

Psychoactive substance use (drug abuse) and a resource-oriented strategy to confront it in the Eastern Mediterranean Region

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Introduction

There are many aspects to psychoactive substance use of which health consequences, including drug dependence, represent the most significant. Other aspects include drug production, marketing, legislation, law enforcement and the provision of drugs for medical use. Drug abuse is more than a health problem, it is a formidable social challenge as well, and no single country or territory can be regarded as drug free. While it is not easy to give an accurate estimate of the extent of drug abuse it is certain that what is seen and reported is much less than the actual scale of the problem.

The UN General Assembly in a Special Session on Drugs in February 1990 proclaimed the decade 1991–2000 to be the United Nations Decade against Drug Abuse. The Forty-third World Health Assembly passed a resolution WHA43.11 (1990) requesting both Member States and the Director-General of the World Health Organization (WHO) to take clear steps in areas of demand reduction, treatment, rehabilitation and research.

The recreational or ceremonial consumption of substances with psychoactive properties goes back to the beginning of civilization. The geographic area of the Eastern Mediterranean Region suffers from the abuse of both narcotics and psychotropic

drugs. The Region is also an important transit routes for drugs and as such is increasingly vulnerable to drug-related health, social and economic problems.

Health and other problems relating to drug abuse are numerous. Abuse increases accidents and injuries, both on the roads, in the workplace and at home. It is associated with suicide and violence as well as with absenteeism and decreased productivity. If used during pregnancy many psychoactive substances affect the fetus. It can shorten life by increasing a person's susceptibility to cancer, cardiovascular, respiratory, infectious and immune system diseases, particularly AIDS. It induces fundamental changes in personality and makes people susceptible to psychiatric illnesses. It breaks down the family unit, drains both the family and society's economic resources, deludes people out of participation in social development and hence, reduces their quality of life. There is a direct relationship between crime, corruption and drug abuse. Drug traffickers commit many criminal acts against the state and individuals, and an addict is capable of major wrongdoing to obtain drugs [1,8,12].

A brief review of the history of an addict's life can demonstrate both the gravity of the problem and opportunities for positive intervention. On the dark side, although physical and psychic dependence have different manifestations depending on the type of drug,

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over time the individual addict becomes someone whose life is dependent on regular consumption of a chemical. The availability of the drug determines their state of physical, mental, emotional and social functioning. On the brighter side, this is the end result of a long process that starts with experimenting with drugs. Drug-taking behaviour starts for many reasons and in the initial stages cannot be regarded as drug dependence. It usually takes a long time, from several weeks to several years, before dependence develops. During this period preventive activities can stop the full development of drug dependence or alcoholism [2].

It is only after a period of experimentation that the symptoms of dependence occur, and it takes a still longer time for the development of full-scale addiction with craving and withdrawal, social isolation, and participation in semi-clandestine groups to find drugs. Most people who experience drugs do not become addicts, and the stereotyped, terminal, skid-row (social outcast) addict is an extreme that does not represent the majority of the people who have at times experimented with drugs.

The causes of psychoactive substance use are complex and there is always an interaction between biological, psychological, socioeconomic and cultural causes. Therefore, treatment and rehabilitation should also rely on a variety of resources. This paper aims to introduce the basic elements of treatment and rehabilitation to assist in building systems of care which are appropriate to a number of different settings.

Common terms used in the context of substance abuse

For the purpose of this paper it is important to clarify the following terms and concepts [1,12,13].

- *Supply*. This deals with all aspects relating to the availability of a drug. These may include production, marketing, smuggling, laws and law enforcement, prescription of some drugs for medical use, monitoring techniques and customs regulations. Supply reduction requires legislation, action by law enforcement bodies, and economic and developmental measures to generate legitimate income to replace the income generated by drugs.
- *Demand*. This deals with aspects relating to the extent of the consumption of the drug; these include supply, individual, family and socioeconomic factors, as well as psychosocial or environmental factors like stress, cultural attitudes, social norms, religious influences, youth conditions and the like. There are no sharp lines separating the supply and demand sides. It is best to look at the problem as an open system with two major interacting subsystems.
- *Narcotic drugs*. This term refers to any drug which dulls the senses, relieves pain and produces a sense of well-being in small doses but causes insensibility and even stupor and death in large doses. The term has often been used loosely by non-medical persons to refer to all types of illicit dependence-producing drugs. Most pharmacologists, however, restrict its use to only those drugs which relieve pain and induce deep sleep, thus limiting this term to opium, opium derivatives (opiates), e.g. morphine, codeine, heroin; and synthetic compounds resembling opiates (opioids), e.g. meperidine, methadone. However, the term *narcotic* is often used in a wider sense and apart from opium products it covers the cannabis and coca leaf products, though cannabis and cocaine are, strictly speaking, not true narcotics.

