Pompidou Group
Co-operation Group to Combat Drug Abuse and Illicit Trafficking in Drugs

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Young people and Drugs

Care and Treatment

Summary

Since the beginning the leading principle of the Pompidou Group (PG) has been to combat abuse and illicit trafficking in drugs. PG supports and contributes to the international and national efforts in this field as well as focuses on quality of European drug policy. Through linking policy, practice and science PG promotes evidence-based approaches, effective law enforcement and judicial measures, innovative drug prevention and drug treatment models as well as ethical and human rights issues.

The bridging role of PG in the scope of European drug cooperation enables policymakers and experts of both the European Union and non-EU member states to participate in open, non-political debate, exchange practical and scientific experience and promote standards of good practice. Free, open forum for debate serves to highlight new developments and identify new challenges and needs. In order to fulfil its mission PG has established six expert committees called 'Platforms'. One of the Platforms is dedicated to treatment problems.

There is a generally shared consensus among European countries that consumption of drugs poses a number of serious problems to society, particularly in relation to individual and public health.

There are thousands of drug users in Europe. Although data on the subject are widely available, they may vary significantly depending on various factors.

Opposite trends in local and regional regulations, political and cultural limitations and different patterns of consumption make it difficult to formulate general and the only true statement on the drug approach in Europe. However, there is a general consensus that drug consumption among teenagers not only poses a threat to the future generations but also requires immediate response to the current situation.

This publication prepared by a group of experts is addressed to a wide range of recipients both policymakers and persons directly involved in drug treatment.

The platform undertook to tackle the issue of care for minors due to the increasing scale of the phenomenon as well as the health and social consequences. It has been considered a common problem for all European countries.
In the early stages of works there was a problem of different understanding and use of vocabulary, definitions and terms used by participating platform experts in describing drug treatment phenomena and methodology. The problem was solved through including into this publication a chapter on key definitions.

Epidemiological data provide a basis for the estimation of the scale and range of the phenomenon. Following trends and patterns of consumption makes it possible to assess treatment needs and in consequence planning remedial actions at different management levels

ranging from local through regional and national to international. Planning and implementing successful care for drug-endangered individuals requires identifying the drug problem among other social problems and searching for remedial actions based on recognizing the broadly understood problem of use of psychoactive substances such as tobacco, alcohol and pharmaceutical drugs.

Another element of planning successful treatment actions is the evaluation of factors helping or preventing young people from using addictive substances. Referring, in treatment programmes, to both risk and protective factors related to biological, psychological and social and environmental aspects allows for a better diagnosis and planning therapy, which must always include individual conditions and capabilities of individuals benefiting from outreach services.

In order to reach a significant influence on the behaviour of drug users one must build contact with these persons. It is of vital importance to create access paths to individuals remaining outside the outreach system with a view to encouraging them to use available outreach services. Apart from conventional actions media of mass communication should be taken advantage of. **Information programmes, counseling** and outreach programmes should make use of the Internet and mobile communication. Using modern technologies of making contact, apart from outreach and motivational techniques, should also be the subject of training courses for outreach and therapy personnel.

Adopting advanced screening and assessment techniques allows for supporting the treatment process with a severity analysis of drug problem. It provides diagnoses adequate to the needs and facilitates planning therapeutic process based on collected information.

Screening techniques related to consumption of psychoactive substances should be used not only in the case of contact of young people with the drug outreach services but also in other life situations that may be linked to drug use such as entering psychiatric treatment system or contacts with juvenile justice system.

Treatment and planning require applying approaches including chronic and complex nature of addictions. Planning and implementing treatment should also include biophysical, cognitive, emotional, moral and social conditions and aspects of drug use.

Existent forms of therapy should be based on techniques and forms of scientifically proven effectiveness. Such instruments include brief intervention, motivational intervention, cognitive behavioural therapy, types of family therapy. In the case of severely addicted individuals long residential treatment proves successful. All forms of treatment should use pharmacotherapy as an action increasing chances of reaching permanent improvement of health.

It is recommended that drug therapy be continued and monitored both in progress and after completion. Therapeutic process goes from the contact moment through screening and assessment, counselling, treatment, result monitoring and providing support. Active participation

of policymakers in planning and development of outreach services availability is necessary for all of these elements to be implemented. These actions should be accompanied by the process of training professional personnel dealing with drug therapy.

An integral part of treatment process should be detection of co-morbidity related to substance abuse. Early and correct diagnosis of psychiatric disorders coinciding with consumption of psychoactive substances as well as adequate implementation of remedial actions results in higher treatment success rate. Early and correct diagnosis of psychiatric disorders also plays a preventive role in persons that may make drug-related suicide attempts.

Outreach services are starting to include pregnant drug users. Drug treatment programmes should broadly include their life and therapeutic needs. Comprehensive drug treatment must comprise components related to medical, psychological and social interventions. Continuity of care for this group of patients should translate into continuity of care for young mothers and their newborn children.

Members of the "Treatment" platform and the authors of this publication recommend providing access to modern and well-documented by research and good practice forms of outreach services addressed to young drug users as an effective tool of reducing individual and public health threats.
Outreach process addressed to **young people** and their families is also a form of developing preventive actions that translate not only into the reduction of threats directly related to consumption of psychoactive substances but also limitation of drug-related social nuisance as well as the improvement of public safety.

Consumption of drugs by **young people** is a common problem of all European countries. The development of outreach and care services for drug users calls for well-coordinated actions to be taken by international institutions and national governments. Planning and implementing the above should include opinions of researchers, professionals and anti-drug policymakers.

Foreword

The Council of Europe's Pompidou Group was set up as a multidisciplinary cooperation group whose aim is to prevent drug abuse and illicit drug trafficking in Europe. Its function is to contribute to the acceptance of a sound anti-drug policy in Europe by providing a forum which allows policy-makers, professionals and researchers to meet and focus on current problems at grass-roots level.

To this end a total of six groups, referred to as platforms, have been set up (criminal justice, airports, prevention, ethics, treatment, research/epidemiology) and staffed with experts who have many years of pivotal experience in their fields. Their task is to examine specific questions, to highlight current developments, and to provide recommendations for policy-makers.

This publication was written by the 'Treatment' expert group which focused on the subject 'Care of young people using drugs'. It was defined that 'young people' are those between 13 and 25 years of age. The authors further subdivided this age into two sub-categories, namely the 13 - 17 and 18 - 25 years of age, which more closely reflects reality and current developments. The Experts were unanimous in that due to increasing drug use in Europe, particularly among young people, it is crucial that all search jointly for new ways to solve problems related to psychoactive substance-use in young people. Literature on drug problems of youths available in Europe is rather scarce, and the possibility of learning about new approaches and solutions applied in solving these drug problems in different European countries is still limited. The publication is intended also for all people who directly have to do with young people with problematic drug use, such as physicians (GPs), psychologists, pedagogues, addiction-care specialists and teachers.

The publication contains the following chapters which comprise an independent whole but can be read separately, each with conclusions and recommendations.

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Introduction

Neil MacLean, Thomas Egli, Jolanta Łazuga-Koczurowska

In European countries there is a widespread, unopposed consensus that using illicit drugs is harmful, both for the individual and indirectly for society as well, and that for this reason their manufacture and distribution should be specially controlled, in some cases forbidden, and drug use which is harmful to health should be prevented or restricted.

Against this background, a number of countries have pursued a variety of strategies, ranging from ignoring the problem, education campaigns and tentative moves towards liberalization to an all-out 'war on drugs'. One feature common to them all is that none of them has succeeded even remotely in solving the 'drug problem'. On the contrary, with a few exceptions there has been a general increase in drug use – and with it, of course, production and commerce – particularly among the young people on whom this study focuses.

Any attempt to get to grips with this massive problem – there are millions of drug users in Europe –usually starts by recounting the phenomena which have been observed (Reitox, EBDD) in connection with the use of drugs, their production and their distribution. Although there is an overwhelmingly large body of information available from the various countries, this information varies both in quantity and in the way the data are recorded. Moreover, some sources report opposite trends in substances, patterns of use and the age of users in different countries. This makes it difficult to formulate general statements on the drug problem in Europe, and equally difficult to make general recommendations for solving it.

The majority of young people are developing adequate social competence. However, a minority are unable to cope with the various influences, deficiencies and pressures to which they are exposed. Adolescents are most vulnerable to the harmful influence of drugs. Drugs are not perceived as something harmful thus increasing the probability of dependence. The possibility of contact with drugs is increased by specific needs related to the developmental characteristics of the period of adolescence. One is the orientation on peer groups including the related constraints and decisions, also curiosity, search for new sensations, search for one's own uniqueness. They are no longer children and therefore have no longer access to the help and support systems that exist for children. Furthermore, a variety of factors mean that they do not yet have independent access to adult help and support systems. This group is the subject of this study.
One of the main targets of our work will be to highlight the issue of access to prevention treatment and rehabilitation systems and improve it if possible. The problem is compounded by the fact that the factors – unemployment, homelessness and lack of access to education and training to name the most important – vary greatly in different parts of Europe.

The factors that encourage and perpetuate drug use can for the most part be identified. Some of them are of a societal nature ('addicted families', unemployment, deficits of promising perspectives in life); some are geopolitical and not necessarily open to intervention (the rapid increase in opium cultivation in Asia), although they are also due to some extent to the market economy (the enormous profit margins in trading drugs). The focus of attention is, however, the situation of the affected individual in his or her health within a social and economic context.

Dealing with the 'drug problem' means dealing with individuals, addicts, patients, and, if the problem is to be understood and treatment is to succeed, it is indispensable to know and understand each person's motivation for using drugs.

Drug use goes a long way back in the history of mankind. The drugs have almost always been psychotropic agents, they have been around for at least 10,000 years, and they have been used regularly in practically all societies. Drugs may have been originally consumed in a spiritual and ritualized context. The practice was handed down by elders or shamans and was accepted in this form by society. Individuals sought occasionally to transcend human boundaries, which were perceived as being restrictive, and to bond with heavenly forces in the search for assistance, advice and inspiration. However, there is no reference to a 'drug problem' anywhere in the extensive ethno-pharmacological literature.

This approach to using drugs does not exist in the Western world. Apart from alcohol and, to a diminishing extent, tobacco, there are no drugs whose use is tolerated publicly or institutionalized. There are accordingly no recommendations for using drugs in a less harmful way than they are used today. In this way, the use of drugs is turned into an individual matter and can thus lead to the individual's withdrawal from social communication. Drug use in turn becomes individualized and usually problematic. This makes it more difficult to identify problematic drug use in the early stages and thus to offer help or therapy before health or social damage ensues. This applies particularly to the very young people on whom this study focuses.

Despite the differing prerequisites, two key points are worthy mentioning. Firstly, early neglect, parental addiction, homelessness, sexual abuse, criminality and poverty are generally considered to be the biggest risk factors. Secondly, organised, professional support services at all levels (social, the courts and education) backed up by trained laypeople in the church, self-help groups, etc. can recognise, intervene in and diffuse (alleviate) problematic trends.

Collaboration in treatment, harm reduction and law enforcement are very important during the phase when problems are starting to occur.

The support system is relatively quick to recognise conspicuous young people. The problem is more difficult with young people who are as yet still not integrated, but already consume large quantities of drugs, without this being noticed. The possibility that these young people have the option or resources to tackle their problems outside public dependency treatment structures is unlikely.

Criteria for comprehensive analysis of the individual case

The following factors have to be taken into account:

1. General development
    - Stage of physical development
    - Stage of emotional development
    - Current phase of life (detachment from core family, new responsibilities and independence)

2. Risk factors

- Unemployment
- Dropping out of school
- Homelessness (sociocultural status)
- Criminality (legal status)
- Lack of perspectives
- Access to drugs
- Lifestyle
- Experience of violence/abuse
- Parental addiction to drugs or alcohol

3. Protective factors (existing resources)

- Family
- Job/school (educational and sociocultural status)
- Leisure-time activities
- Relationships

Depending on whether they are positive or negative in character, protective factors may become risk factors and vice versa.

Possible goals of treatment/intervention:

- Professional and social integration
- Stabilisation
- Improvement of health status
- Change of environment
- Emotional development (maturing)

A number of methods and avenues are suitable for achieving these goals, depending on objectives and needs. Goals may also constantly change or undergo modification in the course of an intervention. Goals are formulated in conjunction with the client and are largely dependent on the availability of resources and the client's current situation and capabilities as well as on the available services. Consequently, both subjective and objective needs and situations have to be taken into account.

Goals, methods, networks

Factors in providing effective aid:

- Clear role distribution among the authorities
- Networks / cooperation
- Improving the skills of volunteer social workers
- Easily understandable clear messages
- Identification of the most urgent (pressing) societal phenomena (alcohol, cannabis, illegal drugs, solvents)
- The networking of teachers, educators, social and medical services as persons with the earliest contact with problematic young people

It is important to incorporate and network all available support resources to facilitate support at various levels:

- Peer groups
- Family/next of kin
- Church
- Psychological counselling
- Penal system
- Children's advocates

The type of help provided may vary according to needs and objectives:

- Low-threshold harm reduction
- Early-stage intervention
- Quitting or substitution

Indication / triage:
Since it is impossible to define a standard form of treatment or intervention for this target group, identifying the problems and goals in each case and country and planning subsequent treatment or interventions is essential for the success of the intervention. Between each case and an national strategy there is a community level, where diagnosis and networking can be very successful, e.g. in round tables and concerted actions response action teams – school, parents, police, social services, prevention and therapy teams etc. who care about problematic young people and groups. They also promote opportunities for development and look for alternatives to criminal prosecution. And last but not least to fight against general resignation in neglected areas and communities.

Other issues to be considered:

1. Defining the boundaries or interface between treatment and prevention (secondary and tertiary prevention)

2. Gender and migration (keyword 'open Europe' – cultural (disintegration)

3. How to reach the target group (establish contact)? Hidden populations that cannot be reached because they never have contact with dependency aid institutions. Inhibition thresholds block contact, and it is possible that this age group is more unaware than most of the existence of problematic behaviour.

About the authors:

Neil MacLean was born in Heidelberg in Germany and studied in Berlin. At present he is a general practitioner in a private practice where he specialises in addiction medicine.

Thomas Egli was born 1954 and has been working for over 17 years with addicted men in a socio-pedagogic field. At present he works for the Swiss Federal Office of Public Health, as a senior policy advisor, responsible for Therapy and Harm Reduction.

Jolanta Łazuga-Koczurowska - clinical psychologist, psychotherapist, certified addiction care specialist. Since 1972, she has been working with addicted people. The author and leader of numerous prevention and treatment programmes for children and adolescents with drug problem. Among them is the programme in Gdańsk (Poland), based on therapeutic community method, „Find Yourself' which has been evaluated as highly effective. For the last 30 years, she has been an academic lecturer at the University of Gdańsk. She is the author of many publications in the area of addictions and psychotherapy, Director of the Training Center for Professionals, responsible for the process of professional certification. Since 1995, she has been cooperating with the Pompidou Group of the Council of Europe. She is the President of the MONAR Association, and the Polish Federation of Therapeutic Communities, and is an expert of the National Bureau for Drug Prevention in Poland.

Chapter 1 - Definitions of dependency and recreational, regular, problematic, harmful drug use

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Summary

Due to limited space we have restricted our efforts to the key categories relevant to the context of this document. We are offering several definitions of the terms most frequently used in this publication, as well as in the other relevant publications and documents. It was not intended as guidance to the other authors of this book. However it is up to them to define the meaning of the terms which they are using in the text. In this chapter, we only provide with some of the widely accepted definitions currently in use. The most remarkable differences among some of the definitions are mentioned and sometime shortly discussed. Mostly they are based on those given in Lexicon of alcohol and drug terms (WHO, 1994).

List of terms to be defined:

- Abstinence
- Abuse
- Addiction
- Alcoholism
- Dependence
- Detoxification
- Drug
- Experimental drug use
- Harm reduction
- Harmful use
- Hazardous use
- Medically assisted treatment
- Prevention
- Problematic drug use
- Protective and Risk factors
- Psychoactive substances
- Recreational drug use
- Regular drug use
- Relapse
- Substitution therapy
- Symptomatic treatment
- Treatment
- Use

As this is a product of the Expert Forum on Treatment, the group took a scientific approach which defines dependence as a brain disease. However, the group is fully aware that the various health and social problems associated with use of and dependence on tobacco, alcohol and illicit substances require greater attention by public health community and appropriate policy

responses. Some of the terms, such as 'dependence', are based on extensive scientific evidence, better defined and broadly accepted. The other terms, which can be called 'soft' definitions , such as 'regular' or 'experimental drug use' are based on more or less consensus in the expert community. In these instances, it was not possible due to the space limits to provide the comprehensive description of all different competing concepts. The group had to make a choice. Despite frequent usage of such terms in common language, it was sometimes difficult to find rigorous and generally accepted definition for some of them.

It is also important to mention, that the concepts which are behind many of the terms, are derived from the clinical practice and research, which is more or less age specific. For example, there is more scientific evidence, clinical experience and research data on 'prevention', 'experimental drug use' and 'recreational drug use' among adolescents. There are less references to 'substitution therapy' and 'dependence'. What is more, bio-psycho-social aging of the individuals is uneven and is not identical with chronological aging, this makes the limits between the age groups in the real life fuzzy. All this should be taken in an account, when reading this chapter.

Abstinence

Non-use of specific substance. In recovery, non-use of any addictive psychoactive substance. May also denote cessation of addictive behaviour, such as gambling, over-eating, etc. (ASAM, 1998).
There is wider definition from WHO Lexicon of alcohol and drug terms (WHO, 1994). Refraining from drug use or (particularly) from drinking alcoholic beverages, whether as a matter of principle or for other reasons. Those who practice abstinence from alcohol are termed 'abstainers', 'total abstainers', or-in a more old-fashioned formulation = 'teetotallers'. The term 'current abstainer', often used in population surveys, is usually defined as a person who has not drunk an alcoholic beverage in the preceding 12 months; this definition does not necessarily coincide with a respondent's self-description as an abstainer.

UNODC definition is similar (UNODCCP, 2000). According to this definition, the term 'abstinence' refers to the act of refraining from alcohol or other drug use, whether for health, personal, social, religious, moral, legal or other reasons. The term 'current abstainer' is sometimes used for research purposes and is usually defined as a person who has not used drugs for specified prior period of time, e.g. 3, 6 or 12 months.
It is important to emphasis that abstinence should not be viewed as a condition of bad health, or sign of any disease.

Abuse

According to UNODC (UNODCCP, 2000) it is a term in wide use but with varying meanings. In international drug control conventions 'abuse' refers to any consumption of a controlled substance no matter how frequent. In the DSM-IV (APA, 1994) 'psychoactive substance abuse' is defined as 'a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following within a 12 month period: (a) recurrent substance use resulting in failure to fulfil major role obligations at work, school or home; (b) recurrent substance use in situations in which it is physically hazardous; (c) recurrent substance-related legal problems; (d) continued substance use despite having persistent or recurrent social

or interpersonal problems caused or exacerbated by the effects of the substance'. The term dependence taking precedence whenever applicable.

The term 'abuse' is sometimes used disapprovingly to refer to any use at all, particularly of illicit drugs. Because of its ambiguity, the term is only used in the ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines (WHO, 1992) for non-dependence producing substances. 'Harmful' use and 'hazardous use' are the equivalent terms in WHO usage, although they usually relate only to effects on health and not to social consequences. The term 'abuse' is also discouraged by the Centre for Substance Abuse Prevention in the United States, although the term 'substance abuse' remains in wide use and refers generally to problems of psychoactive substance use. The term 'drug abuse' has also been criticized as being circular when it is used without reference to specific problems arising from drug use.

Recent economic cost studies use a definition whereby 'abuse' is defined as any use which involves social costs to the community in addition to the costs of the provision of the drug.
Current international drug control treaties do not define 'drug abuse' but make reference to a variety of terms, including abuse, misuse, and illicit use. In the context of international drug abuse constitutes the use of any substance under international control for purposes other than medical and scientific, including use without prescription, in excessive dose levels, or over an unjustified period of time.

While recognizing that abuse is part of present diagnostic terminology, ASAM (ASAM, 1998) recommends that an alternative term be found for this purpose because of the pejorative connotations of the word abuse.

Addiction

Repeated use of a psychoactive substance or substances, to the extent that the user (referred to as an addict) is periodically or chronically intoxicated, shows a compulsion to take the preferred substance (or substances), has great difficulty in voluntarily ceasing or modifying substance use, and exhibits determination to obtain psychoactive substances by almost any means. Typically, tolerance is prominent and a withdrawal syndrome frequently occurs when substance use is interrupted. The life of the addict may be dominated by substance use to the virtual exclusion of all other activities and responsibilities. The term addiction also conveys the sense that such substance use has a detrimental effect on society, as well as on the individual; when applied to the use of alcohol, it is equivalent to alcoholism. Addiction is a term of long-standing and variable usage. It is regarded by many as a discrete disease entity, a debilitating disorder rooted in the pharmacological effects of the drug, which is remorselessly progressive. From the 1920s to the 1960s attempts were made to differentiate between addiction; and 'habituation', a less severe form of psychological adaptation. In the 1960s the World Health Organization recommended that both terms be abandoned in favour of dependence, which can exist in various degrees of severity. Addiction is not a diagnostic term in ICD-10, but continues to be very widely employed by professionals and the general public alike (WHO, 1994).

Substance dependence - or dependence syndrome - is the current technical terminology for the concept of 'addiction'. In some cultures in some societies it has a pejorative connotation, so many authors prefer not to use the term 'addiction'. At the heart of this concept is the idea that

the user's control over and volition about use of the drug has been lost or impaired (WHO, 2004).

Alcoholism

Alcoholism is an imprecise term, which may encompass alcohol abuse or dependence (CSAM, 1999).

Alcoholism A term of long-standing use and variable meaning, generally taken to refer to chronic continual drinking or periodic consumption of alcohol which is characterized by impaired control over drinking, frequent episodes of intoxication, and preoccupation with alcohol and the use of alcohol despite adverse consequences. The term alcoholism was originally coined in 1849 by Magnus Huss. Until the 1940s it referred primarily to the physical consequences of long-term heavy drinking ('beta alcoholism' in Jellinek's typology). A narrower concept is of alcoholism as a disease marked by loss of control over drinking, caused by a pre-existing biological abnormality, and having a predictable progressive course. Later, the term was used by Jellinek and others to denote the consumption of alcohol leading to any type of harm (physical, psychological, or social; individual or societal). Jellinek subdivided alcoholism thus defined into a series of 'species' designated by Greek letters. The inexactness of the term led a 1979 WHO Expert Committee* to disfavour it, preferring the narrower formulation of alcohol dependence syndrome as one among a wide range of alcohol-related problems. Alcoholism is not included as a diagnostic entity in WHO ICD-I0. Despite its ambiguous meaning, alcoholism is still widely employed as a diagnostic and descriptive term (WHO, 1994).

