and rehabilitation. The fellow should understand the limitations of current evaluation of treatment outcomes, and the proper procedures for conducting such an evaluation. The fellow should understand the current social and political influences on the availability of psychoactive substances, and the possible role of social policy innovation in controlling the spread of substance use related disorders.

The final product of the programme should be physicians who can integrate the science and therapeutic techniques of addiction into their general medical knowledge, and who can become effective bedside teachers of their subspecialty discipline to others.

The programme should be structured to provide a clinical core experience in the following, individualized to the specialty area of the trainee:

1. National policies and legislation on treatment and care of problems due to psychoactive substance use.
2. Primary Prevention and Health Promotion within primary health care.
   a) patients with primary alcohol and/or drug harmful use or dependency;
b) hospitalized medical and surgical patients with drug and/or alcohol harmful use and dependency, and comorbid psychopathology;
c) psychiatric patients - inpatient and outpatient - with chemical dependency;
d) patients with chronic pain disorders;
e) medical professionals with chemical dependency;
f) optional: patients with other related disorders (gambling, eating);
g) families of above patients.

4. Assessments
   a) biochemical indicators of harmful and chronic alcohol/drug use;
   b) toxicology of recent use;
   c) questionnaire assessments, such as the AUDIT, CAGE, MAST and the Addiction Severity Index;
   d) diagnostic criteria for substance use related disorders (DSM IV, ICD-10);

5. Exposure to the evaluation and treatment of problems related to each of these agents:
   a) alcohol
   b) opiates
   c) cocaine and stimulants
   d) marijuana and hallucinogens
   e) benzodiazepines
   f) solvents
   g) nicotine
   h) others, including sedative-hypnotics
   i) multiple drug use.

6. Pharmacology of the aforementioned drugs.

7. Types of treatment (may vary from country to country):
   a) community involvement in treatment and rehabilitation;
   b) brief interventions in primary health care;
   c) detoxification (inpatient and outpatient);
   d) health complications of substance use and dependence (including AIDS);
   e) referral and intervention procedures;
   f) rehabilitation models based on 12-step programmes, and their application in inpatient and outpatient settings;
   g) individual therapy or counselling - inpatient and outpatient: interactional, group, cognitive, and behavioural;
   h) group therapy - inpatient and outpatient;
   i) adolescent alcohol and drug use programmes;
   j) network therapy or ancillary family treatment;
   k) organization and procedures of substitution treatment process;
   l) organization and procedures of therapeutic community;
   m) pharmacological treatment of drug and alcohol dependence, using agents such as antabuse, naltrexone, desipramine;
   n) long-term ambulatory care and rehabilitation;
   o) optional: other therapies, e.g., acupuncture, hypnosis, cognitive therapy;
   p) optional: organization and procedures of Employee Assistance Programmes;
   q) optional: psychiatric complications of chemical dependency.
8. Research techniques and current knowledge in epidemiology, genetics, pharmacology, social theories, psychology, toxicology, treatment outcome:
   a) knowledge of current literature,
   b) exposure to ongoing research in the training centre,
   c) desirable: conduct of an independent research project.

SPECIFIC KNOWLEDGE AND SKILLS

The field of substance use requires knowledge of pharmacology, psychiatry, general medicine, and psychology, as well as an understanding of the interaction of these disciplines. In order to ensure that the trainee is well-versed in these areas, training programmes must include both hands-on experience in clinical situations as well as classroom and seminar sessions. Areas of emphasis must be tailored to the practice requisite to the given specialty of the trainee, which will be different for psychiatry, internal medicine, family practice, etc. Opportunities to acquire skills in the following areas must, however, be included, and should be individualized relative to the medical specialty background of the trainee:

1. Recognition of the signs and symptoms of the use of all of the major categories of drugs, including sedatives (alcohol, benzodiazepines, barbiturates), stimulants (cocaine, amphetamine), opiates, solvents, tobacco and hallucinogens.

2. Recognition of the signs of harmful use and dependence of these categories of drugs, and knowledge of the types of treatment required for each.

3. Recognition of the signs of withdrawal from these major categories of drugs and knowledge and experience with the range of options for treatment of the withdrawal syndrome and its complications.