- *Psychotropic substances.* This term is sometimes used to cover all psychoactive substances; more commonly in pharmacology it is used to refer to psychotherapeutic drugs (drugs used for the treatment of mental disorders). In the international treaty Convention on Psychotropic Substances, 1971, the term *psychotropic* is used in a wider sense to cover all psychoactive substances which have a potential for dependence.
 - *Psychoactive substances.* This term is gradually replacing the terms *psychotropic* and *narcotic* in medical usage. It is wider in scope and refers to all substances, drugs or otherwise, that affect the central nervous system and alter mood, perception and consciousness. As pointed out before, the terms *narcotic* and *psychotropic* have historically evolved over a long period of time and they continue to be used in two major international treaties namely, the Single Convention on Narcotic Drugs, 1961 [3] and Convention on Psychotropic Substances, 1971 [4]. However, for medical purposes and health records, WHO prefers the more comprehensive term *psychoactive substances* in the International Classification of Diseases (ICD-10) [6].
 - *Classification of psychoactive substances.* According to ICD-10, the use of the following groups of psychoactive substances can produce mental and behavioural disorders including dependence:
 - alcohol
 - opioids (opium and its derivatives)
 - cannabinoids (cannabis and its derivatives)
 - sedatives and hypnotics
 - cocaine
 - other stimulants (e.g. amfetamines, khat, caffeine)
 - hallucinogens (e.g. LSD)
 - tobacco
 - volatile solvents
 - multiple drug use and other non-specified substances
- The fourth edition of the American *Diagnostic and statistical manual of mental disorders* [7], now divides substance-related disorders into two broad categories: substance-use disorders (substance dependence and substance abuse) and substance-induced disorders (intoxication, withdrawal, substance-induced psychotic and mood disorders). However, this paper is written based on ICD-10 classification.
- Mental and behavioural disorders caused by psychoactive substances*
- The following are the major syndromes produced by psychoactive substances as described in ICD-10.
- *Acute intoxication.* This is generally dose-related. There are disturbances in the level of consciousness, cognition, perception, mood and behaviour, usually accompanied by changes in psychophysiological functions.
 - *Harmful use.* This term is applied when the use of psychoactive substances produces physical and/or psychological damage to health not amounting to dependence, withdrawal state or psychotic disorder. This term is important for listing health damage due to excessive use of tobacco and alcohol.
 - *Dependence syndrome.* In medical literature the previously popular terms of *addiction* and *habituation* have been gradually replaced by the more standardized term *dependence*. A classical dependence syndrome has the following features:
 - strong desire or a sense of compulsion to take the substance or drug;

- difficulty in controlling drug-taking behaviour in terms of onset, termination or level of use;
- a physiological withdrawal state when substance use is stopped or reduced;
- evidence of tolerance, i.e. over time an increased dose is required to produce the same effect;
- progressive neglect of alternative pleasures and interests; and
- persisting with substance abuse despite evidence of harmful consequences.

Some prefer to use the term neuroadaptability in place of dependence; however in this paper the term dependence will be used.

- *Withdrawal state.* In this state a person develops various physical and psychological symptoms of varying severity following the total or partial withdrawal of a psychoactive substance after heavy or prolonged use. The type of withdrawal symptom varies with different substances. Psychoactive substances differ greatly in their potential to produce dependence and withdrawal symptoms. For example, alcohol, opium, heroin and cocaine are known to have a stronger tendency to produce dependence than many other substances. Furthermore, individual reaction varies greatly due to different bio-psychosocial factors in each case. Hence, even by taking the same drug the end result may be different in different individuals.

Causes of substance abuse

There is as much speculation and hypothesizing about the causes of drug abuse as there are suggestions for treatment methods. The fact is that it is oversimplistic to look for

simple and easily definable etiological factors for a condition that has so many multifaceted, systemic and interdependent dimensions. At least three groups of causes have been proposed; biological, individual (psychological) and socioeconomic/cultural. Each can be viewed in a public health model consisting of the drug (as agent), the host (individual) and the environment (social factor).

Host factors

Genetic predisposition

This has long been postulated for drug dependence and has been studied most in relation to alcoholism. There is also the possibility of genetic disposition to narcotic abuse based on the biology of endogenous morphines. However, environmental factors undoubtedly influence the expression of any kind of predisposition.

Molecular biology

The presence of specific opioid receptors led to the discovery of morphine-like substances in the brain. These substances have a possible role to play in the etiology of opioid dependence. There are speculations about the role of these substances in alcoholism as well. There are numerous alcohol-metabolizing enzymes in the body and their effects cause differences (inter-individual and intra-individual) in alcohol metabolism determining the susceptibility to alcoholism. Receptors for benzodiazepines also have etiological significance; some blocking agents have been identified that, instead of working centrally, have peripheral effects. Their effect on the autonomic nervous system provides some clues to the etiology of drug abuse. The mechanisms behind dependence, tolerance and withdrawal states are the subject of a variety of research activities; these include, among other things, changes in gene expression of endogenous opioids, alter-

ations in intracellular Ca^{2+} concentration, variations in receptor numbers or affinities and alterations in the rate of the synthesis of cyclic adenosine monophosphate (CAMP).