Dependence

Cluster of physiological, behavioural and cognitive phenomena of variable intensity, in which the use of psychoactive drug (or drugs) takes on high priority. The necessary descriptive characteristics are preoccupation with a desire to obtain and take the drug and persistent drug-seeking behaviour. Determinants and the problematic consequences may be biological, psychological or social, and usually interact.

Operationally as defined by World Health Organization (1992) in The ICD-10 Classification of mental and behavioural disorders, substance use dependence includes six criteria. Definite diagnosis of dependence should usually be made only if three or more of them have been experienced or exhibit at some time during the previous year:

1. A strong desire or sense of compulsion to take the substance;
2. Difficulties in controlling substance-taking behaviour in terms of its onset, , or levels of use;
3. A physiological withdrawal state when substance use has ceases or been, as evidenced by: the characteristic withdrawal syndrome for the or use of the same (or closely related) substance with intention of relieving or avoiding withdrawal symptoms;
4. Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses;
5. Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance to recover from its effects;

6. Persisting with substance uses despite clear evidence of overtly harmful consequences, such as the harm to the liver through excessive drinking, depressive mood states consequent to heavy substance use, or drug related impairment of cognitive functioning. Efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.

It is an essential characteristic of the dependence syndrome that either psychoactive substance taking or a desire to take a particular substance should be present; the subjective awareness of compulsion to use drugs is most commonly seen during attempts to stop or control substance use (WHO, 1994). This is the part of WHO ICD-10 definition, which is close to the concept of craving, but the term craving is not used in it.

Criteria for substance dependence in Diagnostic and Statistical Manual - IV, issued by American Psychiatric Association (1994) are showing high congruence in clinical practice with ICD-10.

Detoxification

A process of withdrawing a person from a specific psychoactive substance in a safe and effective manner (ASAM, 1998).

Detoxification according to WHO definition is: (1) The process by which an individual is withdrawn from the effects of a psychoactive substance. (2) As a clinical procedure, the withdrawal process is carried out in a safe and effective manner, such that withdrawal symptoms are minimized. The facility in which this takes place may be variously termed a detoxification centre, detox centre, or sobering-up station.

Typically, the individual is clinically intoxicated or already in withdrawal at the outset of detoxification. Detoxification may or may not involve the administration of medication. When it does, the medication given is usually a drug that shows cross-tolerance and cross-dependence to the substance(s) taken by the patient. The dose is calculated to relieve the withdrawal syndrome without inducing intoxication, and is gradually tapered off as the patient recovers. Detoxification as a clinical procedure implies that the individual is supervised until recovery from intoxication or from the physical withdrawal syndrome is complete. The term 'self-detoxification' is sometimes used to denote unassisted recovery from a bout of intoxication or withdrawal symptoms (WHO, 1994).

Drug

A term of varied usage. In medicine, it refers to any substance with the potential to prevent or cure disease or enhance physical or mental welfare, and in pharmacology to any chemical agent that alters the biochemical or physiological processes of tissues or organisms. Hence, a drug is a substance that is, or could be, listed in a pharmacopoeia. In common usage, the term often refers specifically to psychoactive drugs, and often, even more specifically, to illicit drugs, of which there is non-medical use in addition to any medical use. Professional formulations (e.g. 'alcohol and other drugs') often seek to make the point that caffeine, tobacco, alcohol, and other substances in common non- medical use are also drugs in the sense of being taken at least in part for their psychoactive effects (WHO, 1994)

In the various United Nations Conventions and in the Declaration on Drug Demand Reduction it refers to substances subject to international control. In medicine, it refers to any substance with the potential to prevent or cure disease or enhance physical or mental well-being. In pharmacology, the term drug refers to any chemical agent that alters the biochemical or physiological processes of tissues or organisms. In common usage, the term often refers specifically to psychoactive drugs, and often, even more specifically, to illicit drugs. However, caffeine, tobacco, alcohol, and other substances in common non-medical use are also drugs in the sense of being taken primarily for their psychoactive effects. For demand reduction purposes, it is clearly necessary to exclude food stuffs from the coverage of the term 'drug' even though these clearly alter mental state and increase a sense of well-being (UNODCCP, 2000).

Experimental drug use

Children and young people experiment with substance use. They are curious and want to experience new feelings and sensations. Following some experimentation, most children and young people tend to stop using substances (UN ESCAP, 2005).

According to EMCDDA (2000) experimental drug users are defined as the persons using psychoactive substances during the first few instances of using a particular drug. The term sometimes refers to persons with extremely infrequent or non-persistent use

Harm reduction

Harm reduction is any activity aimed at stopping harmful consumption practices or decreasing drug-related social and health problems or death. It does not envisage a drug-free status or reintegration of the users (EMCDDA, 2000).

Harm reduction in narrower, biological or medical concept is as it follows: In the context of alcohol or other drugs, describes policies or programmes that focus directly on reducing the harm resulting from the use of alcohol or drugs. The term is used particularly of policies or programmes that aim to reduce the harm without necessarily affecting the underlying drug use; examples include needle/syringe exchanges to counteract needle-sharing among heroin users, and self-inflating airbags in automobiles to reduce injury in accidents, especially as a result of drinking-driving. Harm reduction strategies thus cover a wider range than the dichotomy of supply reduction and demand reduction. Synonym: harm minimization (WHO, 1994).

Harm reduction- in wider concept it encompasses policies and programmes span prevention and treatment. They aim to decrease the adverse health, social and economic consequences of drug use without necessarily diminishing drug consumption (Wodak & Sounders, 1995). The term harm reduction sometimes also known as harm minimization has not been defined by an official body and consequently has been used with a bewildering variety of interpretations (Strang, 1993). Although harm reduction approaches are not intended primarily to reduce consumption of drugs, this often is unintended long-term result (Wodak, ASAM, 1998). Canadian Society for Addiction Medicine is offering wider definition of harm reduction (CSAM, 1999): Harm reduction - health promotion, prevention, assessment and intervention options that aim to decrease the health and socio-economic consequences of drug use and addictive behaviour, without necessarily requiring abstinence. Abstinence-based strategies are an integral component of comprehensive harm reduction.

Harmful use

A pattern of psychoactive substance use that is causing damage to health. The damage may be physical or mental (WHO, 1992). It should be emphasized that both dependence and harmful use often interfere with the functioning of the individual in society, but the type and extent of this interference depend upon social, cultural and religious context (WHO Technical report series 836, 1993).The concept of harmful use is more restrictive than substance abuse. Also it will cover lower number of the individuals in any general population. According to the research the harmful use is close to dependence and abuse to the condition of the psychoactive substance use without any problem and less clear are the limits between them. If the concept of abuse is used, the other important problems are the difficulties with comparability of the epidemiological findings specifically on the incidence and prevalence among different countries with different legal systems, which are in the various socio-cultural settings. This problem is given by its definition. All these limitations should be kept on mind, when we are using the terminology. Recent findings are showing that while DSM-IV resulted in poor distinction between normality and abuse, ICD-10 resulted in poor distinction between harmful use and dependence (deBruijn et al., 2005). Though the current ICD-10 and DSM-IV definitions of dependence are very similar, they differ sharply on the concepts of abuse (DSM-IV) and harmful use (ICD-10). In DSM-IV, abuse is defined in social terms: i.e., problematic use in the absence of compulsive use, tolerance, and withdrawal. ICD-10 has been reluctant to accept criteria items that are defined in terms of social impairment. However ICD-10 recognises a nondependent type of substance use disorder. In ICD-10, this disorder is called harmful use and involves substance use that results in actual physical or mental damage. The ICD-10 category of harmful use is one that can be applied cross-culturally

Hazardous use

A pattern of psychoactive substance use that increases the risk of harmful consequences for the user. Some would limit the consequences to physical and mental health (as in 'harmful use'); some would also include social consequences. In contrast to harmful use, hazardous use refers to patters of use that are of public health significance despite the absence of any current disorder in the individual user. The term is used currently by WHO but is not a diagnostic term in ICD-I0 (WHO, 1994).

Medically assisted treatment

Medically assisted treatment is newer and broader term as substitution therapy. It also encompasses not only medications of pharmacologically related to one producing dependence, with similar effects also known as agonists, but also includes substances with opposite pharmacological effects, known as antagonists, which are also sometimes prescribed for long-term treatment, especially for treatment of dependence on opioids.

Prevention

Primary prevention is aimed at ensuring that a disorder, process or problem will not occur.

Secondary prevention is aimed at identifying and terminating or modifying for the better a disorder, process or problem at the earliest possible moment.

Tertiary prevention is aimed at stopping or retarding the progress of a disorder, process or problem and its sequel even though the basic condition persists (WHO, 1993).

While the term secondary prevention usually refers to treatment and rehabilitation interventions at a stage when psychoactive substance use has not yet caused serious problems tertiary prevention refers to strategies for reducing harm to and improving the quality of life for users who may experience physical and mental disabilities as well as social disadvantages (WHO, 1998).

Problematic drug use

'Problematic drug use' is a concept, which recently the most frequently used in the connection with collection of the data for key drug indicators with a definition as it appears in the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) manual. It is very difficult to find a consensus on the definition. There is an ongoing discussion on the revision of the concept in the expert working groups at the EMCDDA.

Currently, the term problem drug use is used, which includes all different forms of problems due to the use of opiates, cocaine, and amphetamines, irrespective of the route of administration (EMCDDA, 1999). Suggested operational definition of a target group for epidemiological purposes would be: intravenous drug use or long duration/regular use of opiates, cocaine or amphetamines; during a one year period; in the age group 15-64.

The identification of substance user can only be derived from the known population, e.g., only when individual comes into the contact with the legal, medical or social system do we know that he or she is a user. Any definition of problematic drug use should therefore consider these three perspectives with their different interests, norms and values. In practice, however, the simultaneous consideration of all the perspectives is often not possible, e.g. due to the non-availability of data. Clinical systems, the WHO/ICD-10 classification and American DSM-IV, particularly, give criteria for dependence, harmful use and substance abuse. Consequently, all other use can be assumed as unproblematic.

Often several problems are discussed with the definition of the problematic drug use. One of them is, that despite of the inclusion of legal perspective in the clinical system (especially, this is the case in DSM-IV definition of substance abuse), that the legal status of the substances varies between countries, which leads to difficulties in determining what a problematic use may be according to different legal systems. Another issue is that, not all groups of problem drug users are covered by this definition, e.g., problematic drug users of cannabis or inhalants, the psychoactive substances often used by some young people. Not to mention illicit alcohol use by children and adolescents. Furthermore, substances are used in quite mixed, often chaotic patterns. Only very few opiate users do not use other drugs as well.

Protective and risk factors

Traditionally the protective and risk factors have been very frequently discussed as the opposites. However, recently more emphasis is given to the perspective of viewing them as different concepts. Not each protective factor has an opposite risk factor and vice versa. On one side we have causal influences and this is balanced by protective influences. 'Protective' implies a causal

influence, and the term ‘risk factor’ we created to convey uncertainty about causal influence. For example vaccination of intravenous drug users against hepatitis B is a protective factor.

Protective factors appear to be more important for more long-term use patterns and cumulative outcomes, while risk factors are more important for short-term, more immediate use patterns and outcomes.

There are both environmental risk factors (e.g. social class, mobility, social change, peer culture, educational style and occupational risk) and individual risk factors (e.g. genetic disposition, child abuse, personality disorder) (Uchtenhagen, 2000).

While risk factors emphasize negative influences and the importance of prevention, protective factors stress positive alternatives and the necessity of health promotion (WHO, 2004).
The concept of protective factors comes from Public health science and is based on the idea of resources which encourages the state of health – which is more than the absence of diseases. One possible explanation for the effects of protective factors is so-called buffer-hypothesis, meaning that protective factors can buffer the relationship between health and disease. Another explanation is the main-effect-hypothesis, which assumes an effect of the protective factor independent from risk factors. There is evidence for both hypotheses (Schmid, 2000).

The ‘risk-using' terminology should be handled very carefully. There is a slight but important difference in viewing a man ‘vulnerable' due to the risk factors, or seeing him ‘protected‘ due to the presence of protective factors. The term ‘protective' is proactive and not reactive as is the term 'risky' factor. Being indicated as vulnerable is also much more stigmatizing for the individual, in the contrast with being protected. It is very important to be careful about the terminology especially in the connection with screening for possible biological and psychological risk factors predisposing to the higher probability to develop the problems associated with psychoactive substance use among children and young adults. Being vulnerable in this meaning is very close, if not identical, with having handicap or even disorder in the layman understanding of the terms. Which, of course, is not so straightforward because for example having one or even both parents with the history of alcohol dependence means that child has higher probability to inherit the predisposition to this disorder. In fact, there is no possibility to detect whether he/she has really inherited the predisposition or not. We are unable to say, if he/she as individual is more vulnerable to suffer from the problems in the future than his/her peers with negative family history. Similar misinterpretation of the risk factors may have potentially very negative personal consequences.

Universal intervention directed at all young people raise concerns about unintended adverse consequences, such as encouraging drug experimentation. While targeted or indicated interventions raise additional ethical issues because they require the identification of young people who are at increased risk of using drugs. Participation in trials of preventive interventions may also expose the children to social stigmatization and discrimination, if it becomes known to their teachers, peers and their peers' parents (WHO, 2004)

Psychoactive substances

According to WHO definition in its Lexicon (1994) a psychoactive drug or substance , when ingested, affects mental processes, e.g. cognition or affect. This term and its equivalent, psychotropic drug, are the most neutral and descriptive terms for the whole class of substances, licit and illicit, of interest to drug policy. 'Psychoactive' does not necessarily imply dependence-producing, and in common parlance, the term is often left unstated, as in 'drug use' or 'substance abuse'.(See also drug).

Other definition can be found in the newer WHO publication (WHO, 2004): Psychoactive substances, more commonly known as psychoactive drugs, are substances that, when taken, has the ability to change an individual's consciousness, mood or thinking processes. Psychoactive substances act in the brain on mechanisms that exist normally to regulate the functions of mood, thoughts, and motivations.

Use of these substances is defined into three categories according to their sociolegal status. First, many of the substances are used as medications (e.g. some opioids, stimulants). A second category of use is illegal, or illicit, use. Under three international conventions, most nations have bound themselves to outlaw trade in and non-medical use of opiates, cannabis, hallucinogens, cocaine and many other stimulants, and many hypnotics and sedatives. In addition to this list, countries or local jurisdictions often add their own prohibited substances, e.g. alcoholic beverages and various inhalants. The third category of use is legal, or licit consumption, for whatever purpose the consumer chooses. The most widely used psychoactive substances are the following: caffeine and related stimulants, commonly used in the form of coffee, tea and many soft drinks; nicotine and alcoholic beverages.

Recreational drug use

Recreational of a drug, usually an illicit drug, in sociable or relaxing circumstances, by implication without dependence or other problems. The term is disfavoured by those seeking to define all illicit drug use as a problem (WHO, 1994).

According to EMCDDA (2002) in nightlife settings, most people who consume psychoactive substances do so with the intention of 'having fun'. Consequently definition of recreational drug use in this context is taken to mean the use of psychoactive substances to 'have fun' in nightlife settings.

There are other similar definitions. Recreational drug use is the use of drugs for pleasure or leisure. The term is often used to denote the use of ecstasy and other 'dance drugs', and implies that drug use has become part of someone's lifestyle, even though they may only take drugs occasionally (DRUGSCOPE).

UNODC (1985) has provided a definition of the term social-recreational use. Social-recreational drug use generally occurs in social settings among friends or acquaintances who wish to share an experience perceived by them as acceptable and pleasurable. Such use is primarily motivated by social factors and does not tend to escalate to more individually oriented patterns of use. Unlike experimental use which is limited to few episodes, social use tends to be repeated in weekly or biweekly episodes.

Regular drug use

The term is important especially for epidemiological and legal purposes. In most studies of drug use, 'regular users' are defined as those who take any drug once a week or more (Atha & Blanchard, 1997).

Relapse

Relapse: A return to drinking or other drug use after a period, of abstinence, often accompanied by reinstatement of dependence symptoms. Some writers distinguish between relapse and lapse ('slip'), with the latter denoting an isolated occasion of alcohol or drug use (WHO, 1994).

Substitution therapy

Substitution therapy was defined as:
For people dependent on psychoactive substance, the administration of prescribed psychoactive substance, pharmacologically related to the one producing dependence, to achieve defined treatment aims, usually improved health and well-being (WHO, 1998).

Treatment

Application of planned procedures to identify and change patterns of behaviour that are maladaptive, destructive and/or injurious to health; or to restore appropriate levels of physical, psychological and/or social functioning (ASAM, 1998).

Use

Self-administration of a psychoactive substance (WHO, 1994).

Recommendations

1. To avoid misunderstandings and confusion it is important to use a common set of terminology, e.g. key definitions provided in this book.

2. Language used to describe drug problem sometimes is based on ideological rather than scientific approach, influenced by the social norms and values rather than scientific and professional approach. This could create misunderstandings and confusion. It is recommended to make efforts to agree and then use the common professional language as much as possible free of emotions, myths and ideology.

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Lubomir Okruhlica (1952) obtained title of MD and Ph.D. at the Comenius University, Bratislava, Czechoslovakia. He worked as a lecturer with Department of Psychiatry at Comenius University in Bratislava and also as an acting head at the University of Zambia, Lusaka. He coordinated WHO training project as United Nations Volunteer in Africa. He was Hubert H. Humphrey Fellow at the Johns Hopkins University in Baltimore (USA), Pompidou Group and NIDA/INVEST grantee. He is a medical director of the Institute and Centre for Treatment of Drug Dependencies in Bratislava and Chief Expert for Drug Dependencies at the Ministry of Health of the Slovak Republic, at present. He is a member of the Executive Board of the Federation of the Therapeutic Communities of Central and Eastern Europe and member of the board (previous president) of the Slovak Association for Dependencies on Psychoactive Substances. Dr. Okruhlica had received WHO/CPDD competitive grant as young scientist for CPDD Conference, was presenting as a selected expert on drug demand reduction at CND in Vienna in the year 2001, was a key speaker at EUROPAD conference in Oslo, 2002. He is EUROPAD Chimera awardee and the American Association's for the Treatment of Opioid Dependence, Inc. (AAOTD) 2006 Nyswander/Dole Award recipient. He is coordinator of several local, national and international research projects in the field of drug demand reduction, especially on infectious disease indicators among IDUs, on pharmacokinetics of opiate agonists, evaluation studies, on the access to treatment etc. Dr. Okruhlica is responsible for the Treatment Demand Indicator (TDI) and Drug Related Diseases Indicator (DRID) for Slovakia at European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) in Lisbon, and is a member of its Scientific Board. Dr. Okruhlica is Slovak expert representative for alcohol at WHO Regional Office for Europe and Slovak representative for Working Group on Alcohol at DG SANCO EC in Luxembourg.

Janusz Sieroslawski – sociologist, since 1983 works as a researcher in Institute of Psychiatry and Neurology in Warsaw. Since 2002 Head of National Focal Point for EMCDDA which is located within National Bureau for Drug Prevention, Warsaw. Involved in much international research and training projects commissioned or coordinated by Pompidou Group, UNDCP, European Commission. Main areas of his interest cover epidemiology of alcohol and drug abuse, social response to alcohol and drug problems on local and national level including drug and alcohol policy. Author of about 80 scientific publications in Polish, English, French, German, and Russian.

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Chapter 2 - Epidemiological basis

Janusz Sieroslawski, Boguslawa Bukowska, Piotr Jablonski

Summary

The monitoring system developed by EMCDDA provides us with reliable and systematic review of drug problem in most European countries. Also, the local monitoring system developed by the Pompidou Group gives important input to the valuable insights drug problem on the European continent. According to all available information sources, youth is a group predominantly affected by the problem. Cannabis is the most prevalent drug used among youth as far as the experimental and occasional use is concerned. On the problematic use level, heroin and/or cocaine are dominant. Currently, the increasing trend of drug problem is observed in most countries. Current tendencies on European drug scene could be characterised as follows:

- *Increasing trend in drug demand and drug consumption among both youth and adult populations*
- *Increasing trend in prevalence of problematic drug use*
- *Changes in drug use patterns*
- *Development of illicit drugs market and increase of drugs availability*
- *Changing in nature of drug related problems*
- *Tendency to stabilisation in indicators of most serious drug related health problems like drug overdoses or infection diseases*

Apart from these common tendencies, the drug problem is much differentiated among European Countries. The same is the case when only drug use among youth is taken into consideration.

This differentiation could be illustrated by the results of European School Survey Project on Alcohol and Drugs (ESPAD) conducted among 15-16 years student in 35 European Countries in 2003 (figure 1).

As an average for all countries participated in the study around 21% of students aged 15–16 used cannabis at least once in their life-span. The highest prevalence of lifetime use is observed in Czech Republic – 44%, while the lowest one in Romania – 3%. The same huge range of results could be seen if the current use is taken into consideration. The highest percentages of students using cannabis during last 30 days preceding the study is noted in France – 22% and the lowest one in Romania – less than 1%. The average prevalence of current cannabis use for all countries is 9%.

The first indicator, that is prevalence of lifetime use, provides only the background information on the scale of drug problem. In most countries, the significant part of those who experiment with drugs don't continue this behaviour, but we can observe huge differentiation in this respect. For example, in France more than half of lifetime users belong to current users group, while in Faroe Islands or Finland only 10-18%.

Teenagers who continued drug use on the occasional level need an intervention but sometimes give up using without treatment, especially if the most prevalent drug, that is cannabis, is concerned. In case of occasional cannabis use usually simple intervention is sufficient, if it is not

frequent use and not associated with risk factors. Anyway, the current users are potential clients of offers of intervention.