4. Recognition of the signs and symptoms of overdose and medical and psychiatric sequelae of these major categories of drugs and the ability to provide proper treatment for overdose.

5. Hands-on management of detoxification and acute hospital treatment of the chronic use of the major categories of drugs.

6. Recognition of the signs and symptoms of the social and psychological problems accompanying the chronic use of the major categories of drugs.

7. Recognition of the signs and symptoms of the psychiatric disorders which often accompany the chronic use of each of the major categories of drugs.

8. Use of psychoactive medications in the treatment of psychiatric disorders often accompanying the use of the major categories of drugs.

9. Conduct of the psychotherapeutic techniques required for intervention and confrontation with the chronic drug user and dealing with the denial that causes the patient to resist entry into treatment.

10. For psychiatrists, in particular, hands-on experience with the psychotherapeutic techniques involved in the management of the chronic drug using patient, including individual psychotherapy, marital therapy, family therapy, behaviour therapy and group therapy.

11. For internists and family practitioners, in particular, diagnosis and management of the medical sequelae of substance use, including hepatic, central nervous system, infectious, and HIV illnesses. Brief Interventions for those at high risk of dependence.
12. Experience with collaborative therapy with other therapists who participate in the care of substance use patients, including nurses, social workers, psychologists, nurse practitioners, non-professional counsellors, pharmacists and others.

13. Recognition and understanding of the special problems of the pregnant drug user and of babies born to substance-using mothers.

14. Familiarity with the major medical journals and professional-scientific organizations dealing with research on the understanding and treatment of substance use at the national and/or international level.

15. The ability to critically analyze research reports such as acquired in journal clubs and seminars.

16. The ability born of experience to teach and supervise student clinicians in the care of substance use patients.

**MAKING OPTIMAL USE OF AVAILABLE CLINICAL TEACHING SETTINGS**

Appropriate clinical training sites are necessary for education of physicians in substance use disorders, particularly at the postgraduate level. In national settings where such training has been ongoing for an extended time, training units which provide a progressive view of the substance dependent user are generally available, and a positive clinical atmosphere serves as a vital educational tool. In many medical teaching settings, however, there are no such services, and it is important to make the best use of existing resources.

The following option illustrates how available resources can be combined to create a clinical teaching unit. This is done by combining the resources of existing inpatient detoxification with the option to follow patients in an ambulatory setting. The former provides exposure to acute medical problems associated with long-term substance abuse, and the latter provides experience in engaging patients into ambulatory treatment.

Most medical schools have a teaching general hospital where patients are detoxified from chronic use of alcohol or drugs which are common in that locale. Many of these hospitals maintain scatter-bed units on general medical services where patients can be detoxified. In these settings, it is important that substance abuse be properly diagnosed and its clinical import acknowledged. This way patients can be engaged in attempts to modify their future substance use, and to embark on a programme of rehabilitation. Sometimes the teaching hospitals maintain an acute detoxification unit, one that provides a more convenient setting for training, in which treatment teams oriented toward detoxification and rehabilitation are placed. In any case, these clinical settings can be maintained with a positive attitude toward the substance abuser, with an earnest attempt for trainees to be exposed to options for engaging patients in the treatment continuum that would lead to remission.

Ambulatory care is a second vital component. Family and peer supports to bolster abstinence may be engaged by the clinician in order to move the patient towards recovery, and to support practical steps to prevent relapse. This approach, called Network Therapy, is readily adapted to patients who have supportive collaterals, be they immediate family, or peers who are concerned for their welfare. These parties can be assembled in an office setting affiliated with the teaching service, along with the patient. The clinician and network collaborate to undercut the denial associated with addictive illness and stabilize the course of treatment so as to avoid early dropout. Optimally, a bridge can be built between the initial detoxification and ambulatory care in the network. This way, patients who require hospitalization can initially undergo detoxification and then be again engaged in ambulatory network therapy. Patients who have been engaged with family and peers but later relapse can be hospitalized if necessary. Many patients will be effectively treated by clinical trainees in the ambulatory setting alone, by means of the support available through the network.
ANNEX II

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ANNEX III

RESOURCE DOCUMENTS AND SELECTED BIBLIOGRAPHY


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