Presence of physical illness or complaint

For years, drugs, particularly opium, have been used for alleviating pain and physical complaints relating to different illnesses. This practice still continues and, particularly in areas with poor access to health facilities, becomes a cause of drug dependence.

Individual psychological factors

Most of the studies in this area focus on alcohol and opioid dependence. Nobody can say whether the psychopathological and personality changes seen in drug dependent individuals are a cause or an effect of their drug dependence. However, it is generally believed that some types of personality are more prone to drug dependence. These include hostile dependency, high level of anxiety in interpersonal relations, low frustration tolerance, and low feeling of self-value or self-esteem.

Agent

An agent is a pharmacologically active chemical compound, with or without recognized scientific medical use, which is consumed for its psychoactive properties. Pharmacology effects of different agents differ. They may be central nervous system stimulants or depressants. They may get absorbed easily or with more difficulty and they have different routes of administration. Susceptibility to an agent may have a number of causes including biological and even genetic ones.

Although it appears that all statements regarding the influence of biological and environmental factors become invalid in the absence of an agent, certain conditions can make the ground so fertile for drug abuse that in spite of all measures, agents find their way

to the scene sooner or later. Classically, the factors relating to an agent (or drugs) are availability, cost or legislation.

Availability

The simple formula that the more available a drug the greater becomes the number of dependents is generally true, but it hides very complex issues regarding supply and demand. One aspect of the complexity that needs to be studied is the question of cross availability, meaning the impact the prohibition of one substance may have on demand for other substances. It is also necessary to study the impact of different aspects of demand and availability. Availability of legal, medically prescribed substances, depends on prescribing practices and control measures on pharmaceuticals.

The relationship between cost, availability and dependency is also a complex one. Increased law enforcement and the successful seizure of more illicit drugs increases prices for alternative substances, this in turn may decrease the number of addicts, decrease the purity of drugs consumed and the amount used at one dose. It has been observed in some countries that a successful police crackdown on drug dealers and street drugs may cause undesirable effects such as the spread of drug injection and HIV among those users who go underground and try to obtain the maximum effect from drugs with increased street prices.

Laws and regulations

These can aim to punish the drug dealers and drug dependent individuals or to regulate the production and distribution of medically used drugs. Harsh measures against the dependent population have rarely proved to be effective. Laws against drug traffickers should take into account the history and existing position of the country involved. For example, in a society with a long tradition of

opium or cannabis abuse, harsh measures against these substances may indirectly increase the abuse of other more powerful and damaging drugs.

Social and environmental factors

Social and environmental factors need to be taken account of. Society determines both the supply and the demand for drug abuse and sets norms of behaviour which are important in understanding the trends and patterns regarding the use and abuse of drugs. Although it is not easy to measure the effects of many complex interacting forces which together make up the influences of society, the most important of them are as follows.

Breakdown of accustomed life structures

The breakdown of villages, increased internal migration and the resulting appearance and enlargement of shantytowns around large cities are among important social elements which both increase demand and provide a fertile ground for suppliers. One special problem is the migration of male members of the family to richer countries in search of better work and more money, leaving the family behind. Absence of the father figure along with easy availability of money sent from abroad may encourage adolescents towards a more promiscuous lifestyle, including use of illicit drugs.

Economic factors

Apparent or hidden unemployment, non-profitable farming or enterprises and lack of incentives to initiate new enterprises are all among conditions which, in spite of the illegality make drug trafficking desirable. Drug dealing is among the most profitable transactions in the world, and a complex network of people can become involved in it.

Culture

Cultures may deal with drug-related problems in different ways. The attitude of a particular culture may differ depending on the drug being used; cultural attitudes towards drugs also change with time. Cultural attitudes towards a drug can take different forms. For example in some societies the attitudes towards alcohol may be one of complete abstinence, whereas in other societies alcohol may have a ritualistic or ceremonial use. Others use alcohol on social occasions and for convivial use.

Family

Parents and siblings can function as role models. Parental attitudes towards drug taking sets the emotional and moral attitude of the family towards particular drugs. Parental absence, either through separation and divorce or through death, brings with itself a higher risk of many emotional and personality problems, including drug abuse. Absence of love, affection and positive family interaction can also contribute to problems which in due turn may cause drug dependence.

Group pressure

It is not quite clear if peer groups are a cause or the effect of substance abuse. They are probably important in the initiation of drug abuse but less important in maintaining it.