Figure 1. Percentages of life-time and current cannabis users among students aged 15-16 (ESPAD 2003)

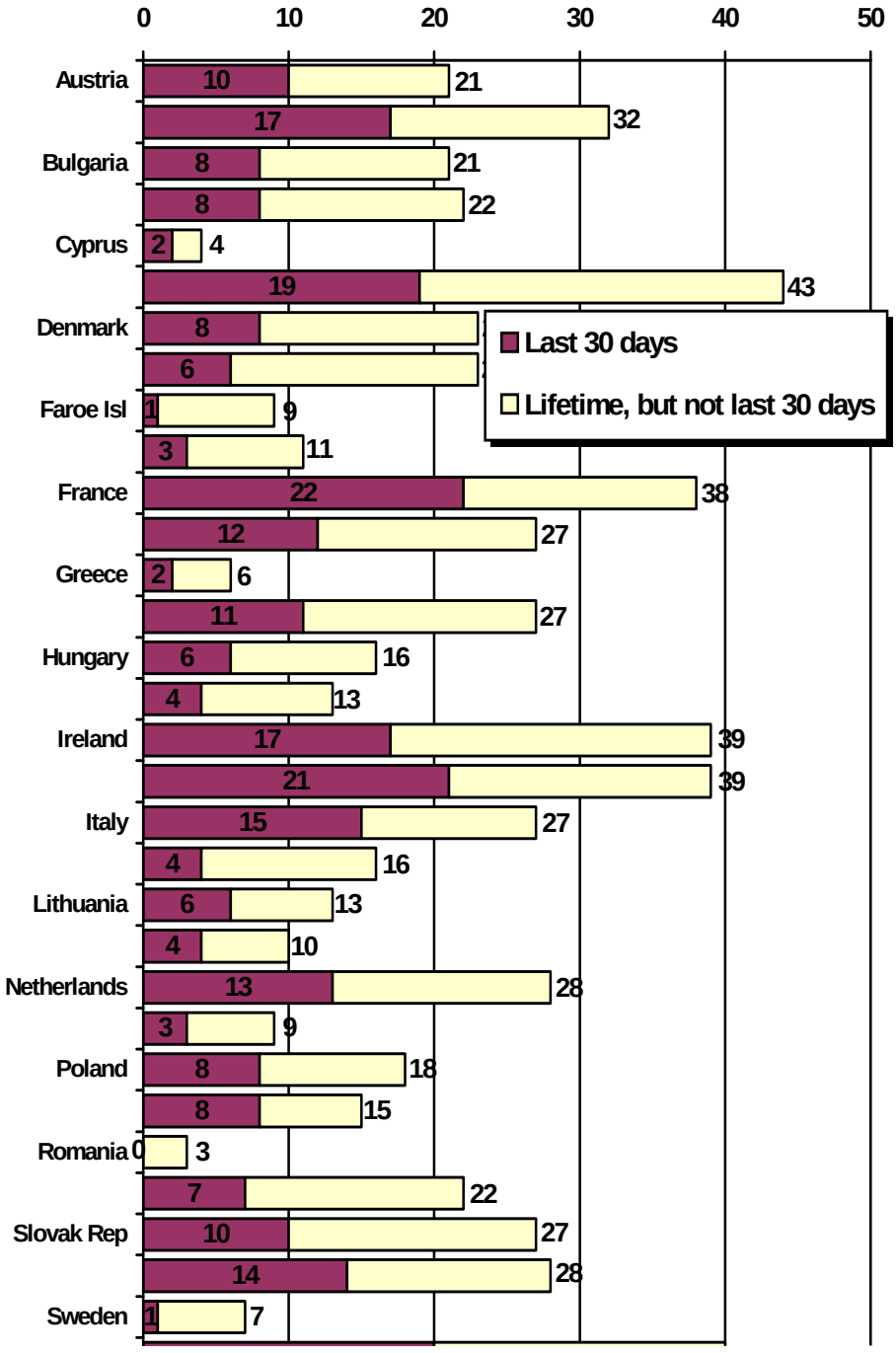
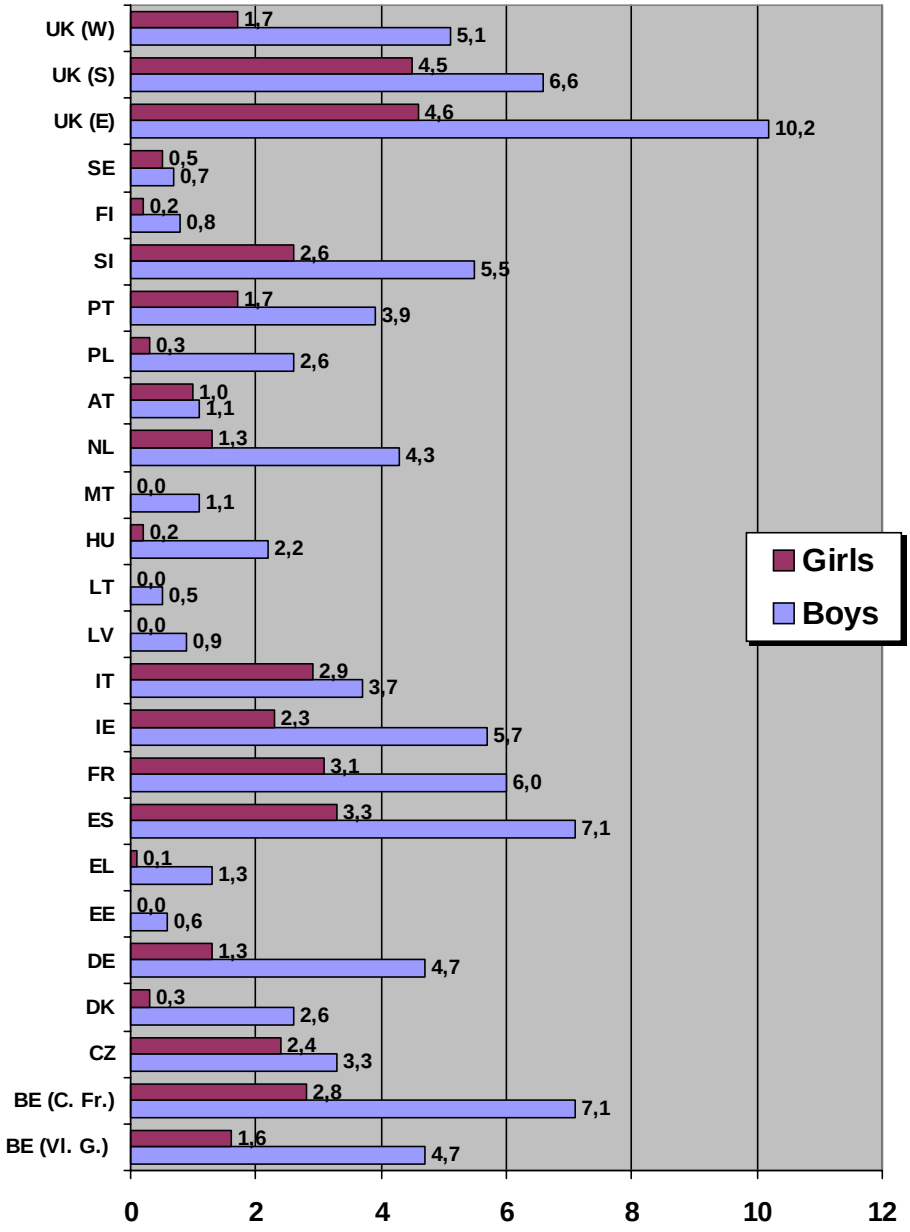


Figure 2: Prevalence of 'heavy' cannabis use among 15-year-old school students by gender in 2001/2002 (HBSC 2001/2002)



Notes:

- 'Heavy' cannabis use is defined as use on 40 or more occasions during the past year.
- Germany, regional sample only.
- Portugal, limited comparability due to sample size and age.

Source: Currie et al. (2004) HBSC International Report from the 2001/2002 WHO survey.

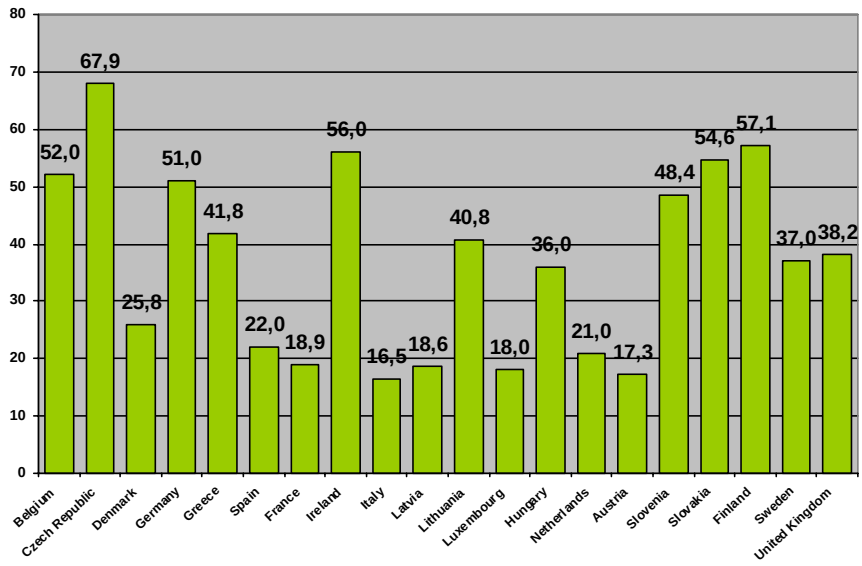
According to the results of other European school survey (Health Behaviour in School-aged Children – HBSC) around 5% of 15–16-year-olds are „heavy' cannabis users, defined as 40 or more times per year. The prevalence of such defined heavy cannabis use is very differentiated by countries and gender. In most countries, young male students are more than twice as likely to be

„heavy users' as girls. In some countries, with low prevalence like Malta, Latvia or Lithuania the percentages of heavy users among girls is less than 0.1%, while among boys around 1%. The biggest rate of percentage among boys to percentage among girls is observed in Poland and Denmark (8.7 – 2.6% among boys and 0.3% among girls) and then in the Netherlands (3.3 – 4.3% among boys and 1.3% among girls). In Czech Republic and in Italy the percentages of heavy cannabis users among boys and girls are much more close to each other. In Sweden there is almost no (0.7% among boys and 0.5% among girls) differentiation related to gender. The highest prevalence of heavy cannabis use among boys is noted in England (10.2%).

The picture of the problematic drug use could be formulated based on the drug treatment data and estimations of prevalence of problematic drug use.

As it is shown on the figure 3 the European countries are differentiated in terms of extent of share of young people (age under 25).

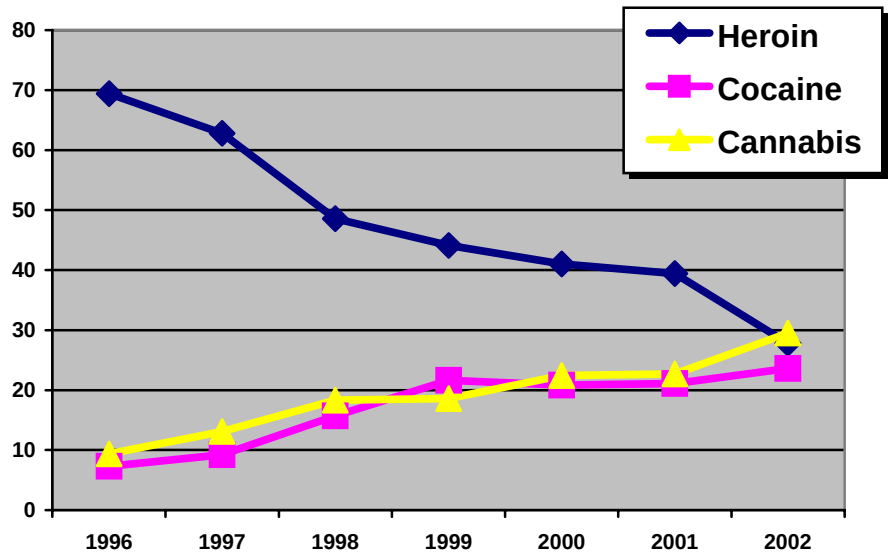
Figure 3. Clients aged under 25 in treatment - percentage among all treated



The percentage of youth among treated population of drug addicts varied from 67.9% in Czech Republic to 16.5% in Italy. The proportion of young people is dependent not only on the proportion of youth among drug addicts but also on age related differentiation of treatment admissions, treatment availability and other factors.

The patterns of drug use can change radically even in relatively short-term period. The trends in changes of drug use patterns in Europe is visible based on treatment data shown on the figure 4.

Figure 4. Proportion of new clients attending drug treatment services who report primary drug to be heroin, cocaine and cannabis, 1996–2002



NNotes:

- Countries providing data each year are: CZ, DK, DE, EL, ES, NL, SI, SK, FI and SE (except FI data missing 1996/97, SE data missing 2000).
- Figures are summed over contributing countries for each year.

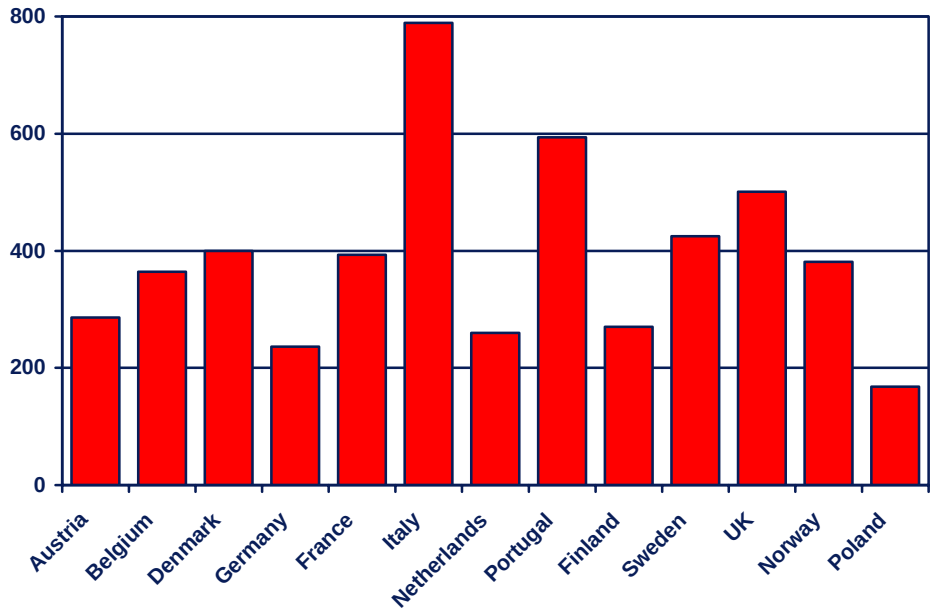
Source: Reitox national reports 2003.

During the period of 1996-2002 the strong trend was observed in proportion of clients demanding treatment due to heroin, cocaine and cannabis. The share of heroin users in treatment significantly decreased (from 70% to 30%). The proportion of both groups of users other drugs i.e. cannabis and cocaine increased from less then 10% to 25-30% each.

Unfortunately we have no estimations of the numbers of the young problematic drug users. The available estimations in most countries covers age range 15-65. The variations of results of estimations coming from particular European countries are shown in the figure 5.

The estimations are usually presented as a range, on the graph the means values recalculated per 100 000 population are shown in order to simplify the picture.

Figure 5. Estimated numbers of problematic drug users (rate per 100 000 inhabitants)



The highest estimate was recorded in Italy, the lowest one in Poland. The comparability of results is very limited due to various estimate methods employed in countries, differences in years of estimation and in details of definitions of target population. Nevertheless the differentiation of the prevalence of problematic drug use visible on graph could not be explained only by these methodological factors.

Assessment of treatment needs

Developing effective treatment response to the drug problem requires estimation of extent of the problem as well as a sound understanding of the nature of the problem. The number of potential clients are especially important for service provision planning on various levels – national, regional and local. The local level seems to be especially important in countries with decentralised system in which the local level is responsible for service provision for drug users.

The extent of treatment needs could be considered to be the number of drug users who are in need of treatment, but also the number of drug users willing to use treatment service. In other words for treatment planners it is not enough to know how many drug users in need of treatment are in area of planning but also how many of them will be ready to use various kind of treatment offers. Identification of conditions under which drug users would be ready to come to treatment seems to be key point for planning the scope of various kinds of treatment offers and preparing treatment programmes.

The estimation of treatment needs is needed on various levels for different purposes:

On national level assessment of treatment needs is useful for:

- designing drug treatment policy
- general planning of service provision

On regional and local levels assessment of treatment needs is useful for:

- planning of service provision
- developing local treatment programmes

The drug problem is very differentiated not only between countries but also within each country. The size of drug users population and dominating patterns of drug use vary territorially (urban-rural, regions) and according to age, gender and other socio-demographic factors. Also the level of readiness of drug users to participate in various kinds of treatment programmes is differentiated. Therefore national figures usually don't reflect local situation. It constitutes need for local assessments and monitoring. Such exercise should involved researchers experienced in exploring drug problem. The key questions to be answered are:

- How many young drug users exist in an area of interest?
- How many of them and under which conditions are ready to participate in various treatment programmes?
- What are the profiles of young drug users in terms of socio-demographic characteristics, drug use patterns, drug related problems, life conditions?
- What are the needs and expectations of young drug users?
- What are the attitudes toward drug use and drug users in the area of interest?

Local assessments and monitoring

Drug abuse is usually hidden behaviour and it is stigmatised in most societies. As a result, there have been varying degrees of under-reporting of drug abuse when traditional epidemiological survey techniques (such as household surveys of drug abuse) have been used. Problem drug users as a group are also characterised as hidden, often 'hard to reach' and marginalized populations that are not easily detected in the course of traditional epidemiological studies that employ statistically representative sampling techniques.

Furthermore, trends and patterns of drug use and abuse change rapidly over time. Drug use and abuse also vary from area to area or within social groups and are influenced by a variety of social, economic and cultural factors. The problems related to drug abuse also vary depending on drug and social context. It is necessary therefore to see the problem of drug abuse holistically in the social, cultural and historical context. This necessitates exploring the problem using a variety of techniques and methodologies for data collection that can enable the researchers to build as comprehensive picture. Short review of key points of methods useful for assessment of treatment needs is included below.

Information Needs and Resource Analysis (INRA)

As a first step of assessment of treatment needs an initial Information Needs and Resources Analysis exercises should be conducted to identify and assess:

- existing sources of information on drug abuse patterns and trends: data from registries, general and psychiatric hospitals, forensic institutions, treatment centres, police, courts and prisons;
- comparability of definition of terms, core indicators and procedures for data collection and analysis; and human resources, their level of expertise and training needs on data collection, analysis and establishment of drug information systems.

In many countries data on drug use and trafficking are collected for administrative purposes and it may not always provide a sufficiently clear epidemiological picture. Moreover, the statistical data cover only the part of the phenomena that is registered by the institutions. Nevertheless, these data can be useful as proxy indicators, especially in the form of time series for tracking existing trends. As part of INRA data from the following sources could be collected and analysed:

- Treatment institutions - number of drug users registered - cumulative and registered for the first time and number of patients treated yearly with breakdown by age, gender, and type of drug used.
- Law Enforcement Data – including number of people arrested for drug related crimes, and seizures of drugs
- Criminal Justice system – number of people sentenced for drug related charges and crimes
- HIV/AIDS surveillance system – cumulative and yearly number of HIV/AIDS cases reported especially among Injecting Drug Users.

Treatment-monitoring systems are one of the major information sources for drug epidemiology and demand reduction. These systems provide valuable information on the extent and characteristics of drug use as well as on measures taken to deal with the phenomenon. This information can be collected with limited financial effort within the framework of treatment services, as data on treated persons are readily available and are already collected for treatment purposes. In addition, this information is generally of high quality, as experts such as social workers and therapists complete the relevant questionnaires. Data on treated drug users are already available in many European Countries.

Key Informants Study

Key informants interview is an approach useful to conduct initial assessments of a problem whose dimensions are not fully known to the researchers. Key informants are generally considered as persons who are in contact with the target population, i.e. the drug users as well as experts on the field because of their professional or personal experiences and direct knowledge of the problem or behaviour investigated. Occupational groups such as health workers, policemen, NGO activists, social workers, local authorities or other specific groups like ex-drug users can not only provide insight by giving their perceptions of the drug use problem but also provide valuable information on drug users characteristics, drug use patterns and risk behaviours.

For purpose of drug treatment needs assessment, following professional groups of respondents are recommended to be interviewed:

- Staff in the field of healthcare, law enforcement - officers directly involved in drug abuse issues,
- District doctors, ambulance doctors, Public Health personnel at the AIDS prevention centres,
- Law enforcement officers at the local level,
- Personnel of educational sector, NGOs providing social aid,
- Former drug addicts,
- Staff of leisure time sites like disco, pubs and so on party-goers,
- Leisure time sites goers.

A standardised questionnaire could be employed as a research tool which also included open ended questions to ensure room for a free description or explanation of the problem. Alternatively the qualitative approach could be applied. Instead of quantitative survey, in-depth interviews or focus groups could be used as data collection methods.

Snowball Study of Street Drug Users Population

The snowball technique is most frequently used when the researchers do not have access to an adequate sampling frame and when there is little information available about the specific group under study. This makes the technique particularly useful when investigating marginal populations. It involves identifying a few respondents who thereafter refer others from their particular social network, for example their drug-using acquaintances, for possible involvement and interview.

The snowball study is especially relevant to reach population of street drug users who are defined as heavy drug users – persons who took drugs regularly and suffered from health and social consequences of drug use with drugs being the most significant element of their lifestyle.

Snowball sampling involves researchers first orientating themselves in the target population, then making contacts and interviewing respondents. At the end of each interview respondents are asked to assist in finding new respondents. Chains of respondents are thus generated through referrals from earlier respondents. The sample is extended on and on by interviewing new referrals. The starting points ('0' stage) of snowball should be drug addicts identified by the interviewers in the locations where drug users gathered. These locations could be identified thanks to police information, former drug users and those assisting drug users.

The study could be carried out with the use of qualitative and quantitative methods of data collection. The in-depth interviews is usually focused on the drug career of the respondents, their present drug use pattern, life circumstances (health, family situation, source of income, housing, etc.), lifestyle, and experiences. Particularly the information on socio-demographic data and information on drug use patterns is better to collect using standardised questionnaire. Additionally, it is useful to collect information on drug users known by the respondent using a special form (nomination form) to estimate the number of drug addicts in the population.

Estimation of the prevalence of problem drug use

For indirect estimation of prevalence of problem drug use a number of techniques are used. Multiplier techniques (Taylor, 1997) work by making assumptions about the proportion of cases in the study population who experience a particular event in a particular time period, such as an estimate of the proportion of drug users in treatment at some point during a given year - the so-called multiplier and a benchmark number representing the total number of the drug-using population known to have been in treatment during the given year. Benchmark data are normally gleaned from various existing data sources, such as records of drug treatment centres, whereas multiplier data are generally extracted from findings emerging from the NRA studies. By applying the formula of a benchmark x multiplier, the overall size of the drug-using population can be calculated. Capture-Recapture techniques are also used where different population subsets are compared. For example, number of drug users apprehended by police, number seen in general hospitals and numbers attending for treatment of drug abuse (Comiskey, et al, 2001).

Methodological limits

The main limitations of drug epidemiology research derive from the nature of the problem studied. Drug use is illegal, stigmatised and therefore hidden. It is possible to collect only indirect indicators which are sensitive to various biases. The results are not valid in a statistical sense. However they are designed to provide the best possible picture of the 'real life' situation. Similarly the prevalence rates calculated are merely estimations and can not be considered as exact numbers of problem drug users in a country.

Each method and information source used to explore the extent and the nature of drug problem have own specific limitations.

Statistical reporting systems are not always reliable and valid. Data collected for administrative purposes not always include information useful for epidemiological analyses. The changes in reporting systems make it difficult to analyse time series.

Information collected using key informants approach are sensitive to bias caused by respondents' attitudes and selective knowledge.

Reliability and validity of results of snow-ball studies among drug users depends on many factors, not always possible to be fully controlled, such as sample selection, skills of interviewers, trust of respondents.
Therefore it is so important to use various methods and collect information from different sources.

Recommendations

1. Situation is evolving constantly and should be monitored accordingly. The monitoring systems should be created in harmonized way on various levels (local, regional, national, international). The common methodology of monitoring provides us with opportunity to achieve comparable pictures of drug problem and response and in consequence increase analytical usefulness of data collected. Conclusions and recommendations based on such approach are usually much more in-depth and much better justified.

2. Careful assessment at the local level is needed. The local level assessment is particularly important when the local level is responsible for service providing in terms of coordinating, planning and funding. The particularly important aspect is to include in the local assessment the issue of potential clients' needs and expectations.

3. Drug problem should be seen in the context of other youth problems and requires a complex response. Especially when drug treatment is concerned, the context of other problems play crucial role. When the drug problem is involved in other problems like alcohol misuse, unemployment or antisocial behaviours it is not enough to provide the drug treatment only. Without assistance of sorting out connected problems the drug treatment would be ineffective. Therefore so important is to have knowledge on the other youth problems and their interrelationships with drug problem.

4. Decision makers should take into account the epidemiological background and plan the treatment response accordingly. Important is to take into consideration the potential clients point of view, when their needs are the matter of defining.

5. International co-operation in the field of monitoring of trends in drug phenomena and response is recommended in order to truck the changes in drug and youth policy at the international scale. An international experience sharing seems to be more affective if it is based on common picture of drug issue generated by international monitoring system.

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Chapter 3 - Risk and protective factors in adolescent and youth drug use

Evangelos Kafetzopoulos

Summary

In recent years all European countries are facing an increasing problem of alcohol and illicit drug use among adolescents and young people. Curiosity or alleviation of the stress of the biological and social change are the main reasons for trying drugs, but the majority of young people do not continue to use drugs after some period of minor or major use. Whatever the reason of onset, however, there are some 'risk factors' or 'protective factors' that lead young people to substance abuse or protect them from it. Risk factors are arranged in three major domains: biological (e.g. genetic), psychological and behavioural (e.g. emotional disturbances, learning difficulties, impulsivity, behavioural problems) and social-environmental (e.g. parental use, low parental support, academic failure, peer interactions, lack of economic and social opportunities, etc.). Protective factors are usually the positive opposites of the above 'negative' factors. However, the risk is not only related to the presence or absence of certain factors. Every factor has different effects on each individual, according to his susceptibility, his knowledge and his attitude. Models of differential factor profiles for use onset and progression are of great importance for prevention and intervention programmes.

Adolescence and youth is a time of change on biological, cognitive, and social levels. Young people are faced with new situations, one of which is the use of alcohol and other drugs. They may turn to alcohol and illicit drugs to alleviate the stress associated with change, to fit in with peers, or they may be modeling the behaviour of a family member. Whatever the cause of onset, it can lead to increased drug use and other delinquent activities. Knowledge of the 'risk factors' that lead young people to substance abuse as well as of the 'protective factors' that protect young people from substance use and abuse can foster greater understanding of the total problem.

In general, the likelihood of young people aged12–18 years getting drunk or being offered cannabis, or any other illegal drug, as well as their willingness to try drugs, increases sharply with age. According to the French Escapad survey (Beck, 2001), among boys aged 13 and 14, the proportion who had lifetime experience of being drunk was 15.9 % and the proportion who had experimented with cannabis was 13.8 %. Among 17- to 18-year-olds it had increased to 64.5 % and 55.7 % respectively.

In a recent EU young population survey, 'curiosity' was given as the main reason for trying drugs (EORG, 2002). Of those who experiment with drugs, the majority do not continue to use them on a regular basis. In a small but significant minority, use escalates to intensive levels. General population surveys show that lifetime experience of illicit drug use is significantly higher than recent or current use (EMCDDA, 2003). Comparable information on patterns of use among regular drug users is less developed than in the field of alcohol research. This limits understanding about the patterns of drug use and, consequently, the development of effective responses.

Definitions of 'problem cannabis use' are being explored in some EU States, and it has been suggested that people who have used cannabis on 20 or more occasions during the past month are most at risk of developing a problematic pattern of use (Beck, 2001; EMCDDA, 2003 -

Dutch national report). By this definition, one out of every five people in the Netherlands who have used cannabis during the past month can be classified as 'at risk'. According to French ESCAPAD survey (Beck, 2001), in France 13.3 % of 18-year-old men, compared with only 3.6 % of 18-year-old women, fall into the 'at-risk' category.

Targeted surveys have shown that particular groups of young people have much higher levels of drug use than those found in the general national population. These are often young people who have been excluded from school or truanted, committed a crime, been homeless or run away from home, and those whose siblings are drug users (Lloyd, 1998; Swadi, 1999; Goulden and Sondhi, 2001; Hammersley et al., 2003). The United Kingdom youth lifestyles survey 1998/1999 found that prevalence of drug use was significantly higher among these vulnerable groups (EMCDDA, 2003). The size of these vulnerable groups at national level suggests that current school-based surveys are underestimating drug prevalence by failing to identify the populations of high-risk adolescents not found in the school environment. Comparable EU data on 'vulnerable groups' of young people at present are scarce. Young people who go out at night to particular dance music settings constitute another vulnerable group. The links between specific youth cultures and drugs are well documented, most recently in relation to the diffusion of ecstasy (MDMA) use (Griffiths et al., 1997; Springer et al., 1999). In techno dance settings, lifetime prevalence of ecstasy use ranges from 12.5 % (Athens) to 85 % (London), compared with a lifetime prevalence of 1 % (Greece) and 8 % (United Kingdom) among the general young adult populations (EMCDDA, 2002).

Researchers over the past two decades have tried to determine how drug abuse begins and how it progresses, especially in these vulnerable groups, defining risk or protective factors. Risk factors are defined as '. . . those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected at random from the general population, will develop a disorder' (Mrazek and Haggerty 1994, p. 127). Protective factors are those that, if present, make it less likely that such a disorder will develop. In the case of drug abuse, risk factors can be considered the life events or experiences that are associated with an increase in problematic alcohol and other drug use (Hawkins et al., 1992). Resilience is based in the idea that some individuals who are exposed to risk factors (and hence should be more likely to develop a disorder) do not experience the disorder. Therefore, these otherwise susceptible individuals appear to be resistant to the effects of risk exposure; that is, they are resilient. Some investigators suggest that such resilience results from factors that buffer the at-risk individual from the adverse effects of exposure (Anthony and Cohler, 1987).

Risk and protective factors encompass several meanings or levels of explanations ranging from simple statistical associations with a disorder (for example, heart disease, mental dysfunctions, drug dependence), to a predisposition for development of (or resistance to) the disorder, to the actual mechanisms responsible for causing or preventing a disorder. Hence, risk and protective factors can be markers (surface indicators), modifiers (augmenting or amplifying influences), or mediators (primary 'causal' mechanisms) of drug use susceptibility and related outcomes and phenomena.

These categories of factors represent varying levels of scientific certainty or specificity about the nature of the influence that a given factor can have in directly producing a risk or protective effect on a particular drug use outcome or status. For example, knowing that an individual is a

child of an alcoholic provides a surface indication (a marker) that a person is at heightened risk for negative alcohol use outcomes (for example, abuse and dependence). However, that marker designation does not specify how the risk is generated. For example, the risk could be generated through genetic loading resulting in increased receptor sensitivity to alcohol. Or the risk could be through a child's exposure to parental drinking models in the home environment. In this example, 'familial history' can act as a marker, modifier, or mechanism. In fact, one of the important scientific challenges in the drug abuse field is sorting out the nature and strength of associations between factors known to be related to use status and outcomes and the manner in which factors exert their influence (Rothman, 1986; Baron and Kenny, 1986; Rogosch et al., 1990).

In early work, risk factors were drawn from a limited range of biological, psychological and behavioural, and social and environmental variables thought to be related to drug use. More recent efforts (for example, Newcomb, 1995; Pandina et al. 1992; Hancock, 1996) have dramatically increased the range of risk factors to be included and have begun an assessment of the interplay between risk and protective factors and their relative contribution to important variations in drug use patterns and outcomes. A number of other key concepts emerge consistently across a wide range of studies and relate to the general manner in which risk and protective factors behave in regulating drug abuse susceptibility.

The following summarizes the general characteristics of risk and protective factors (Pandina, 1998):

- They are cumulative or synergistic.
- They differ qualitatively and quantitatively.
- They vary in importance across individuals or groups.
- They vary in influence at different times during the life cycle.
- They vary in significance for the emergence of drug use stages and outcomes.
- They are subject to change and can be significantly reduced or induced.

The central concept is that risk and protective factors are cumulative in impact. Thus, the greater the number of risk factors, the higher the susceptibility. Conversely, the accumulation of protective factors appears to reduce risk.

In the past, the emphasis of adolescent addictions research has been on risk factors associated with adolescent substance use. Recent research indicates the need for a broader perspective encompassing both risk factors and protective factors. Protective factors function as a buffer highlighting the interplay between risk and protective factors. The severity, frequency, and duration of both risk and protective factors affect the adolescent's ability to remain resilient against substance abuse and gambling.

How risk and protective factors act to balance each other is yet to be determined. There is some preliminary information (Hancock, 1996) that risk and protective factors may behave somewhat differently in influencing susceptibility. For example, protective factors appear to be more important for more long-term use patterns and cumulative outcomes, while risk factors are more important for short-term, more immediate use patterns and outcomes.

Risk and protective factors can be arranged in three domains or classes, which, in turn, can be divided into relevant subclasses as follows:

1. Biological
   - Genetic
   - Constitutional

2. Psychological and Behavioural
   - Internal processes
   - Behavioural action profiles and repertoire
   - Interpersonal interactional styles

3. Social and Environmental
   - Familial interactions
   - Peer interactions
   - Community interactions

Biological factors can be characterized as genetic (related to a profile of inherited or gene-transcripted features) or constitutional (biological tissue changes induced by a variety of factors ranging from stress to drug exposure) (Wise, 1996; Piazza and LeMoal, 1996). Psychological and behavioural class variables include those indicative of internal processes (such as thoughts, feelings), behaviour-action profiles and repertoires (drug-seeking, general deviance), and interpersonal interactional styles. Social and environmental subclasses include family, peer, and community relationships. Class and domain factors include both structural and dynamic (that is, process-oriented) properties. Factors within a given domain may be classified as simple surface markers or as factors playing a specific role in moderating or mediating use outcomes. One of the important challenges to the scientific community is unravelling the manner in which factors singly or in combination operates to influence use behaviour and outcomes.

In Table 1 there is a schematic delineation of the main risk and protective factors within the above major domains.

Table 1. Risk and Protective Factors within Major Life Domains

Major domains	RISK FACTORS	PROTECTIVE FACTORS
Biological	• genetic profile • family history of alcoholism or drug abuse • family history of impulse disorders, such as conduct disorder or antisocial personality • family history of affective disorders	
Psychological and behavioural	• sensory processing disturbances • neurocognitive alterations • personal history of affective disorders or impulse disorders • emotional disturbance such as depression or anxiety. • social skill deficits • positive attitude about use • impulsivity • hostility and aggression • alienation • low self-efficacy/esteem • negative life events/experiences • rebelliousness • learning difficulties • behavioural problems • temperament • physical trauma • early age of onset	• social skills and responsiveness • emotional stability • positive sense of self and high self-efficacy/esteem • positive life events/experiences • problem solving skills • flexibility • resilience
Social and environmental		
Familial interactions	• parental abuse of alcohol, drugs, and/or gambling • lack of familial connectedness • remaining in an abusive or conflict ridden family • low parental support • low parental monitoring • poor family management, discipline, and problem solving • favourable attitudes toward teen alcohol, other drug use and gambling • ineffective parenting skills, especially for children with learning disabilities or behavioural problems	• positive bonding • emotional support and absence of severe criticism • a sense of basic trust • high parental expectations • clear rules and expectations • parental monitoring
School interactions	• academic failure	• caring and supportive school environment

Major domains	RISK FACTORS	PROTECTIVE FACTORS
	• negative, disorderly, and unsafe school climate • low teacher expectations • lack of clear school policies regarding drug use • lack of commitment to school • withdrawn/aggressive classroom behaviour	• high expectations • clear standards and rules for appropriate • behaviour • youth participation, involvement, and • responsibility in school tasks and decisions
Peer interactions	• involvement with peers who use and have • favourable attitudes towards alcohol, other drugs, and gamble • involvement with peers who engage in other problem behaviours • peer rejections • poor social skills	• involvement with positive peer group activities and norms • social competencies such as decision making skills, assertiveness, and interpersonal communication
Community interactions	• lack of economic and social (including educational) opportunities • availability and projected attractiveness of drugs and drug use • community norms that promote or permit substance use and gambling • living in impoverished neighbourhoods characterized by high crime rates and alienation • high rates of transition/mobility • cultural disenfranchisement	• community perceptions of negative social and health consequences of drug use • caring and supportive community • economic and social (including educational) opportunities • high expectations of youth • being media literate • counter-advertising messages (youth educated about advertising) • religious based activities • community sponsored activities

Source: Brounstein and Zweig (1999); Centre for Addiction & Mental Health (1999); National Institute on Drug Abuse (2003); Hogan (2000).

Although drug abuse is a disease and some researchers model drug abuse as an infectious disease (cf. Rossi 2002), unlike infectious or other diseases, drug abuse is influenced more by social/environmental rather than individual factors. However, once individuals begin to abuse drugs, their behaviour and their brains and bodies change, and biological and/or psychological factors become more dominant.

Many researchers agree that the key social factors that influence the initiation of drug use include the public's tolerance of the use of drugs, measured by perceptions of negative social and health consequences of the use of these drugs, as well as the availability of drugs. For instance, researchers for the USA Monitoring the Future Study found that prior to an upturn or downturn of drug use among adolescents, there are changes in adolescents' perceptions regarding the harmfulness of drugs and the social acceptance of drug use (Bachman et al., 1990; 1998). Indeed, the upturn in drug use among the American adolescents since 1992 may be related to their

changing perceptions of the harmfulness of the use of drugs (Sloboda, 2002). Until the early 1990s, during a period of declining drug use, teens' perceptions of harm associated with drug use were comparable to those of their parents' age group. Since 1992, when drug use began to increase, teens' perceptions became more like those of 18- to 25-year-olds, the age group showing the highest rates of drug use over time.

The availability of drugs and the ways in which drugs are marketed also has been considered as an important key factor for the initiation of drug use, as well as which types of drugs are used and who uses them (Van Etten and Anthony, 1999).

However, recent research has led to a consensus that no single factor from any domain - biological, behavioural, or environmental - appears to be clearly and consistently identified as the single key factor, either risk or protective, that regulates risk susceptibility. Varying factor patterns may be more influential for some individuals or groups displaying similar characteristics. In a similar vein, some clusters of factors may be more influential in producing or limiting susceptibility for different developmental phases of the life cycle. Further, various stages and phases in the continuum of drug use behaviours and outcomes may be influenced differentially by distinctive factor constellations. Thus, factors significant for earlier stages of use initiation (such as 'trying' marijuana) may differ qualitatively and quantitatively from those related to the transition to dependence (for example, heroin addiction or alcoholism). However, research to date indicates that many of these risk factors, singly and in combination, are related also to other dysfunctional outcomes, such as delinquency, violence, or serious mental disorders. In fact, it is not uncommon for drug-abusing individuals to have overlapping problems (cf. Compas et al., 1995).

Most significantly, research has demonstrated that many factors, though not necessarily all, can and do change across time in many individuals. Thus, the fact that many risk and protective factors appear to be malleable suggests that these are sensitive to natural events and may be influenced by extraordinary events such as prevention or treatment interventions. It is this last important consideration that forms the basis of many of the prototypic intervention programmes described by intervention scientists (Botvin et al., 1995; Brook et al., 1989; Eggert et al., 1990; Kumpfer et al., 1996; Donaldson et al., 1994; Hawkins et al., 1992; Pentz et al., 1989).

The results of the work on the earliest models raised the possibility of developing a practical approach to identifying at-risk individuals or vulnerable groups. The research also suggested that through inspection of the risk profiles, it might be possible to develop intervention programmes aimed at decreasing levels of risk associated with drug use in much the same manner as those earlier programmes aimed at cardiovascular disease. The most recent research continues to support those earliest findings and emphasizes the relationship, albeit complex, between risk and protective profiles, drug use phenomena, and intervention approaches (Tobler, 1992).

Furthermore, the most recent work linking risk and protective factors to drug use phenomena suggests a higher level of complexity than the initial risk factor models anticipated (Pandina, 1998). Yet, the basic principles of the models have been retained. The earliest models strongly suggested the appropriateness of linking prevention efforts to our understanding of the way risk and protective factors operated to influence susceptibility to drug use. The more refined models emphasize the need to base prevention and other intervention programmes on an understanding

of risk and protective factors, including how they operate in different individuals at various stages in the life cycle, differential effects on drug use staging, and the extent to which they may be modified by specific intervention approaches. The research community is actively investigating a series of fundamental issues that, when resolved, could have major significance for prevention efforts and other intervention strategies. These include the relative importance of differential factor profiles for use onset and progression to more serious stages and problematic outcomes; the differential impact of factors operating at varying life cycle phases (for example, childhood, adolescence, young adulthood, mature adulthood) (Kandel et al., 1992; Jessor, 1993); and the degree to which factors (including genetic mechanisms) are sensitive to modification.

Recommendations

1. A number of significant implications flow from the observations of etiological researchers working to understand the interplay of risk and protective factors. Intervention programmes must demonstrate understanding of the nature of what they are attempting to prevent or treat. The design of intervention programmes can profit substantially from consideration of the pattern of risk and protective factors within a given individual, target group, community, or social institution; and intervention strategies should be engineered on information derived from an understanding of the complex interaction and operation of these risk and protective factors.

2. Furthermore, intervention programmes should seek to reduce immediate risks and promote more long-term protective factors in target groups or settings. The importance of particular risk and protective factors may change across groups, settings, and developmental periods of the lifespan. Hence, the general strategy for any kind of intervention must encompass these facts. Research to date indicates the import of long-term commitment to intervention programmes across childhood, adolescence, and adulthood. Consequently, 'interventionists' need to integrate multicomponent, multistage programmes at many different developmentally sensitive periods.

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Chapter 4 - How to establish contact with young people who use drugs?

Isidore Pelc, Pol Gerits, Marie Absil

Summary

In the first part of this chapter, we present a review of the literature concerning techniques for establish a contact with young people. Two techniques are promising more especially motivational interviewing and outreaching. Implementation of these techniques is illustrated by examples of good practices. Furthermore, we underline the importance of media and telematics (internet, virtual reality) as communication resources available to general public, to keeping in touch with the young people. Finally, the role of primary care actors, educators, parents as well as peers are highlighted in their role as facilitators.

Introduction

Currently, we are observing increasing trends of a drug problem in most European countries. According to all available information sources youth is a group predominantly affected by the problem.

Most of these young people do not have any idea about the degree when their consumption pattern becomes problematic and, as a consequence, the majority does not ask questions about the implications of their drug consumption on their health and so they are not motivated to change their behaviour or to seek counselling.

In addition, there is some preliminary evidence that most of the currently used prevention actions such as hotlines do not attract the attention of young people.

Preventive projects are the most common projects but this approach is not appropriate for our research since prevention mainly targets non-consumers. Hotlines have been set up in order to inform young people about the different products, to listen to them and to give advice on the different treatment methods.

The telephone helplines in Belgium such as Infor-Drogues for the French speaking people and Druglijn for the Dutch speaking people have been available for several years. They are available 24 x 7 and offer helpful information, neutral and benevolent support, psychological therapy or guidance on where to seek help.
The results of studies (Belgian national report on drugs 2004) show that the majority (78%) of the people who call these help-lines are not drug users. Furthermore, the majority of callers are not young people .For the age group under 18,. only 3,2% use 'Infor-Drogues' and 7,5% use the 'Druglijn';. For the age group between 18 and 25 years, 10,7% use the Infor-Drogues and 20,4% use the Druglijn. Finally,, the age group of 36-50 years represents the majority of the callers (more than 30%).

Thus, hotlines do not seem to be very popular among young people. Perhaps the use of new technologies, such as the Internet, would be more effective.

It is therefore important that the education, the well-being and the health system attract the attention of these young people and motivate them to change their behaviour. And if these young people are motivated to change their consumption patterns, how can we then increase the compliance behaviour among these young people?

The purpose of this chapter is (1) to present a brief overview of the literature concerning strategies how we can motivate young people to seek treatment, (2) to give some new ideas how we can integrate new technologies and finally (3) to put emphasis on the important role of general practitioners, peers, parents and educators

Part I - The state of the art: Key concepts and current practices

1 Literature search

To select articles for inclusion in this literature review, we carried out a computer-assisted literature search using Medline and Psychlit from January 2000 to the year 2005. Key words used in the computer search included: patient, adolescent, treatment, substance, compliance, education, psycho-education, computer games, drop-out, motivational interviewing, pre-motivational and outreach. Different combinations of these key words were used in our computer-assisted literature search. Outreach was used with each combination of the above mentioned key words. We include in Table 1 only these combinations of key words which were given hits. We limited our search to articles in French or English.

1.1 Criteria for inclusion in the literature review

In order to be included in the literature review, studies had to meet each of the following criteria:

The study could only include young people between 13 and 18 years old who use substances (including alcohol or tobacco)

An article was relevant if it concerned (1) health promotion interventions or pre-treatment interventions or brief interventions and (2) treatment compliance strategies or strategies to reduced early treatment drop-out.