The social setting of drug abuse

The social setting, which includes special physical arrangements and the participation of particular people, may reinforce continuation of a drug habit. In some societies there are distinct groups of addicts who may even enjoy good social status and drug taking is a part of their membership to a semi-respected, semi-clandestine group of friends which functions like a club, in which nonparticipation means disloyalty.

Figure 1 summarizes with a holistic approach the interaction between different causes or antecedents of substance abuse and its consequences [9].

Treatment issues

The 30th WHO Expert Committee on Drug Dependence, Geneva, 1996, [10] defined treatment as the process that begins when psychoactive substance users come into contact with a health provider or other community service, and may continue through a succession of specific interventions until the highest attainable level of health and well-being is reached. Treatment and rehabilitation are defined as a comprehensive approach to detection, assistance, health care and social integration of persons presenting problems caused by a psychoactive substance use. This definition recognizes that substance users are entitled to be treated with humanity and respect. It uses the broader concepts of rehabilitation adopted by United Nations agencies such as the International Labor Organization, United Nations Educational, Social and Cultural Organization and the World Health Organization. It includes the equalization of opportunities and community involvement and is compatible with the WHO objective to attain the highest possible level of health for all people.

The objectives of treatment are:

- to reduce dependence on psychoactive substances;
- to reduce the morbidity and mortality caused by, or associated with, the use of psychoactive substances; and
- to ensure that users are able to maximize their physical, mental and social abilities and have access to services and opportunities and achieve full social integration.

Additional objectives that some countries may choose are:

- to reduce criminal and antisocial behaviour;
- to reduce users' dependence on public (i.e. welfare) support; and
- to increase productive, legitimate activities.

Intervention strategies

Acute intoxication

The signs and symptoms of acute intoxication may differ according to the substance. Other factors like dosage, previous illnesses, route of administration, contamination and context of use may also affect the form and degree of intoxication. All different levels of care from community to specialized centers should have some expertise in dealing with conditions of acute intoxication. This expertise may differ from community to community according to the kind of substances used and prevalence of the problem.

A national programme for treatment and rehabilitation must contain a description of responsibilities assigned and necessary training for each level. This would include the use of pharmacological methods like antagonists or medications reducing the pathological symptoms. These are specific according to the substances used or according to symptomatology. Although psychosocial support of the recovering individual is necessary to decrease the probability of dangerous consumption patterns, treatment of acute intoxication should not necessarily be conditioned to the existence of such psychosocial support.

Treatment of acute intoxication with narcotics is a procedure that should be available at primary health care settings in countries where the use of narcotics is prevalent. In addition to immediate life saving measures, like keeping the airway and a vein open, and