1.2 Results of the computer-assisted literature search

For a summary of the results of this computer-assisted literature search, see Table 1. From the two databases (Pubmed and Psychlit), only 22[1] articles were relevant.

[1] The number of relevant items does not correspond to the final total because two different combinations of key words can have the same items as a results.

Table 1. Results of the computer-assisted literature search:

Keywords	Number of hits		Number of relevant hits		Number of relevant hits in Pubmed and Psychlit
	Pubmed	Psychlit	Pubmed	Psychlit	Total
Motivation+adolescent+treatment+substance	0	0	0	0	0
Treatment+compliance+adolescence+substance	0	0	0	0	0
Patient+education+substance+adolescent	0	0	0	0	0
Psy-education+motivation+adolescent+substance	395	0	0	0	0
Computer-games+motivation+treatment+substance	3913	0	0	0	0
Drop-out+adolescent+substance+treatment	614	0	0	0	0
Motivational+interviewing	30	246	7	12	15
Pre-motivational+technique	0	0	0	0	0
Pre-motivational+interview	0	0	0	0	0
Treatment pre-motivational	548	0	0	0	0
Pre-motivational+treatment	0	0	0	0	0
Motivational+treatment	0	7	0	0	0
Outreach+drugs+abuse	10	4	2	1	3
Outreach+drugs+use	19	6	2	1	2
Outreach+adolescent+treatment+substance	29	2	3	1	3
Outreach+substance+abuse	49	12	2	2	2
Total					25

Of these, fifteen relevant articles for the key concept 'Motivational Interviewing' (MI). One concerned a review of the major theoretical foundations and influences of brief interventions (including motivational interviewing) (O'Leary Tevyaw & Monti, 2004). Three articles were about theoretical description of interventions (Levy, Vaughan & Knight, 2002; McCambridge & Strang, 2003; Monti, Colby & O'Leary, 2001). Ten articles were about evaluation studies of either motivational interventions or either brief interventions (Baker, Lewin, Reichler, Clancy, Carr, Garett, Sly, Devir, & Terry, 2002; Battjes, Gordon, O'Grady, Kinlock, Katz & Sears, 2004; Dunn, Deroo & Rivara, 2001; McCambridge & Strang, 2004; McCambridge et al., 2005; Mullins, Suarez, Ondersma & Page, 2004; O'Leary, Brown, Colby, D'Amico, Fader, Geisner, Larimer, Maggs, McCrady, Palmer, Schulenberg & Monti, 2002; Tait & Hulse, 2003; Vendetti, McRee, Miller, Christiansen, Herrell & The Marijuana Treatment Project Research Group, 2002; Woodruff, Edwards, Conway & Elliott, 2001. One article is a comment on McCambridge and Strang (McCambridge & Strang, 2005).

The evaluations seem to show that MI is effective for the adults. Further research is needed on how the motivational interviewing intervention can be adapted for young people who use drugs for recreative purposes in young people.

The motivational approach aims at helping people and patients to develop their motivation and to make the decision to change. Based on the feeling of ambivalence felt by substance users and prioritising short-term gratification, it provides a theoretical framework allowing to use the feeling of ambivalence in order to make the person, the patient, want change.

It is very common among substance users to find the coexistence of conflicting feelings regarding their abuse of substances. Each of these users will first resist and then give in, and so on. One way to approach this feeling of ambivalence is to use the metaphor of the decisional balance (advantages and disadvantages of consumption and non-consumption, Janis & Mann, 1977).

One of the bases of the motivational approach is to consider motivation not as a trait but as a state. In this sense, motivation can fluctuate, be modified, influenced, etc. The state of motivation will enable the person to think about change.

Prochaska & Di Clemente (1982) proposed to differentiate the stages of change. These different stages are part of the motivational approach and help to address the motivational needs of a person according to his/her situation within the identified processes of change.

The first initial stage that the authors describe is the **precontemplation stage**. According to them, at this stage, the person is not yet considering the possibility of change and has not yet admitted that the drug consumption is a problem. Many young people are in this situation. They might take substances for the first time and when the consumption becomes problematic, it still seems to be under control. In this situation, the authors agree that the best approach consists of making the person aware of the problem.

For example, this can be done by emphasizing the adverse health consequences of taking

The second stage described by the authors is the **contemplation stage**. This is a crucial phase when the person might realise that it is important to make changes and yet still has difficulties to reach a clear decision. This is a stage characterised by a feeling of ambivalence, which also concerns many young people. Realising that their drug consumption might not be under control anymore or that it is starting to become somewhat harmful, the desire of making changes arises but is quickly counterbalanced by other arguments. In such a situation, it is important to try to help the person decide in the direction of change and to avoid any confrontation.

The following stages (determination, action, maintenance and relapse stage) make reference to the implementation of change, to the change itself and to its maintenance. Therefore they do not deal with the aspect of building the contact with the young person with problematic substance misuse. However, as far as the maintenance of change and the maintenance of contact with the young person are concerned, it is important to notice that, according to the authors, relapse is the rule rather than the exception. Today some new considerations put the existence of the different stages as highly controversial. It is estimated that each drug user follows its own and specific pattern of change and as a consequence do not follow all the stages where described initial in the model of Prochaska and DiClemente (West, R., 2005).

As mentioned before, one of the ways to establish contact with young users and their help seeking would consist in providing information, which would allow them to become aware of the problem and then become motivated enough to consider seeking change. In order to reach this stage, theoreticians of motivational interviewing focus on five fundamental principles: (1) Express empathy: to accept the affective state of the person, not his or her experience. To consider the feeling of ambivalence as a normal process; (2) Develop discrepancy: to bring the person to express the differences that coexist between what they would like to be and their consumption pattern; (3) Avoid argumentation: confrontation leads to resistance and will not encourage change; (4) Rolling with resistance: it is the patient's choice. If there is resistance, the practitioner should avoid strengthening resistance as the more a patient resists the less likely any change will occur; (5) Supporting self-efficacy: by supporting and promoting the patient's perception of their own capacities regarding the envisaged change.

1.2.1 Example of current practice: The cannabis clinic in Belgium.

The « cannabis clinic » was founded in 2002. Its label « cannabis clinic » emerged from a particular reflection on its way of functioning. By openly recognising being specialised in cannabis, it fights taboos and suspicions. There is no doubt that those who seek help at the clinic have problems with cannabis use and sometimes other drugs as well. With this approach, the cannabis clinic puts itself in a very specific position. In fact, instead of looking out for drug-related problems among patients, the clinic invites the people with this type of problem to come and seek help. In an effort to clarify its position regarding the services that the clinic provides, it carries the name « cannabis », which will directly 'speak' to the substance users. By using scientific terminology, it avoids to convey stereotypes and other clichés that are easily associated with words such as « dependence », « drug addiction», etc. It clarifies who it addresses and why.

of the motivational approach, it takes into consideration a wide range of therapeutic methods in order to offer the best possible guidance.

1.2.1.1 The demand

The majority of the patients attending the cannabis clinic do it by their own initiative and have heard of the service by word of mouth. For the remaining patients, the demands come from families, schools, juvenile courts or others. The reasons for seeking help are mainly linked to the substance addiction, the occurrence of sleeping disorders, mood swings, cognitive disorders, school-dropout and/or delinquent behaviour.

It is interesting to note, through the diversity of different requests, that the patients of the cannabis clinic are not all at the same stage of change. According to Prochaska & DiClemente's classification (1982), there will be patients in a precontemplation stage but also in other stages. The services provided by the cannabis clinic help to deal with these different situations.

1.2.1.2 Available services

1.2.1.2.1 Information:

The aim of the information service of the cannabis clinic is to answer the questions of the patients and their families and friends regarding the substances and the consequences of their use. As mentioned before, other services are also available to provide information, such as telephone hotlines. However, it is important to mention that patients who attend the cannabis clinic are mostly not at all well informed.

At a theoretical level, the delivered information gives a feedback to the non-informed patients, promoting the awareness-raising of the problems linked to the use of cannabis. This stage is therefore particularly favourable to patients in a precontemplative or contemplative stage.

1.2.1.2.2 Evaluation

The cannabis clinic offers the patients a medical check-up with a psychosocial, physio-biological and neuropsychological focus. That way, it enables to cover the whole range of requests mentioned above. The results of these evaluations are provided to the patients and also represent indicators of motivational interviewing. For the patients in a precontemplative stage, it is important to have access to better information and to be made aware of the state of their health. For those in a contemplative stage, the slightest deterioration of their health might make them decide to be in favour of change. For those in preparation, the evaluation is the first step of change, just before taking action.

1.2.1.2.3 Guidance and therapy

For patients in the so-called action stage, an outpatient or residential treatment consisting of reducing and eventually stopping consumption are available, as well as a psychological support

to what the GP prescribes, the patient is given clinical guidance on treatment options, including counselling sessions with a specialised therapist.

1.2.1.3 General facts

The cannabis clinic treats between 30 and 50 patients per month. 75% of the requests are requests for referral and 50% lead to therapy. .

25% of the requests therefore concern patients who did not come forward for help themselves. In general, these patients are either teenage dropouts (with or without delinquent behaviour) or adults with a psychological or psychiatric disorder. More than ever, the motivational interviewing techniques prove to be especially efficient with these types of patients. Avoiding confrontation, rolling with resistance, etc. are very useful techniques to facilitate and maintain the contact with the patients and to promote change.

1.2.2 Outreach working

The studies obtained with the keyword « outreach » are different and more diversified. One article proposes the adoption of a strengths approach as a strategy for developing resilience in families (Usher, Jackson & O'Brien 2005). The conclusion is that health workers (including nurses) are well positioned to support families who are dealing with adolescent drug problems. One article concern street-based outreach for linking female sex workers with substance abuse treatment (Nuttbrock, Rosenblum, Magura, Villano & Wallace 2004). The searchers conclude that a variety of factors affect motivation for substance abuse treatment among female sex workers, and that street-based outreach is a highly effective modality for linking this population with much needed treatment. One compares the efficacy of the incentives vs the outreach workers (Malotte, Hollingshead & Larro 2001). Monetary incentives were clearly superior to active outreach. Active outreach in combination with monetary incentives did not increase adherence over incentives alone. One is a qualitative study on the adolescent and parent perceptions of outpatient substance abuse treatment (White, Godley & Passetti 2004). This study illustrates that adolescents and their parents are important sources of information about the treatment experience and may provide useful ideas for enhancing treatment engagement and retention. One concerns the (IRS) Internet recovery for substance abuse and alcoholism (Hall & Tidwell 2003). An obtained sample of more than 1000 surveys yielded a usable data analysis sample of 928, indicating the widespread use of IRS and diversity of service users, using more than 70 different recovery programmes and services. One study describes the mobile outreach services for young people in Camden and Islington (Edgecombe & O'Rourke 2002). A notable success has been that the Health bus attracts as many young men as young women. The last study describes the adolescent opinions about help seeking and help seeking barriers (Wilson & Deane 2001). Transcript analysis revealed several themes. Relationship and trust were key approach factors for current help seeking. Memories of successful prior helping episodes were also important. Education about appropriate help seeking might reduce help-seeking barriers. Education should include key adult who act as gatekeepers within adolescent networks (e.g., parents and teachers). Assertive outreach and follow-up might be important factors for continued help-source engagement. Themes provide a basis for suggestions about ways to facilitate

We have decided to make a distinction between « passive » and « active » outreach. We call « passive outreach » the projects where the outreach workers take direct contact with young people on their places of life (festival, nightclub, school…), without the explicit request of these young people. The outreach workers answer the request of young people (information, councils…), consequently, their work is regarded as « passive ». Within the framework of passive outreach, they are thus the young people who must take the initiative of contact. We call « active outreach » the projects in which the outreach workers make an active follow-up of the young patient (e.g. Phone call after a missed appointment…).

1.2.2.1 Example of current practice of passive outreach

Here is an example of project, which illustrates the concept of 'passive outreach'

'Canal J' is a support service for young people in an open environment launched an innovative prevention project in the region of Hainaut (Belgium) and recognised by the French speaking community of Belgium (Vanthournhout A. 2001). This region had recently been known for a wide range of rave parties where thousands of young people met each week to dance to the sounds of techno-music. At the same time, the use of synthetic drugs increased drastically.

Specific working methods were developed over time. Flyers[2] were made and used along with encounters between young people and adults. This experience showed that, taken individually, these two elements were less efficient. The flyers and the encounters between young people and adults have become the main pillars used to disseminate information aiming to change the behaviour and consumption patterns among young people.

In practice, this means that flyers are available on a table in the venues where the parties take place. Close to this table, specialised social workers involved in the project are willing to talk to anyone who is interested. Their presence is an opportunity to establish a dialogue but it is by no means intrusive; no one will be forced to talk.

The table with the flyers attracts the young people who are curious to see what these flyers are about. Many of them take one or several copies with them so that they can read them later. Some stay close to the table and establish a dialogue with the social workers. Others come back after having read the flyers and there are also those who encourage some of their drug-consuming friends to have a look at the flyers... This preventive initiative is therefore supported by peer-help, which is known to be a very important factor among young people. These encounters represent a first contact with the health system and can trigger a reflection among young people on their own psychotropic drug consumption. It is not rare to see a young person who has been to one of these rave-parties enter a treatment centre shortly after.

This initiative has shown the importance of actions specifically targeted at young people. Young drug users often do not identify themselves with the image of the heroin drug user and the

[2] Flyers are small, colorful and attractive brochures that contain information on the products and advice on the

approach therefore has to be different. These young people often have the feeling that they control their consumption, and for many of them, it is actually the case. Actions such as « Say no to drugs! » or « You are ill and we have come to help you » often do not reach their aim. This is the reason why a non-moralising and non-normative approach has more of a chance to be successful among this target group. It is indeed important not to constantly remind them of how drug-use is prohibited; outlining all the aspects of drug consumption (positive effects, risks and means to avoid it) makes the young people feel that they are being more respected by the social workers. The young people become less suspicious after a while and are more willing to establish a constructive dialogue with the social workers, which in turn might help them to reflect on their own psychotropic drug consumption. This reflection might eventually lead them to a health care centre, which can be a first step to abstinence. This project is indeed very interesting but there is a lack of evaluation, which makes it difficult to determine its real efficiency. Moreover, the programme does not reach enough young people. We therefore decided to concentrate our research on the international literature available in order to identify best practices around the world aiming to attract young users to get in touch with the health care system.

A possible example of a good practice is to develop a flyer based on the above-mentioned theoretical model to attract the attention of the young people. In this flyer the following topics must be included (McCambridge & Strang 2003) (1) lifestyle, stresses and substance use; (2) health and substance use; (3) strategies of self-monitoring and self evaluation substance use to increase the awareness of a possible problematic use; (4) making a cost/benefit analysis of quitting of substance use (what is really important: values and goals now and at the future). This flyer can also been integrated into websites visited by young people

Most of current practices are not evaluated. More evaluation research is needed, especially for young people.

1.2.2.2 Active outreach

In the Norwegian Public Report of 1980 the importance of the concept active outreach was underlined. Lie (1981) defined the concept as following:

- Seek out individuals and groups of children and young people who need support or help, but who cannot be reached, or are unable to be reached adequately, by existing organisations and institutions.
- Establish contact with these at the earliest possible stage.
- Motivate them to engage in alternative pursuits (school, work, leisure) and where necessary to seek other forms of help or treatment.
- Arrange alternative pursuits and, where necessary, other remedial or treatment offers.
- Teach young people to make use of the established remedial system and to be conducive in ensuring that the remedial system provides young people with the most adequate service possible.
- Prevent the development of problems for children and young people, either indirectly via environment-promoting measures, or directly by working in child and youth circles.

This Norwegian project is based on traditions relating to outreach social work. Around 90 municipalities and urban districts in Norway employ such occupational methods at outreach units of varying sizes and with various target groups (Pedersen, 2004), but which all have one common objective; reaching young people who are at risk (between the ages of 12 and 25) through early intervention, and thus preventing problems from occurring or ensuring that young people come into contact with the remedial services as early as possible.

Something is supposed to happen to the young people during the course of their contact. Engaging in a considerable amount of continuous contact with one young person over a long period of time may conflict directly with the outreach role. Having contact with a young person should not make that person dependent on the outreach worker, but should qualify him/her to stand on his/her own feet and benefit from the remedial measures that are available. Outreach workers cannot sit back and say nothing to decision-makers about the poor living conditions of a young person or defective remedial measures. Nor can they evade trying out new ways of facing challenges by trying and making mistakes. Both are necessary and important if they are to help in the improvement of existing services and the development of new ones.

Direct contact with young people via follow-up, crises and talks will provide a challenge to outreach workers who would also like to be very available. Outreach workers become important people for a while due to the confidence that they build up in some young people. There are formal expectations linked to this role:

- a high percentage of working hours should be spent on outreach work
- priority should be placed on the establishment of contact with new young people
- focus should be placed on social change work
- helping young people to make use of existing remedial measures
- passing on young people to partners
- documentation of the living conditions of young people requiring help
- revealing defects in existing services
- trying out new working methods when engaging in social work directed at young people
- notifying and making the administrative and political authorities responsible about the situation and requirements of young people

The above expectations can be said to be main expectations. It is necessary for the mandate – the formal expectations – of individual outreach services to be defined in more detail. This can in itself help to clarify things for the social workers who will be filling the role, the young people in the target group and partners elsewhere in the remedial system.

Part II - Media, Internet and virtual reality

2.1 The use of virtual reality

A possibility of good practice is to use new technologies, especially virtual reality to inform and motivate young people to change their behaviour pattern of substance use (Woodruff, Edwards,

With this approach, it is also possible to reach a whole group of young people (rural and not rural).

2.2 Examples of current practices

The new modes of communications can also be used to contact the young people. Here some projects in Belgium and Switzerland.

In Belgium, the radio programme 'Vide ton sac' makes it possible for the teenagers to raise questions with a professional invited in the radio programme. This programme is not centred on the problems of use of drugs in particular but well on the problems, which the teenager can encounter in general (emotional and sexual life, school, relations between generations, drugs...).

Internet is on the way to become an important media in the diffusion of information and the making of contact by the development of Internet sites for the teenagers. These Internet sites tackle the problems of the teenagers in general thus; they tackle also the problems of use of drugs. The young people can send their questions by e-mail, take part in forums of discussion, find information compiled by specialists and deliver their opinion about the subjects, which touch them.

As example, we can cite the two following internet initiatives: 'CIAO' in Switzerland and 'Paroles d'ados' in the French speaking community of Belgium.

Part III - The role of general practitioners, peers, parents and educators

3.1 The role of General Practitioners

A better coordination between general practitioners and the second-line practitioners as well as a better source of information for general practitioners on the possibilities of follow-up treatments should help to encourage the general practitioner to become the first contact person when seeking help. For the time being, general practitioners are still sometimes overwhelmed by the different mental health problems and are often not able to help the patients seeking help about problems with substance abuse. The example of the EOLE project in the Brussels region is a first step to help general practitioners to be the first contact person, also regarding psychiatric and/or drug-related problems. The EOLE project is a support telephone help-line for health professionals confronted with mental health patients. The help-line is available 24 hours/day and enables the first-line practitioners to get in touch with mental health professionals.

These mental health professionals can – online – help the G.P. in the management of individual and specific cases, for difficulties such as: how to motivate the patient for specific treatment; when and how to propose a psychiatric consultation or hospitalisation; help the G.P. to find the best appropriate specific institution for his patient; how to manage suicide risk in a depressive patient; which choice of psychotropic treatment to adopt; how to speak about dependency to medication or alcohol drug for the patient ; helping the G.P. to understand what is going on and helping the G.P. to analyse the demand of the patient, etc…

competent to give an appropriate treatment to the patient or, in the opposite case, to transfer him to specialized mental health services.

There are still 'a priori' considerations and stigmatisation in the first line practitioners for considering the effectiveness of psychosocial consideration for medical patients so that asking help to psychologists, psychiatric nurses and psychiatrists still remains a difficult way for a lot of G.P.

Nevertheless, G.P. who tries this service quickly becomes frequent users of this helpdesk.

The EOLE team is also developing good practice guidelines specifically for the management of mental health provided by the G.P.

3.2 The role of Peers, Parents and Educators

Besides the role of health professionals, the role of peers, parents and educators are also important to motivate young people to stop the use of substances. We only find one study, which evaluated peer-enhanced motivational interviewing in reducing subsequent alcohol use rate among college students. In this study, peer-enhanced motivational interviewing was compared with individual motivational interviewing. The results of this study indicate that both approaches were equally effective (O'Leary, Monti & Colby, 2002).

The problem with parents and educators is that they often not very well informed about substance use in general. Therefore a specific flyer with following topics (1) lifestyle, stresses and substance use; (2) health and substance use; (3) principles of motivational interviewing can be useful to increase their commitment to help young people to change their unhealthy life style.

Usher and al. (2005) showed that health workers (including nurses) are well positioned to support families who are dealing with adolescent drug problems. In their study, they propose the adoption of a strengths approach as a strategy for developing resilience in families.

3.2.1 Examples of current practice in witch the role of these actors are important

3.2.1.1 School located prevention in Poland

Since 2002, the Ministry of Education and Sport has obliged schools to develop and carry out their own children and youth problem prevention programmes adjusted to the needs and abilities of the school environment

The programmes should be based on:

- Identifying and diagnosing drug-related risks at school,
- Providing information on drug addiction and its consequences,
- Cooperation with parents of drug addiction-endangered children,
- Parental counselling.

In addition of the basic prevention, various programmes are envisaged during all the schooling of the young people:

- One programme engages all school community in the creation of the health environment (health promotion);
- One programme named 'School for parent and teachers' (described below, in the box);
- One annual campaign named 'Drug free universities'. The main objectives of the campaign are reduction of the prevalence of drug use among students and increasing the awareness of the community towards drug problem;
- One programme named 'School early intervention' (described below, in the box).

We focused on the programmes witch concern a first contact with young people.

'School for parents and teachers'– is the educational programme that is aimed at strengthening the protective role of parents and teachers as well as strengthens parent up-bringing ability. The programme contains series of educational training and workshops for parents or teachers, which are focused on the strengthening the protective factors such as, communication skills, problem-solving skills and good relations in family.

This programme has been conducted on national level for 10 years; it has the system of the staff training and the system of the periodic counselling and support. The number of prepared staff is about 3000 person, from whom1000 person is conducting the programme currently. On local level programme is implemented in the co-operation between local co-ordinator and the local authorities.

The Ministry of Education has implemented 'School early intervention' in schools since a year. The policy includes full implementation of programme in the education system.

The general objective of the programme is to change the drug-related behaviour of vulnerable children or children who are in the early stage of drug use. These objectives are achieving with the help of a short intervention addressed to family. The intervention covers such elements as diagnosis of drug-use, counselling and motivation for change of drug-related behaviour. The staff from educational system such as teachers and pedagogues is trained to implement and conduct this programme.

Specific objective of the programme is aimed at supporting the family in solving the drug problems.

3.2.1.2 An example of self-regulation programme

The SPHE programme is an example of a self-regulation programme for students in Ireland. It provides students with a unique opportunity to develop the skills and competence to learn about themselves and to care for themselves and others and to make informed decisions about their health, personal lives, and social development. All these decisions must be made in the context of

in particular from parents will be necessary for the successful implementation of a school's programme of SPHE.

Now we will give a more detailed description of this programme. The successful implementation of this programme demanded a clear school policy on substance use. While the best interests of all students and staff, as well as their health and safety, must be of primary concern to a school, a caring approach needs to be shown to those who may be using drugs or alcohol. Students should be involved in the preparation of such a policy. In challenging students to avoid the use of illegal substances, schools should strive to provide a drug free environment.

To further support these school policy and to create a sense of community, different co-curricular activities are organised. In these activities students and teachers are often working together towards a common goal. But they have particular relevance for the prevention of substance misuse in that they develop personal resourcefulness in students and, in simple terms, give them something constructive to do.

Further the creation of school-community links is an important for the successful implementation of the SPHE programme. Such links are significant for a module of SPHE at a number of levels. Firstly, they are important if the school is to be aware of the factors, which impinge on the life of the students outside and after school. If a substance use programme is to be credible for the students then it must take account of the reality of the students' lives. Secondly, such links can help schools to build on work on substance use being done in the informal sector through youth and community groups in the local area. In this way the students can receive a coherent and structured message about substance use that makes sense to them in their own context. Thirdly such links can support the work of parents by involving them in the schools programme and in policy development.

Also the role of peer-education is a success factor in the implementation of the programme. 'Drug talk' from teacher may be viewed with suspicion by students; from specially trained peers or older students it can have greater impact and credibility.

Dependent of the local needs, the school can be planned the substance use module. This module is a form of psycho-education. The focus initially is on the place of drugs in everyday life and their use in the treatment and prevention of illness. In addition alcohol, solvent and nicotine use are addressed specifically. The learning outcome of the first year are (1) have examined the place of medicines and drugs in human life; (2) be aware of how medicines and drugs can be misused; (3) have an understanding of the implications of alcohol use for personal health and social interaction; (4) have explored some of the reasons why people begin to smoke and finally (5) have examined ways of avoiding smoking SPHE programme.

Schools will need to give consideration to local needs when planning the second year of this module. Here, the effects of drugs are explored and the decision-making skills are applied to the specific issues of alcohol and cannabis in the life of young people. The learning outcomes of the second year are (1) have reviewed their understanding of the physical and psychological effects of drugs; (2) have an awareness of the personal and social implications of alcohol and cannabis use

The main focus of the third year of the module is the use of ecstasy and its consequences. Beside the topic of heroin will be also discussed. The main learning outcomes of the third year are (1) have an understanding of the personal and social dangers associated with the use of ecstasy; (2) have an understanding of the personal and social dangers of heroin, including addiction; and finally (3) be able to apply their increased awareness and understanding to decision-making in relation to substance use.

A core resource for teaching Substance Use Education is 'On My Own Two Feet'. It is described as 'Educational Resource Materials for Substance Abuse Prevention'. The pack contains a number of handbooks containing a variety of lessons, aimed at students of all abilities, addressing such issues as (1) Identity and Self Esteem; (2) Decision Making; (3)
Understanding Influences; (4) Feelings; (5) Assertive Communication; (6) Consequences (dealing specifically with a variety of substances and their effects on the body) and finally (7)
School Handbook (informing good practice for schools in addressing SPHE, including Substance Use Education).

Recommendations

1. Scientific literature as well as specific information concerning how the young drug users could be reached by early intervention is very limited. Moreover, when facilitating access, as for example via hotlines, evaluation shows that young drug users are not the majority of the callers.

2. Providing information within a general framework of 'youngster's matters' (music, sex, school…) and the possibility of an interactive dialogue through media (radio, T.V., special newspaper for young people, telematics, and so on) is also very attractive for the young drug users.

3. What is more attractive for this target group than the dissemination of information during recreational festivities (leaflets) on a pro-active manner or with others words using the technique of active outreach. It is important that the information is very neutral, not moralizing, without appreciation or judgment about consumption. The information should also not be orientated to stop consumption and to speak about treatment besides the usual network for treatment of drug users.

4. When the young person or his or her family wish to receive advice and suggestion from health professionals, they first go to the G.P., so that this one has to be supported by mental health specialists of the second line without referring the young person too early to a mental health specialist. For this reason, an online helpdesk for G.Ps is very helpful.

5. More over, it is fundamental that health professionals and educators trying to build a contact with young people by using motivational interviewing techniques.

6. Unfortunately, there are very few evaluations concerning the results following these original procedures.

7. Finally, realistic health policies need to consider the diversity of programmes more especially the community based programmes.

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Chapter 5 - Screening and assessment

Nesrin Dilbaz, Vincent Hendriks

Summary

Data from large-scale population surveys in various countries consistently indicate that life-time prevalence of substance use is much higher than last-year prevalence. Hence, many people who have used psychoactive substances at some point in their lives have stopped to do so at a later moment. In line with this finding, experimentation with psychoactive substances is common among adolescents in many countries and cultures, but the vast majority of youngsters do not develop a pattern of problematic substance use or dependence.

Nevertheless, prolonged use of psychoactive substances in large amounts or in high frequency – and for some substances (e.g. crack-cocaine) even in small quantities and at a low frequency – is likely to interfere with the social, educational, vocational and psychological demands of the adolescent's everyday life and increase the risk of developing a substance use disorder. This chapter focuses on the identification of (preliminary) signs of problematic substance use in adolescents – i.e. screening – and on a more comprehensive evaluation of the nature and severity of the substance use and related problems and identification of adolescents in need of treatment – i.e. assessment. As described earlier in this report, the focus is on adolescents and young adults between 14-25 years old. In writing this contribution, the Treatment Improvement Protocol – Series 31 (CSAT/SAMSHA, 1999a) served as an important guideline. Other important Treatment Protocols in writing this chapter included those of Series 9, 21, 24, 30, 32, 37, 41, and 42 (CSAT/SAMSHA 1994, 1995, 1997, 1998, 1999b, 2000, 2005a, 2005b).

1 Screening

1.1 The purpose of screening

1.1.1 The criterion for screening

The objective of screening is not to establish a comprehensive profile of the person's psychoactive substance use, psychosocial functioning and treatment needs, but rather to identify whether the person may have a significant substance use problem and whether there is a need for further evaluation. The question, then, is: what constitutes a 'significant substance use problem'?

Although it is widely recognised that problematic substance use is not an 'all-or-nothing' phenomenon (Edwards et al., 1981), most professionals and scientists in the addiction field agree that the criteria which are used to describe 'abuse' and 'dependence' in the diagnostic systems of the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV; American Psychiatric Association, 1994) and the International Classification of Diseases, tenth edition (ICD-10; World Health Organization, 1994) have sufficient validity to be used as the 'gold standard' for establishing the existence of problematic substance use at this point in time. The criteria for 'abuse' refer to the recurrent use of a psychoactive substance despite the risk of harmful or hazardous (social, physical) consequences. Those for 'dependence' refer to a compulsive pattern of seeking and using a substance, despite severe negative (social, occupational, physical, psychological) consequences. Hence, the substance use disorder description of the DSM-IV and ICD-10 will be considered as the criterion for screening purposes in this chapter.

In the past decade, there has been growing discussion about the applicability of the abuse and dependence criteria to adolescents, since adolescents are at a specific stage of their development. For example, some researchers have lowered the number of criteria necessary to meet an abuse or dependence diagnosis in adolescents (e.g. Dennis et al., 2002), while others have adopted alternative scoring rules (e.g. the Diagnostic and Statistical Manual for Primary Care; American Academy of Pediatrics, 1996). Nevertheless, most researchers still agree that the criteria for the substance use disorder diagnoses apply to both adults and adolescents, given that they generally show good inter-rater reliability and validity in both sub-groups (Winters et al., 1999; Young et al., 1995; Crowley et al., 2001).

1.1.2 Different levels of screening

In everyday practice – be it in the community or in a treatment centre – the duration of time available to identify an individual with a substance use disorder is often variable. In some contexts, this time may be limited to only a few minutes. In addition, the level of professional training and experience may differ substantially between treatment settings and between professionals. Furthermore, it should be stressed that screening and assessment in a treatment setting is only useful if there is a subsequent treatment offer which is directed towards the problem behaviours identified (either within the treatment setting or through referral). As a consequence, no single screening approach or instrument will meet the needs and opportunities of professionals in these greatly varying contexts.

Therefore – analogous to the approach followed by Health Canada (2002) in their guideline on best practice – screening methods and instruments in this chapter will be distinguished at two levels of effort, the first level requiring only little time and expertise, and the second level requiring somewhat more time and effort, but often yielding a broader picture (e.g. including mental health problems related to substance use), higher reliability, and the possibility to obtain information from both the adolescent and a parent, guardian or friends.

1.2 Target groups for screening

In general, screening efforts should be primarily targeted at segments of the adolescent population with an increased risk of developing a pattern of problematic alcohol or drug use. Results from epidemiological studies indicate that these segments typically include:

- drop-outs from school and vocational programmes; youngsters who are frequently absent from school or whose school performance substantially deteriorates. In some countries (e.g. The Netherlands), special reception-projects have been developed for youngsters with a high frequency of truancy;
- adolescents with – internalizing (e.g. depression) or externalizing (e.g. behavioural problems) – mental health problems, particularly those who show up at a mental health care or youth care institution;
- runaway youngsters, either in shelters or in special runaway projects;
- adolescents in the juvenile justice system; youngsters with delinquent behaviour and multiple arrests;
- youngsters who show up at an emergency care setting, with acute (physical or psychological) problems related to the use of alcohol or drugs (e.g. severe intoxication; results from fights under the influence of alcohol or drugs; suicide attempts);

- subgroups of youngsters who frequently visit bars, dances, discotheques, dance- or rave-parties, etc. Varying between countries, prevention and outreach workers regularly visit these places and make attempts to approach youngsters who show signs of severe intoxication or otherwise exhibit confused behaviour.
- youngsters with a family history of substance abuse or dependence. It has long been observed that "addiction tends to run in families". Indeed, recent research has demonstrated a strong genetic aetiology of substance abuse and dependence (Tsuang et al., 2001). Hence, professionals in the first and second line of the health care system should be alert to signs and symptoms of problematic substance use among adolescents with addiction in their families.

1.3 Professions involved in screening

In general, all organizations who are involved in working with adolescents at risk should have professionals with expertise in screening for substance use problems. These organizations include the health care system, youth care institutions, the juvenile justice system, schools, vocational programmes, and religious organizations. Professionals who should be able to screen and detect substance use problems include general practitioners, psychologists, paediatricians, psychiatrists, social workers, school/university counsellors and prevention and outreach workers.

1.4 Screening methods

1.4.1 General requirements

In general, screening instruments should be as brief as possible (5-20 minutes), should not produce a high proportion of false positive or false negative diagnoses and should have good reliability and validity. The instrument should be able to detect a broad range of psychoactive substances (i.e. alcohol, amphetamines, cannabis, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedative-hypnotics and anxiolytics). Preferably, various norm groups should be available for the screener, and the instrument should be applicable to a broad range of professionals without requiring an intensive training trajectory. In addition, the instrument should preferably be available to the organization without costs (public domain). As recommended by the Centre for Substance Abuse Treatment in the United States in its Treatment Improvement Protocol (CSAT/SAMSHA, 1999a), screening instruments (questionnaires, interviews) should have a structured or semi-structured format to minimize measurement error. In addition, the instruments pertaining to the adolescent should be assessed without the parent(s) being present. Lastly, it should be emphasized that the confidentiality of the individual's information is assured.

1.4.2 Self-report measures

Screening is most commonly conducted by means of a self-report instrument. This can be either a short questionnaire or a short interview. Questionnaires have the advantage of requiring only little time from a professional, but this sometimes goes at the expense of obtaining important additional information from observing the individual. In addition, the format of the questionnaire puts a high demand on the clarity of the questions (and on the understanding of the respondent), since there is no interviewer to provide additional explanations. Interviews have the advantage of the interaction with the individual, the possibility to clarify questions, and the provision of more detailed information, but they may not be feasible or appropriate if time and resources are

limited. As described before (see 1.1), the instruments in this chapter will be organized into two levels of effort.

The items in the questionnaire or interview should obviously be understandable and meaningful for adolescents in various age-groups. Since this report focuses on adolescents and young adults between 14-25 years old, the instruments should be applicable to this broad age-range and appropriate to the individual's level of development.

In general, self-report information can be reliable and valid, provided that the confidentiality of the information is assured, there are no negative consequences resulting from the information given, and that the questionnaire or interview is conducted in a sufficiently open atmosphere. However, underreporting of culturally sensitive behaviours (e.g. use of substances) may occur if an individual feels the need to 'downplay' his involvement in such behaviours, particularly in a context where reporting of substance use may bring about serious consequences (e.g. prior to going to court). Against this background, it is generally recommended to – if possible – obtain information about the use of substances from different sources to corroborate the self-reported information (Health Canada, 2002). Two approaches to obtain additional information are shortly discussed below.

1.4.3 Laboratory testing and psychophysiological test

With regard to the use of laboratory tests (urine, blood, saliva, hair) to screen for substance use disorders, studies have shown that such tests have only limited usefulness and sensitivity for this purpose. For example, the ability to detect a substance is strongly related to the time since the latest use of that substance by the person. In addition, laboratory tests provide only limited information about the quantity and frequency of substance use, and no information about the consequences of such use for the individual (Drake, Rosenberg & Mueser, 1996). Furthermore, the timing of the drug test in relation to that of the self-report instrument seems to be quite critical for the level of agreement between both sources of information. Hamid et al. (1999) found a much higher level of agreement if the urine sample was collected prior to the self-report measure.

Psychophysiological tests have been applied in the drug abuse field to study – for example – physiological cue reactivity (e.g. galvanic skin response, body temperature) to drug-related stimuli, or the extent to which cognitive processing of drug cues occurs selectively in drug dependent individuals (e.g. Franken et al., 2000a). As such, tests like the Emotional Stroop Task (Williams et al., 1996) are used in addiction research to measure the ability of drug-dependent subjects to shift their attention away from drug-related words (Franken e.a., 2000b). In these paradigms, attentional bias is regarded as a cognitive measure of psychophysiological cue reactivity or subjective cue reactivity (i.e. drug craving). For screening purposes in clinical settings, however, these tests have limited applicability, since they focus on one specific aspect of addictive behaviour (e.g. cue reactivity, craving), and require quite some time-investment from trained professionals to administer.

1.4.4 Collateral information

Collateral reports from parents or guardians, other family members, friends or past records are considered a useful adjunct to corroborate and expand the information obtained through the

adolescent himself. There are, however, indications that individuals close to the adolescent generally provide more valid information about the adolescents 'externalizing' problems (e.g. behavioural problems) than about his 'internalizing' problems (e.g. depressive mood) (see CSAT/SAMSHA, 1999a). In general, collecting collateral information from family or friends is only feasible in situations where there are no serious time constraints or limitations in resources.

1.5 Screening instruments

In order to come to a selection of screening instruments for the present chapter, several criteria were used. Most importantly, the instrument should (1) be short, (2) preferably cover both alcohol and drug use, (3) be widely known, (4) have good psychometric properties, particularly with regard to its sensitivity and specificity, (5) require relatively little training, and (6) preferably be available without costs (public domain). Analogous to the approach followed by Health Canada (2002), screening methods are recommended at two levels of effort.

1.5.1 Level 1 screening instruments

Level 1 screening methods involve very little time and effort (max. 5 minutes) and do not require special training or complex scoring procedures. At this level, the following instruments – all in the public domain – are recommended for use in adolescent and young adult populations.

AUDIT
The Alcohol Use Disorder Test (Babor et al., 1992) is a 10-item self-administered alcohol screening questionnaire, employing a 5-point Likert scale for each item. The items refer to the amount and frequency of drinking (3 items), alcohol dependence (3 items), and problems caused by alcohol (4 items). Although developed as a screener for adults, the AUDIT has been studied in several adolescent populations, and has been found to have good sensitivity[3] (82-88%) and specificity (78-81%) for detecting a DSM-IV alcohol use disorder in adolescents (Chung et al., 2000; Kelly et al., 2002, 2004; Knight et al., 2003). The AUDIT requires very limited training in administration procedures and scoring, and can be administered in approx. 2 minutes.

CRAFFT
The CRAFFT test (Knight et al., 2002, 2003) is a recently developed 6-item (yes/no) self-administered alcohol and drug screening test specifically designed for adolescents. In a population of adolescent clinic patients, the CRAFFT demonstrated good predictive accuracy for detecting any DSM-IV substance use disorder (abuse or dependence; alcohol or drugs) (sensitivity 80%; specificity 86%) and for detecting DSM-IV substance dependence (alcohol or drugs) (sensitivity 92%; specificity 80%) (Knight et al., 2002). The CRAFFT takes 1-2 minutes to administer, and can be used without training.

POSIT – Substance use/abuse scale
The Problem Oriented Screening Instrument for Teenagers substance use/abuse scale (Rahdert, 1991) is a 17-item subscale of the 139-item, self-administered, POSIT (see below). The POSIT is specially developed for use in adolescents, and its substance use/abuse scale demonstrated good

[3] Sensitivity: the ability to correctly detect a positive diagnosis. Low sensitivity implies a high number of false-negative diagnoses. Specificity: the ability to correctly detect a negative diagnosis. Low specificity implies a high number of false-positive diagnoses.

accuracy in detecting DSM-IV alcohol abuse or dependence (sensitivity 84%; specificity 89%) in this group (Knight et al., 2003), and in detecting DSM-III-R alcohol or drug use disorders in adolescents in clinical and correctional settings (sensitivity 95%; specificity 79%; Latimer et al., 1997). The POSIT substance use/abuse scale can be administered in approx. 3 minutes, and does not require special training or qualifications.

A number of other level 1 screening instruments were reviewed but these were not included in the above mentioned recommendations, because of various reasons. For example, the CAGE (Ewing, 1984) and CAGE-AID (Brown & Rounds, 1991) were excluded because these questionnaires showed insufficient detection accuracy in adolescent populations, whereas the SSI-SA (Winters & Zenilman, 1994), the TWEAK (Russel, 1994) and the CUDIT (Adamson et al., 2003) have not yet been sufficiently tested among adolescents.

1.5.2 Level 2 screening instruments

Level 2 screening methods require max. 25 minutes. At this level, four instruments are recommended for more comprehensive screening (for both substance abuse and mental health problems, or for mental health problems only) in adolescents and young adults, three of which are not in the public domain.

DUSI-A
The Drug Use Screening Inventory-Adolescents (Tarter, 1990) is a self-administered screening questionnaire specifically developed for use in adolescents. It consists of 159 yes/no items to assess the severity of alcohol and drug problems in 10 domains: (1) substance use, (2) psychiatric disorder, (3) behaviour problems, (4) school adjustment, (5) health status, (6) work adjustment, (7) peer relations, (8) social competency, (9) family adjustment, and (10) leisure/recreation. Among adolescents, the DUSI-A detected 81% of those with a DSM-III- psychoactive substance use disorder, and 95% of those without this disorder (Kirisci et al., 1995). The DUSI-A can be administered in approx. 20-25 minutes (either as a questionnaire or as an interview) and does not require special training. The instrument is copyright protected.

POSIT
The Problem Oriented Screening Instrument for Teenagers (Rahdert, 1991) is a 139-item self-administered questionnaire which screens for problems in areas that are very similar to those in the DUSI-A: (1) substance use, (2) physical health, (3) mental health, (4) family relations, (5) peer relations, (6) educational status, (7) vocational status, (8) social skills, (9) leisure/recreation, and (10) aggressive behaviour/delinquency. The predictive accuracy of the substance use/abuse subscale is reported above. The POSIT can be used both as a screener and as a monitoring instrument to measure change over time. For this latter purpose, seven of the 10 subscales of the POSIT are included in the follow-up version (117 items) of the instrument.

In addition, to obtain collateral report from the adolescent's parent(s), a special parent version has been developed (the Problem Oriented Screening Instrument for Parents; POSIP; Rahdert, 1991). This parent version includes five of the domains described above: (1) substance use, (2) mental health, (3) family relations, (4) peer relations, and (5) aggressive behaviour/delinquency. The POSIP takes 10-15 minutes to administer. Both the POSIT and POSIP are free of charge.

As with the level 1 instruments, various other level 2 instruments were reviewed but excluded from recommendation. For example, the adolescent version of the SASSI (Miller, 1985, 1999), was excluded because of inconsistent findings with regard to its predictive accuracy in adolescent populations (e.g. Myerholtz & Rosenberg, 1998; Sweet & Saules, 2003).

Best Practice Recommendation

- It is recommended that all adolescents entering mental health services or the juvenile justice system are screened for substance use disorders. Dependent on the type of setting and the available time and resources, Level 1 (max. 5 minutes) or Level 2 screeners (max. 25 minutes) should be used.

- Recommended Level 1 screeners include the AUDIT, CRAFFT, and POSIT-Substance abuse scale.