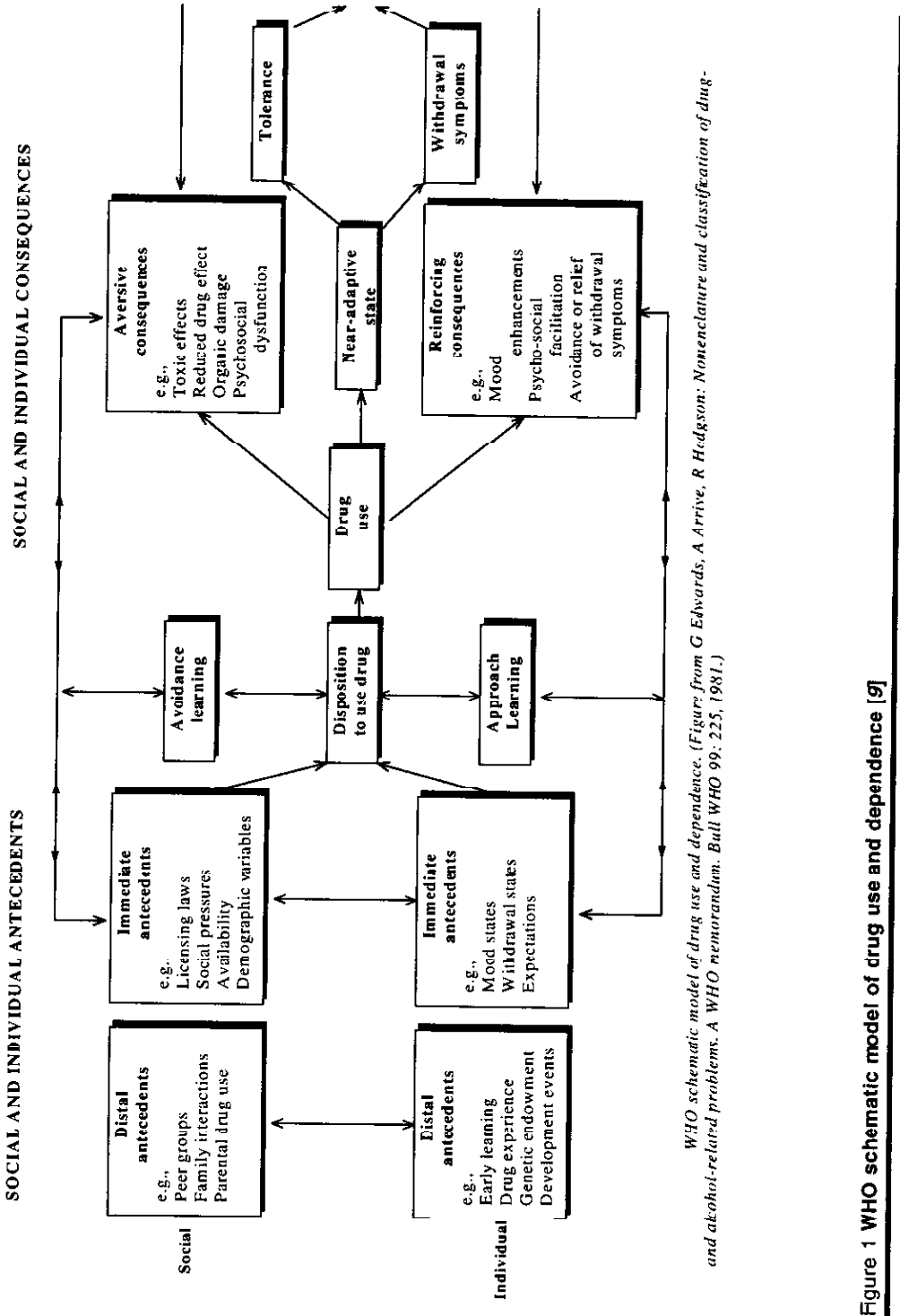


Figure 1 WHO schematic model of drug use and dependence [9]

whenever necessary the use of mechanical ventilation, intravenous naloxone should also be used at a slow rate. A response to the initial dose is seen in a few minutes. In people who are dependent on narcotics signs of severe withdrawal may be seen upon administration of naloxone. The signs of a positive response to naloxone are dilation of the pupils and increased respiration rate.

Hazardous and harmful use

The 28th WHO Expert Committee on Drug Dependence, Geneva, 1993 recommended replacing the term *drug abuse*, which was felt to be ambiguous, with the ICD-10 term *harmful use* [11]. *Harmful use* is a pattern of psychoactive substance use that causes damage to health, either mental or physical. An assessment of adverse health effects is necessary before such a diagnosis can be made. Also, one should identify risky behaviour, such as aggressive or sexually uninhibited acts. Early detection of the harmful use of dependence-producing substances is essential for prevention of clear cut addiction and side effects like the transmission of HIV infections through syringes.

Dependence syndrome

This is a cluster of physiological, behavioural and cognitive phenomena of variable intensity in which the use of a given psychoactive drug, or class of drugs, is assigned a much higher priority than other behavior that once had a higher value. No clear cut-off point exists between dependence and non-dependent repeated use. At the extreme, the dependence syndrome is associated with compulsive drug-using behaviour.

Treatment of dependence generally includes a rather short period of detoxification followed by a long period of rehabilitation. The relapse rate for people detoxified in inpatient, purpose built facilities is good. However, in countries where drug addiction

is a major health issue it is not possible to provide everybody with such facilities. Therefore, except for alcohol, barbiturates and benzodiazepines, the process of withdrawal must be handled on an outpatient basis. A general caution regarding opium and heroin dependents is that they tend to show less successful continued abstinence when treated on an outpatient basis.

Whenever dependence syndrome is diagnosed, the main roads to overcome such a syndrome are psychosocial and behavioural interventions aimed at a substance-free lifestyle. Pharmacological methods can only function as a support for other interventions. The decision to use substitute agents like methadone should be taken at national level, and in many cases such a treatment is not feasible for a variety of reasons. But substitution choice should be available for those individuals whose lives may be endangered by withdrawal. The thrust of substance dependence treatment should be on long-term efforts, in a package with rehabilitation, and should be planned in the form of a national strategy.

Withdrawal states

Withdrawal states are a cluster of substance-specific signs and symptoms that occur upon discontinuation of a psychoactive substance in a dependent person. They can happen spontaneously or in detoxification procedures. Withdrawal from barbiturates, alcohol and benzodiazepines may develop into severe and even life-threatening syndromes. Withdrawal from narcotics is not deemed to be life-threatening, but experience shows that in the elderly and dependent people with pre-existing serious physical illness it can be potentially dangerous. Therefore, in the management of withdrawal states and in all detoxification programmes these risks should be taken into consideration.

The availability of adequate medical services is important. Learning how to accurately monitor is essential, and pharmacological treatment may be necessary. It must be remembered that successful treatment of withdrawal states does not prevent the individual continuing substance use. Relapse prevention methods must be considered, using all available resources, and particularly informed self-help structures and non-professionals and volunteers.

Psychiatric disorders

Comorbidity of psychiatric disorders like paranoid psychosis, depression, amnesic syndrome and confusional states, with substance abuse, is quite common. The psychiatric disorder may be precedent to or as a consequence of, substance abuse. Such psychiatric conditions should be treated independently as a primary condition, a concomitant disorder or as a consequence of substance abuse. If the illness is a consequence of substance abuse, abstinence is the first recommendation. Such comorbid states should be a part of training courses for primary health care settings whenever applicable.

Somatic disorders

Somatic disorders in persons with drug dependence can be independent or a consequence of dependence. An example of the second type is liver cirrhosis secondary to chronic alcohol dependence, emphysema evident with chronic tobacco smoking and some reports of a relationship between opium smoking and bladder cancer.

Chronic disabilities

Substance abuse may cause impairment of psychosocial functioning, physical health and quality of life. Such conditions require long-term management and rehabilitation. Proper assessment of the needs and condi-

tions surrounding each individual case is necessary. Care should be as supportive and nonstigmatizing as possible.

The general principles in provision of such help are as follows:

- Interventions are useful if they respond to individual needs and situations.
- Adequate assessment of needs in a given situation, of variable interventions and of their acceptability to the addict. The successful completion rate of withdrawal on an outpatient basis is low for these substances.
- Cost-effectiveness of prevention, treatment and rehabilitation has been the subject of some controversy. Most cost-effectiveness studies have been done without consideration of measures related to quality of life. If one considers a wider range of individual, family and social benefits in terms of improvement of quality of life, prevention of crime and delinquency, and measurements like quality adjusted life years (QALY) and health life year equivalents (HLYE) to the already existing quantitative measurements, the true cost effectiveness would be more evident.
- In spite of all the existing literature regarding a variety of ways to deal with the problem of substance use, nobody still has all the answers. It is a complex phenomenon that should be dealt with through a multisectoral, integrated, open minded approach. Attention should be given to both the supply and demand sides. Close transparent and sincere collaboration between supply and demand sides is necessary if a programme is going to have a visible impact, which is essential for the effectiveness of intervention.
- Professional treatment and nonprofessional interventions and support can ef-

fectively complement each other. Joint and comprehensive intervention planning and monitoring increase the effectiveness.

Concluding observations on treatment and rehabilitation

In spite of the fact that a wealth of literature exists on different aspects of the treatment of substance abuse, many issues are still unresolved. Many social, political and economic aspects of substance abuse are beyond our regular interventions and those of different governmental and nongovernmental sectors dealing with substance abuse. A clear international political will, capable of looking at the problem in a truly holistic and realistic way is necessary. The international community should face the problem of drug dependence with courage and transparency; decide once and for all to depoliticize all aspects relating to this issue and treat it as a menace to the global community. Decisions in this regard should be taken open-mindedly and no solution or suggestion should be rejected without thorough examination and nonbiased consideration. In this respect treatment and rehabilitation should always be linked to a comprehensive substance-related policy.

Substance abuse also has social, political and economic aspects, therefore any time we talk about treatment we should remember the need for a holistic approach. It is based on these facts that a resource oriented strategy is being proposed.

Resources against drug and alcohol-related problems

The potential resources to combat drug and alcohol-related problems are many. Some have been tried frequently and without much success, some have shown to be more promising. This paper does not focus on those re-

sources, which are mainly effective in reducing the supply of drugs, instead the main focus shall be on the demand side.

Identifying available resources is an important task. Combating drug dependence by identifying complex hypothetical causes does not seem to be a wise strategy. Instead, by identifying resources and making an estimation of their usefulness, realistic and attainable flexible goals can be set. These resources can be summarized as follows.

Religion and faith

Religious faith is among the most influential factors affecting human behaviour. Religious beliefs and allegiances are among the most enduring of all human value systems. Religions preach harmony, brotherhood, subservience to God and are opposed to many behaviours which cause health hazards. Almost all countries in the Region are Islamic countries and many Islamic laws and principles oppose drug abuse. The consumption of alcohol is prohibited in Islam and the use of mind-altering drugs is also strongly discouraged and even prohibited.

Religious teaching and the influence of religious leaders can be utilized to combat drug abuse. This should be done with very careful planning and as an integrated part of a comprehensive programme. Special training is necessary, and trainers' attitudes should adjust to the specifications of each given community and group of religious leaders.

Islamic teachings can function as a great asset in combating substance use. However, one should remember that preaching alone is unlikely to change the existing behaviour of an addict or deviant. It is best to take the positive messages of religious teaching and incorporate them into a comprehensive programme. Among these are the strong concept of responsibility that individual and society (*umma*) have towards each other. The procla-

mations on prohibition of anything that is harmful to health can be used in prevention campaigns. Mosques and other religious places can be used as assets to recruit volunteers.