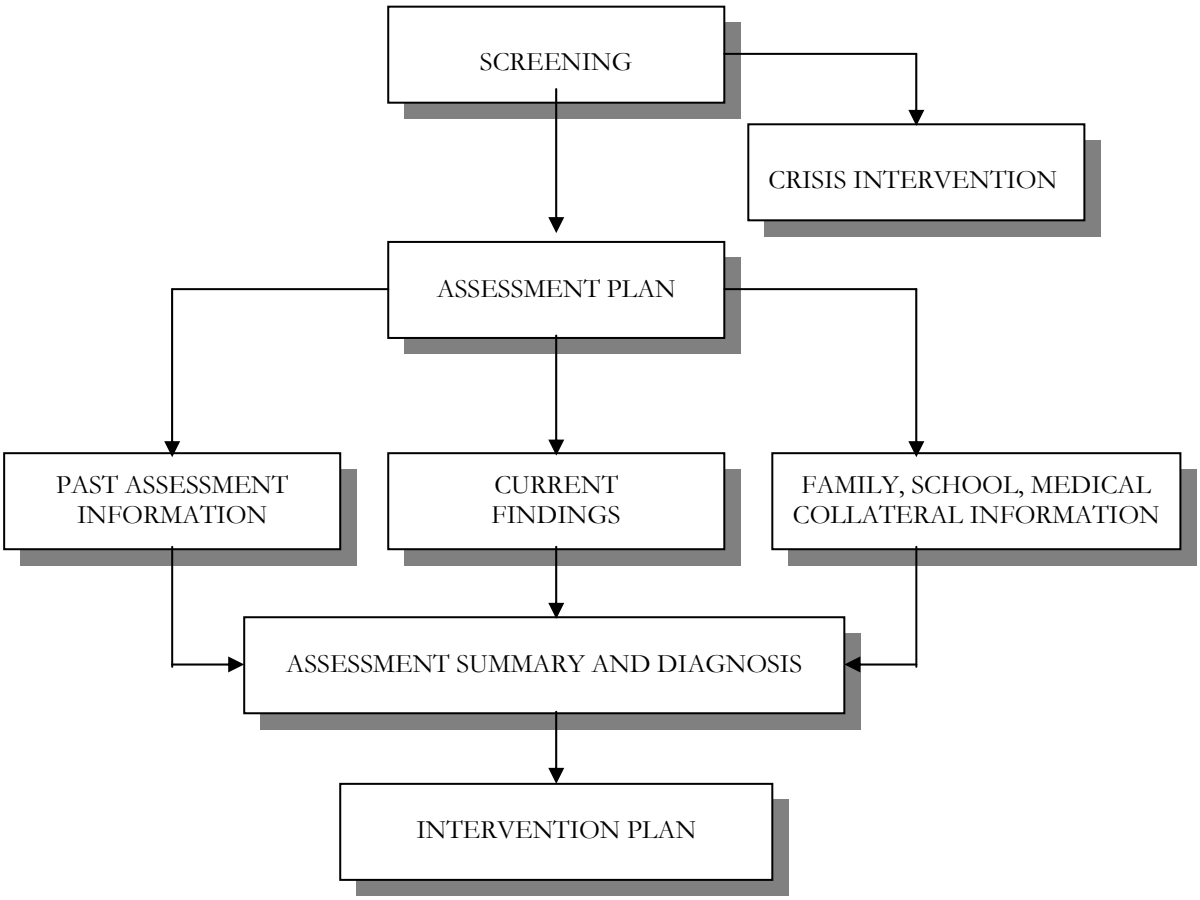
- Recommended Level 2 screeners include the DUSI-A and POSIT.

2 Definition

Screening is a process for evaluating the possible presence of a particular problem.
Assessment is a process for defining the nature of that problem and developing specific treatment recommendations for addressing the problem. Assessment is a comprehensive process that goes beyond medical issues to include a broad range of biopsychosocial components (figure 1).

Figure 1. Screening and Assessment

Source: Centre for Substance Abuse Treatment. Screening and Assessing Adolescents for Substance Use Disorders. Treatment Improvement Protocol (TIP) Series, Number 31. DHHS Pub. No. (SMA) 99-3282. Washington, DC: U.S. Government Printing Office, 1999.



Treatment planning responds to the specific problem identified during screening and comprehensive assessment. Screening can result in three scenarios: (1) there is no problem, (2) there might be problem, and (3) there is a substance abuse problem. If there is no problem, it is acceptable to note the suspicions and follow-up the adolescent periodically.

In cases in which there might be a problem it is important to obtain a second opinion even if the history and physical examination are negative. If the suspicion of drug abuse still remains it is important to follow-up over time and use confirmatory tests such as a weekly random supervised comprehensive urine drug screen. Regular contacts with a specialist are very important.

If the evaluation is positive or inconclusive, the experienced clinician should refer the patient to a mental health specialist in adolescent substance abuse for a comprehensive assessment and evaluation.

The comprehensive assessment not only confirms the presence of a problem but also illuminates the other problems connected with the adolescent's substance use disorder. A basic assessment consists of gathering key information and engaging in a process with the client that enables the counsellor to understand the client's readiness for change, problem areas, co-morbid psychiatric diagnosis(es), disabilities, and strengths. An assessment typically involves a clinical examination of the functioning and well-being of the client and includes a number of tests and written and oral exercises.

Intake information should consist of:

- background: family, trauma history, history of domestic violence (either as a batterer or as a battered person), marital status, legal involvement and financial situation, health, education, housing status, strengths and resources, and employment;
- substance use: age of first use, primary drugs used (including alcohol, patterns of drug use, and treatment episodes), and family history of substance use problems;
- mental health problems: family history of mental health problems, client history of mental health problems including diagnosis, hospitalization and other treatment, current symptoms and mental status, medications, and medication adherence.

2.1 Comprehensive assessment model

In the Treatment Improvement Protocol (CSAT/SAMSHA, 1999b), a multiple assessment model had been introduced. The evaluation should be conducted according to local and federal laws and guidelines about the confidentiality and child abuse. This model has three components with specific evaluation aims.

The content component is about the important clinical variables of adolescent substance use and related problems. School performance, peer and family relations, medical problems and crime are the problems that accompany to the substance use. The evaluation should cover four factors:

- substance use disorder severity
- predisposing and perpetuating risk factors
- coexisting psychiatric disorders
- response distortions such as faking food and faking bad tendencies

The method component is about the methods used to measure the content. Self-report questionnaires and interviews are the most useful methods while direct observation and laboratory testing can also be used.

In the sources component there are several information sources such as parents, teachers, peers, employers, adult friends, school officials, surrogate parent Advocates, social service workers, previous treatment providers and previous assessors and others for evaluating substance use disorder of the adolescent. Written reports and records from school, previous treatments and juvenile court records may also be used as information sources. Assessors should use multiple sources instead of using one source to eliminate or to minimize the risk of underestimation or overestimation of the problem (Weissman et al 1987). It is also important to incorporate the

information of different sources into a diagnostic picture to reach a relevant treatment planning and protocol for the adolescent.

The assessment of the adolescent who has been referred for a substance use disorder assessment must focus to rule out the possibility of a substance use disorder. The assessment must begin dealing with adolescent's denial, minimization and resistance.

Adolescent's family: The assessment should be performed with the traditionally defined family as well as with the family defined by adolescents and legal custodians defined by the court. The assessment of the entire family must be performed with a professional that is highly skilled and trained about family dynamics, strengths, weakness and social support systems. They must also be able to identify key family structures and interrelationship patterns. The family should also be questioned about the possible abuse.

2.3 The purposes of comprehensive assessment

The objective of a comprehensive assessment is:

- to identify the youth who need treatment accurately while documenting the details of the presence, nature and complexity of substance use reported in a screening;
- to evaluate if a substance use disorder exists including whether adolescent meets diagnostic criteria for abuse or dependence and the severity based on a formal criteria and to determine the specific treatment needs of the adolescent if substance abuse or dependence is confirmed;
- to learn more about the nature, correlates and consequences of substance using behaviour
- to identify the related problems such as problems in medical status, psychological status, social functioning, family relations, academical achievement, nutrition and delinquent behaviour;
- to examine the extent of the involvement of the youth's family to comprehensive assessment and possible interventions;
- to identify the specific strengths of the adolescent, family and other social supports such as coping skills of the youth that can be used in developing the treatment plan;
- to develop a written report that:
    - ✓ identifies and accurately diagnosis the severity of the use;
    - ✓ identifies factors that contribute to substance use disorder;
    - ✓ identifies a corrective treatment plan to address these problem areas;
    - ✓ details a plan to ensure that the treatment plan is implemented and monitored to its conclusion;
    - ✓ makes recommendations for referral to services.

2.4 Professions involved in assessment

The assessor should be a well trained professional such as psychiatrist, psychologist or mental health professional, school counsellor, social worker or substance abuse counsellor experienced with adolescent substance use issues. The assessor should have sufficient training in psychological assessment, use of standardized measures, developmental psychology and

substance use disorder. Many diagnostic interviews need to be administered by a licensed professional because of the complexity of behavioural and mental disorders and descriptive psychopathology.

The assessment should be conducted in an office or an other place where the adolescent can feel comfortable, private and secure. One individual must take the responsibility in the assessment procedure for gathering, summarizing and interpreting the assessment data. The assessor should be involved in the process from assessment to treatment and also assists the treatment planning process. The assessor should ensure that the adolescent gets all needed services.

2.5 The assessment procedure

The following domains should be assessed for a comprehensive assessment:

- self esteem, family, religiosity, other common supports, coping skills and motivation for treatment;
- history of use of substances including over-the –counter and prescription drugs (including Ritanil and Adderal), tobacco, inhalants, caffeine and alcohol;
- age of first use, frequency, length, pattern of use and mode of ingestion, signs and symptoms of substance abuse disorders, loss of control, social and legal issues and treatment history should also be added;
- medical health history and physical examination such as previous illnesses, infectious diseases, ulcers or other gastrointestinal symptoms, chronic fatigue, recurring fever or weight loss, recurrent nosebleeds, nutritional problems, medical trauma, pregnancies and sexually transmitted disease should be assessed. A full sexual history including sexual abuse and sexual orientation and HIV risk behaviour status such as injecting drugs and practicing unsafe sex should be evaluated;
- developmental issues including attention deficit disorders, learning problems, and influences of traumatic events such as physical or sexual abuse and other threats to safety such as a pressure from a gang members to participate the drug traffic;
- mental health history with a special focus on depression, suicidal ideation and attempts, attention deficit disorders, oppositional and conduct disorders and anxiety disorders; details about prior evaluation and treatment for mental health disorders, assessment of the disability status of the individual;
- family history of substance use, mental and physical health problems, previous or recent treatment, chronic illnesses, legal problems, child management and family's ethnic and socioeconomic background and degree of acculturation should also be assessed. Also the information about the housing conditions, the time that spent in shelters or streets, pattern of running away from home, history of child abuse or neglect, involvement with child welfare agency and/or foster care and the strengths of the family should also be noted;
- school history records and reports from school about the academic and behavioural performance and attendance problems;
- vocational history, any work paid or unpaid;
- peer relations, interpersonal skills, gang involvement;
- juvenile justice involvement and delinquency;
- social service agency programme involvement and residential treatment;

- leisure time activities such as sports, hobbies and interests.

2.6 Assessment methods

Self-administered questionnaires and (semi-) structured interviews are the two methods for assessing adolescent substance use disorder. Important factors for the selection of assessment instruments are (CSAT/SAMSHA, 1999a):

- high inter-rater and test-retest reliability;
- evidence of concurrent, construct and predictive validity;
- demonstrated ability to predict relevant criteria such as school performance, performance in treatment and substance use relapse;
- availability of normative data.

Reliability and validity are the most important criteria in the evaluation of any measurement instrument that will be used in assessment. Reliability is the relative freedom of a measure from a error. High consistency of item responses is an important reliability in a test. There are two types of consistency: internal and temporal (test-retest) consistency. Validity refers to the degree to which the instrument actually measures what it is intended to measure.

2.7 Comprehensive assessment instruments

2.7.1 Interviews and questionnaires for intake assessment and monitoring patient changes

Several semi-structured instruments have been developed specifically for adolescent populations with problematic substance use. Many of these instruments (e.g., T-ASI; ADAD) have been modeled after the Addiction Severity Index (ASI; McLellan et al., 1980; 1992). With the exception of the Personal Experience Inventory (PEI), each of these instruments is in the public domain.

TEEN-ASI
The Teen Addiction Severity Index (T-ASI; Kaminer et al., 1989; 1991; 1993) is a semi-structured interview developed for use when an adolescent is being admitted to care for substance use-related problems. T-ASI provides baseline information on the situation of adolescents prior to entering care for substance use disorders. Information is collected in the following eight areas: (1) demographic background, (2) chemical use, including consequences of use and treatment experiences, (3) school status, (4) employment/ support status, (5) family relationships, including physical abuse and sexual abuse, (6) peer/social relationships, (7) legal status, and (8) psychiatric status, including treatment experiences. At the end of each domain, the interviewer has to rate the client's problem severity. The T-ASI takes about 50 minutes to administer.

ADAD
The Adolescent Drug Abuse Diagnosis (ADAD; Friedman & Utada, 1989) is a 150-item, semi-structured interview that produces a comprehensive evaluation of the client and provides a 10-point severity rating for each of nine life problem areas: (1) medical, (2) school, (3) employment, (4) social relations, (5) family and background relationships, (6) psychological, (7) legal, (8) alcohol use and (9) drug use. Composite scores to measure client behavioural change in each problem area during and after treatment can be calculated.

From the 150 ADAD-items, 83 items are used for measuring pre- to post treatment client change. A special feature of the ADAD is three problem checklists in the medical, school, and family sections. These lists, which require only a 'yes' or 'no' response from the adolescent, enable the interviewer to gather a considerable amount of information from the youth in an easy and efficient manner.

Although the ADAD was originally developed for use with adolescents in substance use disorder treatment settings, it has proved useful as a general assessment tool for adolescents in school settings, youth social service agencies, mental health facilities, and facilities and programmes within the criminal justice system. It has been translated into various languages, including French, Swedish, and Greek. The administration time of the ADAD is approximately 50 minutes

PEI
The Personal Experience Inventory (PEI; Winters & Henly, 1989) is a self-report questionnaire designed to assess the extent of psychological and behavioural issues with alcohol and drug problems, to assess psychosocial risk factors believed to be associated with teenage substance involvement, to evaluate response bias or invalid responding, to screen for the presence of problems other than substance abuse, such as school problems, family problems, and psychiatric

disorders, and to aid in determining the appropriateness of inpatient or outpatient treatment (Guthmann & Brenna, 1990).

The PEI contains 276 items, in the following domains: (1) substance use problem severity (10 scales; 94 items), (2) substance use onset and frequency (19 items), (3) personal risk factors (8 scales; 79 items), (4) environmental risk factors (4 scales; 35 items), (5) problem screens for school, family and psychiatric disorders (6 screens; 31 items), and validity indices (5 scales; 70 items).

The PEI can be used in youngsters between 12-18 years old, and is useful in (treatment) settings in which a comprehensive substance abuse evaluation is required. The instrument has good reliability and evidence of construct and criterion-related validity across multi-ethnic samples (Winters et al., 1993, 1996). The PEI takes about 45-60 minutes to fill out.

GAIN
The Global Appraisal of Individual needs (GAIN; Dennis 1998; 2000; 2003) was developed to implement an integrated biopsychosocial model of treatment assessment, planning and outcome monitoring that can be used for evaluation, clinical practice and administrative purposes. The GAIN embeds questions for documenting substance use disorder, attention deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder, and pathological gambling; dimensional patient placement criteria for intoxication/ withdrawal, health distress, mental distress, and environment distress to guide movement among and between levels of care, treatment planning; reporting requirements related to the U.S. State Client Data System, and measures of a core set of clinical status and service utilization outcomes used in the Drug Outcome Monitoring Study. The content of the GAIN is divided into eight areas: (1) background and treatment arrangements, (2) substance use, (3) physical health, (4) risk behaviours, (5) mental health, (6) environment, (7) legal, and (8) vocational. In each area, the questions check for major problem areas and the recency of any problems. The items in these areas are combined into over 100 scales and subscales. The key indices of these (sub-) scales have shown good internal consistency (alpha's of most scales of 0.80 and above), good reliability (test-retest reliability for symptoms: r=0.7-0.8; for diagnoses: Kappa=0.5-0.7), and good validity (e.g. consistency with multi-method estimates).

2.7.2 Diagnostic interviews

Several diagnostic interviews have been developed to establish a DSM-IV diagnosis specifically in adolescent populations (including a substance use disorder diagnosis). Although quite a view instruments have been developed in this area ((see McClellan & Werry (2004): Diagnostic Interview for Children and Adolescents (DICA; Reich, 2000), Child and Adolescent Psychiatric Assessment (CAPA; Angold & Costello, 2000), Interview Schedule for Children and Adolescents (ISCA; Sherrill & Kovacs, 2000)), only the two instruments that are most commonly used in clinical practice and research are described in this section.

DISC-IV– Substance Use Disorder section
The National Institute of Mental Health Diagnostic Interview Schedule for Children (NIMH-DISC; Costello et al., 1982; Shaffer et al., 2000). The DISC is a structured interview designed to assess DSM axis-I disorders specifically in adolescents. The DISC-IV has been developed to cover both DSM-III-R, DSM-IV and ICD-10, for over thirty diagnoses. The interview is

organized into six diagnostic sections: Anxiety Disorders, Mood Disorders, Disruptive Disorders, Substance Use Disorders, Schizophrenia, and Miscellaneous Disorders (e.g. Eating disorders). Within each section, the diagnosis is assessed for presence within the previous year, and presence with the previous month. In adolescent outpatient psychiatric populations, the rest-retest reliability and the validity of the DISC-IV across diagnoses ranged from moderate to very good (Fisher et al., 1997; Shaffer et al., 2000). In a community population, the administration time for the total DISC-IV amounts to an average of 90-120 minutes

ADI

The Adolescent Diagnostic Interview (ADI; Winters & Henly, 1993; Winters et al., 1993; 1999) is a criterion-referenced structured interview designed to assess DSM-III-R and DSM-IV criteria for substance use disorders. In addition to a diagnostic classification, it provides information on the level of functioning in several domains, including peers, partner relationships, school behaviour and performances, home behaviour, and life stress events. The ADI also screens for several coexisting mental/behavioural disorders, and it screens for memory and orientation problems. The ADI has been investigated on its psychometric properties, including inter-rater and test-retest reliability (Kappa's ranging from 0.80-0.83 for dependence; observed agreement of 94%-99% for abuse), and concurrent and criterion validity (e.g., Bukstein & Winters, 2004; Winters e.a., 1999). In the United States, the ADI has been used in a broad field of research and has been recommended for the assessment of substance use disorders in adolescents by – among others – the National Institute on Alcohol Abuse and Alcoholism and the Centre for Substance Abuse Treatment (CSAT) of the U.S Department of Health and Human Services. The ADI takes approximately 50 minutes to administer.

Best Practic Recommendation

- It is recommended that all adolescents with a positive screen, who enter mental health services or the juvenile justice system, receive a comprehensive assessment to (1) assess the level of social and psychological functioning, (2) establish a diagnosis, and (3) develop a treatment plan.

- Recommended assessment instruments for intake and the monitoring of patient changes include the Teen-ASI, ADAD, PEI and GAIN.

- Recommended diagnostic interveiws include the DISC-IV and the ADI.

3 Screening and Assessment of Juveniles Juvenile Justice System

Most of the adolescents entering the juvenile justice system (JJS) have substance use disorders and/or physical or sexual abuse, psychological and emotional problems, family and school difficulties. Screening and assessment that are performed to juveniles to prevent their further involvement in the JJS should be repeated at different stages in the system (intake, preadjudication, and postadjudication) to detect changes over time in the pattern of substance use, related problem behaviours, and the need for services.

Juvenile Justice Protocols To Implement Screening and Assessment

- Initial screening should be done within 24 hours of entry.
- Full assessment should be done within several days of entry.
- Use of holding cells for screening and assessment is not recommended.
- Screening and assessment should follow many of the same guidelines used for youth in the community, such as
- The collection of data from different sources
- The careful selection of the instrument used
- The setting in which the interview is conducted is especially important in JJS settings and should be clearly noted in the written record.
- Juvenile justice staff should not be exclusively assigned to screening and assessment, as it encourages burnout.
- Protocols must be implemented to flag potential suicides.
- Protocols are needed to guide JJS staff in responding to critical problems that may arise during screening and assessment, such as
- Reported physical or sexual abuse
- Suicide threats
- Violent or aggressive behaviour
- HIV-related concerns
- Symptoms of withdrawal or acute intoxication
- Quality assurance monitoring of screening and assessment records should be completed at regular intervals.
- Staff must receive adequate training in key areas to handle adolescent-related situations
- Source: Centre for Substance Abuse Treatment. . Screening and Assessing Adolescents for Substance Use Disorders. Treatment Improvement Protocol (TIP) Series, Number 31. DHHS Pub. No. (SMA) 99-3282. Washington, DC: U.S. Government Printing Office, 1999.

All juveniles entering a juvenile justice facility should receive an initial screening, risk assessment, and follow-up assessment. Initial screening should be conducted within 24 hours of entry to the agency or facility. Screening and assessment activities may need to be completed over the course of several days for juveniles who are intoxicated, show symptoms of mental illness, are experiencing significant stress related to arrest or incarceration, or are not honestly disclosing information during an initial interview.

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Chapter 6 - Treatment and Treatment Planning

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Summary

This chapter describes treatment and the way it is planned. The first part concerns general issues on ways of assessing young people for particular treatment programmes, matching these treatments to the severity of addiction and to developmental needs of young people using drugs. The second part describes treatment settings and the treatment methods, shows the efficiency level of these treatment methods based on research data and touches upon the conditions necessary for potentially successful work with adolescents and young adults. The third part refers to general treatment components of treating adolescents and young people who use substances. The material presented in the chapter is based on the analysis of scientific research data as well as on the clinical experience of the chapter's authors.

Although the majority of drug users are youth there is no extensive literature on the applied prevention and treatment methods which would be adjusted to this particular age group. The approach to treatment of adolescents is dependent on the social attitudes towards drugs, perceived threats as well as philosophy which are characteristic of the given culture. In some countries (the Netherlands, France) drug use (especially experimental and occasional) is accepted as an element of youth lifestyle, while in the Scandinavian countries drug use in any form is socially unacceptable. Such attitude towards drugs is common also for central and eastern European countries. However, regardless of cultural differences and national drug policies, the research shows increasing trends in drug use among youngsters, the lowering age of drug initiation and increased number of adolescents referred to drug treatment services. Therefore, it is perfectly understandable that adolescent drug use even that "innocent" and controlled should be considered as risky behaviour which may have negative influence later on in adult life. More and more young people who enter treatment as a result of the use of psychoactive substances show a serious lack in development, distorted behaviour patterns and neurological damage. Many of them require treatment to prevent/reduce the consequences of drug use such as accidents, risky sexual behaviour, drug use, psychic disorders or crime. Research shows (Jessor, 1991) that experimental drug use, although it does not always directly lead to clinical problems and may even be considered as a favourable behaviour (helps to establish interpersonal contacts, strengthens one's position in the group) should be however understood as a risky and problematic behaviour. It has been shown that people who use drugs tend to undertake other risky behaviours. Although the number of youth who use drugs is increasing, it seems that relatively few seek professional help. ESPAD research (2001) shows that in the EU young people under 19 constituted less than 10 % of all people who referred to services. Such a result suggests that either young people do not yet need specialist treatment or young people in the EU do not have access to services designed for them and adjusted to their needs. Existing differences in approaches towards drug use in the EU (from liberal to total prohibition) in a way indicate also the differences in the need for specialist treatment. For instance, in Poland, where drug use is perceived as a symptom of both lack of social adjustment and other problems of adolescence, there is a great need of specialized services for adolescents. The data presented in EMCDDA report of 2003 confirm that only in some EU countries: Ireland, the Netherlands, Finland, Luxemburg, Denmark, Greece and Sweden, there are specialized services for adolescent drug users. This report, however, does not contain information about other countries other than the Polish experience in specialized help for drug-using children and adolescents. Poland has over

20-year-old comprehensive system of services addressing young people which incorporates different forms of help (from out-patient to residential therapeutic communities). Much of the experience and observation presented during the expert meetings (Expert Forum on Treatment" Pompidou Group) proves that secondary prevention is essential to drug use reduction. „Treating effectively young users and identifying young people at high risk, directing them to appropriate counselling or treating facilities, is a key factor for reducing both drug use and demand.' (E. Kafetzopoulos, OKANA, Greece).