Family

The family is the cornerstone of social life. It has strong emotional, economic, religious and judicial significance. It is probably the oldest and most enduring of human institutions. Parents and other family role models can contribute greatly to value systems. The way they treat children, both individually and as a group, has a great impact on the future self and world view of the children.

The proclamation by UN of the year 1994 as the Year of the Family points to the recognition of the ever increasing importance of the family in all human activities. The renewal of interest in the role a family can play comes after decades of uncertainty and even doubt about its importance. This calls for new, innovative approaches to use this strong institution more effectively for promotive and preventive health purposes, particularly in drug abuse.

Schools and universities

Schools are social institutions of great importance. Every member of society has a vested interest in the school system at some time in their life. Everything relating to a school, the physical structure, curriculum, teachers' job satisfaction and teacher-parent associations have a tremendous impact on society as a whole.

Until recently, school health programmes have been passive, mainly providing some diagnostic-therapeutic services. This attitude does not allow the using of school as a promotive and preventive resource. It is important to look for new ways of using schools to combat drug abuse. Schoolchildren are also very vulnerable to the dangers of drug abuse and any preventive programme involving

schools is in danger of functioning as a double-edged sword by increasing the children's curiosity. Perhaps schools can best be used as models of communities with healthy lifestyles. With the support of WHO, a number of the countries of the Region—Egypt, the Islamic Republic of Iran and Pakistan—have already started school mental health programmes with emphasis on a healthy lifestyle and prevention of drug abuse.

Employment

Employment offers economic certainty and hope for the future; less stress, better self-esteem, stronger family life and disciplined schedules, to mention just a few. Whether the workplace is an office or factory, a farm or school, it offers important social systems. People's habits are formed and changed by their work. The workplace is a great resource in many areas relating to the drug abuse, particularly for prevention and promotion of a healthy lifestyle.

National will

Without any exception, the national will of all nations is opposed to drug abuse. There is a need to consolidate this will through the media, legislation and government action.

Media

In relation to drug abuse, the media may also be a double-edged sword. On the one hand, they are an indispensable means of relaying information; on the other, they can become a means of increasing curiosity and even desire for drugs. On balance, however, the advantages of the media in the campaign against drug abuse outweigh the disadvantages.

The existing health infrastructure

This is an important resource for prevention, promotion, treatment and rehabilitation. It should be utilized according to the country's particular health policies and structure. The

idea of separating drug and alcohol-related problems from the rest of the health system has not worked well in most places. In countries and areas where mental health is integrated into the primary health care system, drug prevention, treatment and the rehabilitation of drug dependent people, should become a part of the primary health care system as far as possible.

Academic community

Health professionals and social scientists can contribute towards training and research in programmes for the control of drug abuse and can serve as role models. The academic community is both influential and in direct contact with the youth. Particularly important are medical schools, schools of psychology, sociology, social work, sports, law, literature and policy academies.

Medical and psychiatric facilities

Medical and psychiatric facilities in both the public and private sectors are among the assets which can be utilized in all areas related to substance abuse, particularly in areas of acute intoxication, detoxification, prevention of relapse, training and research.

Nongovernmental organizations

Nongovernmental organizations cover a wide range of religious, charitable, commercial and community-based groups, which form the venue for many activities which can affect varied areas of supply and demand. Their activities need to be given clear objectives and directed towards concrete results in the formation of a framework of comprehensive, nationwide programs. Their assets can be utilized in many areas of prevention, treatment and rehabilitation, such as establishing treatment centers, finding employment for ex-addicts, helping families to cope with drug-related problems and providing the youth with activities for their spare time.

International organizations

Many international organizations are actively working on different drug-related problems. The General Assembly of the United Nations has declared the last decade of this century the Decade against Drug Abuse. This is also a decade to promote the values of healthy family and lifestyles.

Law enforcement

The enforcement agencies are involved with different aspects of the abuse of drugs. The training of different levels of law enforcement personnel is of utmost importance in the control of drug abuse. This training should not be limited to police excise and judicial subjects, but it must also include subjects related to the bio-psychosocial aspects of drug abuse.

Drawing up a strategy for action

By reviewing different health-related aspects of substance abuse, it becomes evident that:

- Causes of drug abuse are complex, interconnected and at times unreachable. Many of these are related to factors beyond the boundaries of the health sector alone. Therefore, the strategic approach based on the causes alone lacks a good chance for success.
- It is unwise to induce high expectations by suggesting grandiose, unrealistic goals and approaches in such a complex area as drug abuse. Workable strategies should stay away from rhetoric and concentrate on what is possible. Plans of action and activities should be well-defined and have clear objectives.
- The causes of drug abuse are diverse and completely interwoven, as are the resources to combat it. Identifying these resources and building plans and pro-

grammes upon them seems the most promising way forward.

- A regional programme should take into consideration both the similarities and differences which exist in different countries of the Region regarding questions like the type of drugs being abused, administrative arrangements, health policies and cultural background. The programme should be flexible enough to allow for all these considerations.
- One of the most effective and important elements of health infrastructure, which can be utilized in programmes to combat drug abuse, is the existing general and mental health policy and programme in each country. Where mental health is already integrated into the general health system, this may be done by the inclusion of some preventive, diagnostic, therapeutic and rehabilitative measures regarding drug abuse being carried out by primary health care personnel at different levels. Additional approaches linked with urban and school mental health programmes can also be initiated. Some preventive and therapeutic services can be offered in conjunction with noncommunicable diseases programmes and programmes for maternal and child health or healthy lifestyle.

Strategies for action

Based on the above analysis, the following strategies seem particularly relevant for the control of drug abuse in the countries of Region, as already identified in the technical paper *Promotion and protection of mental health* (EM/RC35/15/1988):

1. Development of clear national policies and programmes linked with national health plans, covering both supply and demand aspects.
2. Coordination of various sectors dealing with drug abuse problems, e.g. health education, social welfare, police, the legal and judicial system, religious groups and nongovernmental organizations.
3. Emphasis in health education on the promotion of healthy lifestyles and the prevention of drug abuse.
4. Reinforcing religious teachings which support healthy lifestyles and reduce the demand for drugs.
5. Inclusion of tobacco in drug abuse control programmes and using antismoking campaigns as an indirect approach to drug abuse in general.
6. Developing drug-dependence treatment services integrated with mental health and general health services and not isolated from the general health care system.

Annex I

Important international treaties for the control of narcotic drugs and psychotropic substances [3,4,5,13]

Single Convention on Narcotic Drugs, 1961 and that Convention as amended by the 1972 protocol

Since the beginning of this century, efforts have been made to develop international control on opium and other dependence-producing drugs. The first International Opium Convention was signed at the Hague in 1912. In the next 50 years, eight more international conventions, agreements or protocols were signed to control opium and other narcotic drugs. Finally, under the guidance of the United Nations, a Single Convention on Narcotic Drugs was drawn up in 1961, terminating all previous treaties. This treaty regulates the production, medical use, international trade and all other related aspects for the na-

tional and international control of opium, cannabis, cocoa leaf and their products. With the experience gained, the convention was amended by a protocol of 1972, to make it a wholesome instrument for covering all aspects of narcotic drugs. Among the countries of the Region the following are the signatories to this convention on 30 April, 1998: Afghanistan, Bahrain, Cyprus, Egypt, Islamic republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Republic of Yemen. Out of the above countries, Afghanistan, Islamic Republic of Iran, Morocco and Pakistan are only signatories to the main convention and not to the convention as amended in 1972.

Convention on Psychotropic Substances, 1971

Though the Single Convention of 1961 covered various aspects related to the control of the so-called "narcotic" drugs, many countries started becoming aware of the new danger posed by the sudden explosion of knowledge in the field of psychopharmacology. Since 1950, hundreds of psychotherapeutic drugs and other psychoactive compounds have appeared in the markets of all countries. Many of them have great potential for producing dependence and causing other health damage. While the narcotic substances controlled by the Single Convention of 1961, namely, opium, cannabis, and coca leaves, were all naturally grown vegetable products, mostly from the developing countries of Asia, Africa and South America, the new psychotropic substances were synthetically produced, mainly in the laboratories of developed countries of Europe and North America.

Responding to pressure of Member States, the United Nations drew up an additional Convention on Psychotropic Substances which was adopted in Vienna in 1971. One significant feature of this new Convention is that all the psychotropic substances have been divided into four schedules which assess their medical use and potential for harm: Schedule I drugs, needing maximum control; Schedule IV drugs, needing minimum control. There is a mechanism for regular review of these drugs by WIIO and recommendations are made for additions, deletions or change of schedule category which are finalized by the UN Commission on Narcotic Drugs. The following countries of the Region were signatories to this convention on April 30, 1998: Afghanistan, Bahrain, Cyprus, Egypt, Iraq, Jordan, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Republic of Yemen.

United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

This convention covers money laundering, extradition, seizure of illegally gained assets and profits, etc., in addition to controlling precursors and essential chemicals used for illegal manufacturing of narcotic and psychotropic drugs. The following are those countries of the Region who were signatories to this convention on 30 April 1998: Afghanistan, Bahrain, Cyprus, Egypt, Islamic Republic of Iran, Jordan, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, United Arab Emirates and Republic of Yemen.

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