Part I – General Issues

1 Tailoring treatment to adolescent

Use of certain treatment methods towards drug using children and youth must be adjusted to the specificity of the period of adolescence, degree of addiction and accompanying problems related to drug use. Effectiveness of any activity depends on the accuracy in identifying needs of the growing child related to development stage as well as needs related to problems resulting from drug use.

Some guidelines for the reform of children's mental health services, including drug-abuse facilities for adolescents, have advocated the development of service systems that are family-centered, community-based, child-focused, individualized, comprehensive, less restrictive, and accountable for client outcome and satisfaction.

Before the correct treatment can be offered, the relevant problems have to be identified. The extent of drug use and the associated problems need to be ascertained and recorded. In addition to these aspects of drug use, it is vital to understand the specific stages that an adolescent needs to progress through as he or she develops so that any delays or disturbances in this development can be tackled.

As far as adjustment of treatment methods to growing up youth who have drug problem is concerned, the most important issues are:

- knowing and understanding the things that an adolescent needs to do on their way of becoming an adult. The specific areas of interest here are: the formation of a personal and work-based identity; detachment from the parental home; the establishment of new social relationships; the development of an independent and flexible system of values; consolidation of sexual identity; coping with a changing body; and acceptance of an adult body image;
- understanding of relationship between drug use and individual development as well as identifying a role which is played by drug in the life of a young person;
- understanding of the meaning of change dynamics related to intensive intellectual, physical and social development and its influence on vulnerability of a young person to risky behaviours (curiosity, need of strong impressions, intensive experiences and emotions, etc.);
- identifying the degree of "involvement" with drugs and problems related to it (adolescent substance use occurs with varying degrees of severity);
- assessing the degree of readiness for change of unwanted behaviours and solving the existing problems (depending on the preferred philosophy of the therapist, for example

readiness to stop drug use when the goal is abstinence from drug use, or reduction of drug use when the goal is to minimize health damage). The majority of adolescents do not perceive drugs as something harmful. On the contrary, for many young people drugs are attractive and worth trying. That is why young people do not see the threat related to use of psychoactive substances. For a long time they have a feeling of absolute control over their drug use and weak motivation to change. Often it is the external pressure such as family, school, peers, accident or legal conflict that forces a youngster to seek professional help.

Professional services for adolescents, regardless of applied methods, should also consider:

- gender, ethnicity, cultural background, degree of disability and incapability to work or study;
- degree of retardation in mental, emotional and social development as well as related to it lack in school learning, ambitions, self-confidence and relations with other people;
- inclusion of adolescent's family in the process of problem solving and help in establishing favourable social environment (in some services participation of families is obligatory. Residential therapeutic communities in Poland consider it an obligatory element of the therapy);
- making the most appropriate services available;
- selection of appropriate motivational methods and techniques in case of a youth who, directly or indirectly, is forced to undergo treatment. As the pressure does not favour change and primarily leads to adolescent protest, it is necessary to apply strategies which allows increasing the chances of those less motivated.

Researches and treatment professionals have found it useful to characterize adolescent substance use behaviour on a continuum of severity that extends from the developmental variation of experimentation with substances through problem use, to disorders of abuse and dependence. To recognise to what a degree the adolescent is "involved" with drugs is essential to adjustment of treatment intervention. It is useful to consider a substance use continuum with six anchor points (TIP 32, SAMHSA):

1. Abstinence – young person does not have contact with drugs.
2. Use: minimal or experimental use with minimal consequences.
3. Abuse: regular use or abuse with several and more severe consequences.
4. Abuse/dependence: regular use over an extended period with continued severe consequences.
5. Recovery: return to abstinence, with a relapse phase in which some adolescents cycle through the stages again.
6. Secondary abstinence.

2 Qualification of adolescents for treatment programmes (Treatment Placement)

Decision on the appropriate treatment programme for a particular young person is one of the essential elements in work with drug using adolescents. The choosing of proper therapeutic method is one of the most important conditions for effective help.

The process of qualification of an adolescent for certain treatment programme requires information which can be collected through observation or interview from the interested party

(adolescent's self report), his or her parents and tutors as well as on the basis of available documents (health records, notes from specialists and results of specialist examination). The next step is to give the problem diagnosis. The assessment of the state and functioning of adolescent is made on the basis of the diagnostic criteria which serve for drawing a complete picture of psychological, social and environmental situation of an adolescent. It is very helpful to concentrate on the following spheres of adolescent activity: drug use (how much, how often, in what circumstances), drug use-related health damage, damage of learning capacity (weak ability to concentrate, memory, neurological deficits), distortion in the emotional sphere (inability to show and accept feelings, negative emotional states), damage in the social sphere (role playing, life tasks implementation, work, family, socializing, conflict with law) as well as impact of the environment (influence groups, living conditions, belonging to social groups). After careful assessment of the degree of the addiction, severity of symptoms, state of health and impact of problems on the psychic, mental and social spheres, involvement of family and opportunities in the environment in which he or she lives, an adolescent should be recommended for a certain treatment programme.

Regardless of the modality or the setting in which it takes place, treatment can be seen as a continuum starting with outreach, screening, and assessment to identify young people who are at risk or who are already engaging in substance use. It continues through the stages of counselling and treatment to continuing care and support to reinforce abstinence. Every form of therapeutic intervention: outpatient, residential or supported independent living (and aims solely at decreasing drug use-related health damage). All of these services require adjustment to the needs of adolescents. Proposed programmes in counselling facilities, as well as in detoxification units and rehabilitation residential centres should cater for young people who experiment with drugs and for those who use drugs more intensively. Use of the same methods for adolescents who have different problems and degree of involvement with drugs can be counter productive. In the majority of cases it is a consequence of lack of diversified approach and poor diagnosis. It is not enough that an adolescent takes drugs which make them eligible for all programmes, regardless of their needs, opportunities or motivation. Often, without personal responsibility young people refuse participation in programmes offered to them, very often without feeling personally responsible as they are given little choice (parents' pressure, legal writ etc.). Even if the external pressure may stimulate the participation in therapy, it does not mean that it causes permanent expected changes in behaviour. All programmes, regardless of their specialization, should therefore consider the needs of adolescents and the settings in which adolescents live as well as risk factors which are present in adolescents within their environments.

In the process of making decision and choosing treatment programme, it is very important for a young person to be fully informed about the programme, requirements and to be able to ask questions which allow them to understand benefits and difficulties related to the participation in the programme.

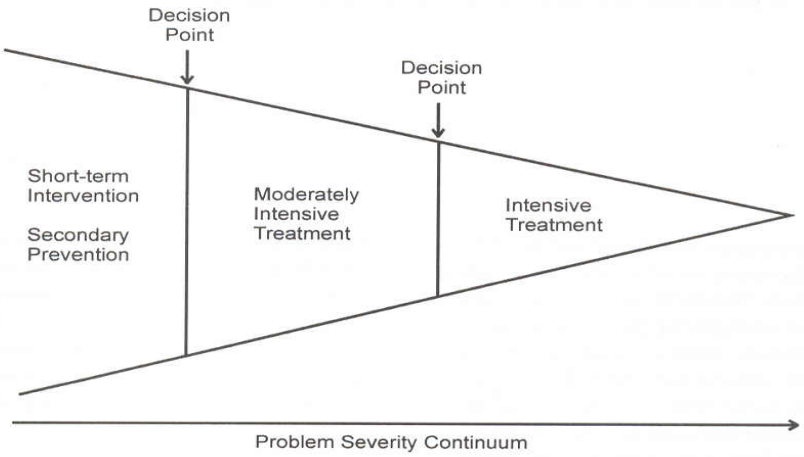
The role of such an advisor and consultant may be given to a GP or a family doctor as it is very likely that adolescents who have contact with drugs or their parents may first turn to their doctor for help. Therefore, a family doctor should be able to give the initial diagnosis (on the basis of information collected during an interview with the drug using person or their parents), performing a motivational discussion as well as recommending the person for particular specialist treatment programme.

The first treatment programme offered to an adolescent should be adjusted taking into consideration the most severe disorder and problems. If, during the programme participation, it turned out that the client's problems do not require such an intensive care, the client should be recommended for less intensive treatment. Of course, the decision about the change of the programme should be based on the assessment of the progress, diagnosis of the current state of the client and thorough assessment of their achievements as well as need for further treatment.

Assessment process is a continuous process which enables taking decisions at every moment of therapy underway. Every proposed change in therapy made by the therapist is not solely based on the outcomes and recommendations concerning client but should also be based on information about other programmes, their availability and level of intervention. Clients should have the opportunity to move back and forth across the level-of-care-continuum on the basis of their progress and changes in their environment. When assessment indicates need for a particular level of care that is not available, it is desirable to refer the adolescent to the next higher level of care, unless the assessment indicates that such a placement would be counterproductive. For example, if intensive outpatient treatment is indicated but unavailable, day treatment should be next recommendation, unless it is contraindicated. Naturally, a higher level of care may not be practical or available. In the process of service selection it is important to consider whether the service will provide for the client progress in different aspects (learning, intellectual, emotional), dynamics and consequence adjusted to individual capacity.

3 Treatment stages and the Problem Severity Continuum

Figure 1. Problem Severity Continuum



As the drug use in adolescence may delay development and make adult adjustment impossible (for example emotional relationships, establishing of family, professional career) and seriously influence young person's personality development (his or her feeling of identity, self-esteem, self-confidence, feeling of strength and competence) it is important to start therapeutic intervention as early as possible. There is a chance that in such a situation the regular development of an adolescent will not be damaged and the therapy will not require long-term intervention.

Part 2 – Treatment Settings and treatment methods

1 Entering treatment

In young people, the fact of entering treatment and actually starting treatment plays a particularly important role.

Youths and young adults generally assess the extent of psychoactive substance use differently than adults. This is why they do not usually consult drug specialists voluntarily; it is normally result of external pressure. It is particularly important to adopt the correct measures in good time at a stage at which experimental and recreational drug use is developing into critical abuse. If as many adolescents as possible are to receive specialist treatment promptly, it is necessary for contacts in the adolescents' environment to identify problematic behaviour at an early stage and to intervene effectively. Training teachers, family doctors, school psychologists and social workers in the techniques of motivational discussion has proven to be successful in this respect. **A graduated support system** of this type is integrated into the community, and interdisciplinary interventional models are used. At this phase of intervention, the emphasis is on motivating and counselling adolescents and young adults.

The threshold of accessing various support systems takes on additional importance in this context. The threshold of accessing counselling and treatment facilities needs to be low for adolescents. Services that can be used in an uncomplicated manner and without major administrative hurdles are suitable for young people and enable a larger number of adolescents to be helped.

2 Outpatient treatment services

Proposed treatment forms differ in level of intensity and duration. All working forms include day approach and do not consider night care. It is possible to distinguish the following therapy forms in outpatient settings (services):

- Assessment process – may be seen as a form of therapy employed at every stage of therapeutic process. Initial problem diagnosis (i.e. diagnosis recognizing the areas of adolescent's functioning in which there have arisen particular problems caused by the use of psychoactive substances) is given on the basis of the collected data. Basic ways for data collection include observation, interviews, documents analysis, results of specialist tests and examinations (including psychological ones). Diagnostic process includes individualized plan of therapy which is worked out together with the client.
- Brief motivational interviewing – takes less time than conventional therapeutic session and is aimed at collecting important information (brief screening), setting a preliminary plan for further intervention and psycho-educational elements
- Intervention in primary care settings – general practitioners and family doctors become more and more interested in applying brief intervention in situations when their patients are adolescents with health and drug related problems. In conducting such intervention, the health care staff should observe all regulations concerning work with adolescents as well as have clearly set agreements with services which specialize in help drug using adolescents.

- Counselling – this form of intervention can be conducted both in less and more intensive way, individually and in group - depending on the declared needs of clients and quality of services.
- Day treatment programmes are structured therapy programmes. It is the most intensive form of, so called, open therapy which can be proposed to adolescents who demonstrate high level of learning, emotional and social dysfunction but do not require treatment in residential facilities. Day care programmes may involve several hours per week as well as stay during 5 days a week. Different forms of individual, group and family therapy are applied. Normally these programmes also offer activities aimed at personal development and other forms of leisure and recreation.
- Chemical treatment – applied in cases of adolescents in a special situation e.g. young pregnant girl. The introduction of chemical treatment is, in such situations, a form of transitory therapy (time bridge) – time during which other forms of therapy, assistance or social help may be introduced.

3 Inpatient treatment services

Inpatient treatment is 24-hour intensive medical, psychiatric and psychological care implemented in residential settings.

- Detoxification is one of the residential forms of treatment. Normally it lasts from 6 to 14 days and includes 24-hour medical and psychological care. Detoxification can be implemented only by qualified staff and physicians. It is intended for adolescents who do not necessarily experience actual withdrawal symptoms but have personality disorder and accompanying mental problems. Upon the completion of detoxification further therapy is recommended.
- Residential treatment is a long-term treatment model which involves psycho-social rehabilitation and social re-integration. This form is intended for young people with multiple problems, especially those with coexisting developmental and substance use disorders. The duration of residential treatment can range from 30 days to as much as year and a half. Most residential programmes are based on therapeutic community approach.

4 Medically assisted treatment

Medically assisted treatment of adolescents and young adults with substance problems must take several aspects into account. In addition to treating the addiction, the therapist must also deal with individual development processes (individuation, socialization) which may have been disrupted by substance abuse, any co-existing medical conditions, and any psychiatric symptoms which are generally observed and which may or may not be specific to the addiction. Although the priority during adolescence and early adulthood is to achieve freedom from addiction, strategies for "harm reduction" (preventing infection, violence and traumatic experiences, dissocial behaviour, damage due to impure substances or overdoses) must not be forgotten. Pharmacotherapy with substitution, antidepressants, mood stabilizers and psychomotor stimulants may be helpful. Attention must be paid to possible interactions between consumed drugs and prescribed medications.

Very few systematic scientific studies have focused on the drug treatment of adolescents and young adults with substance-use problems. There is a clear need for medications which are effective in adult addicts to be studied also in young people.

Opioid substitution has repeatedly been shown to be effective in adults (methadone, buprenorphine, morphine, heroin-prescription). Opioid substitution is also indicated in the treatment of young opiate addicts. In this instance it is important to weigh the advantages and disadvantages of substitution therapy in each individual case. The same treatment rules apply as for adults, including urine testing, monitored and structured dispensing etc. It is particularly important to coordinate the various helpers involved in treatment (multidisciplinary). Here too, the goal is to support or restore the disrupted development processes, taking the young person's education, vocational training, leisure activities and social interactions into account. Collaboration with a doctor or psychiatrist who specializes in addiction problems or with specialized services is beneficial and to be recommended. While there is a minimal research on substitution in young people, there is a need for standardisation, with prescribing protocols, clarity in the goals of treatment and integral care planning which includes questions of settings for treatment

There are no specific and controlled studies of the **treatment of intoxication and withdrawal** symptoms in adolescents and young adults. The symptoms that are observed are very similar to those seen in adults. Adolescents and young adults respond to the same medications as adults. Future studies must seek to optimize the drug therapy of intoxication and withdrawal symptoms.

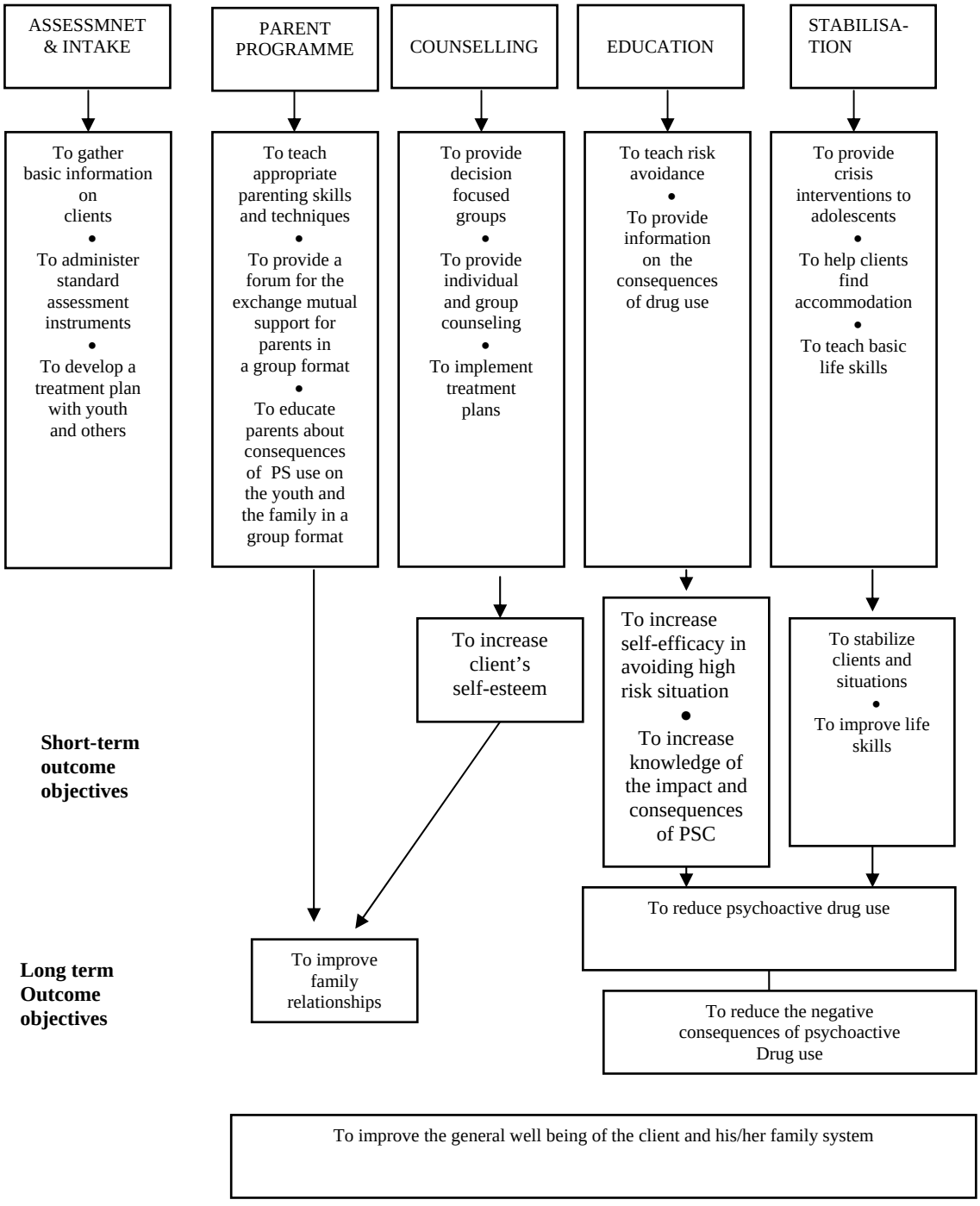
In adolescents and young adults, too, addiction disorders are often associated with **co-morbidities** such as depressive disorders, bipolar disorder, anxiety disorder, organic mental disorder, schizophrenia, attention deficit/hyperactivity disorder (ADHD), conduct disorder and antisocial personality disorder, borderline and narcissistic personality disorders, and eating disorders. This combination of co-morbid disorders makes diagnosis and treatment difficult. Treating the addiction and the co-morbidities in parallel has proven to be effective in adults. Pronounced psychiatric disorders cannot generally be treated with psychological and educational methods alone, either in adults or in young people. Medically assisted treatment (pharmacotherapy) is therefore required in many cases. Specific therapy for mental disorders in young people should be determined by the guidelines for diagnosis and therapy issued by the adolescent psychiatry associations. However, medically assisted treatment of psychiatric disorders in young people is the focus of controversial discussion, and this discussion is not always free of ideology. Here too, the advantages of using drugs must be weighed against the disadvantages. It is important to combine drug therapy with behavioural therapy, family therapy and educational components. It goes without saying that the medical, therapeutic and teaching professions must collaborate closely in such cases.

We frequently see **a variety of non-specific mental problems** (restlessness, labile mood, anxiety, sleep disorders, depressive mood etc.) in people with substance-related problems. This is another area in which there are no scientific studies which would permit evidence-based treatment of adolescents and young adults. Doctors and therapists must therefore combine appropriate treatments while respecting medical and ethical criteria. In many cases, drug therapy is the only way to provide relief for adolescents and young adults from their oppressive and debilitating mental symptoms. In this instance, symptomatic drug therapy is a necessary part of the treatment of addiction.

5 Continuing care services

The period following the completion of any given treatment programme is the period of high relapse risk. That is why all treatment programmes should consider continuity of care. Programme of post-treatment care may be conducted in out-patient settings (peer support groups, personal development groups, relapse prevention groups) and residential settings (hostels, half-way houses, independent living houses etc.). Within the post treatment programmes, it is recommended to conduct AA, NA groups, active involvement in community living, professional and personal development. One of the therapy forms for graduates of the essential programme are aftercare sessions (so-called "Booster sessions").

What follows is „Logic model for hypothetical youth service programme" by World Health Organization (WHO) published as a document containing collective views of an international group of experts – WHO, UNDCP and EMCDDA.


ASSESSMNET & INTAKE
PARENT PROGRAMME
COUNSELLING
EDUCATION
STABILISA-TION
To gather basic information on clients • To administer standard assessment instruments • To develop a treatment plan with youth and others
To teach appropriate parenting skills and techniques • To provide a forum for the exchange mutual support for parents in a group format • To educate parents about consequences of PS use on the youth and the family in a group format
To provide decision focused groups • To provide individual and group counseling • To implement treatment plans
To teach risk avoidance • To provide information on the consequences of drug use
To provide crisis interventions to adolescents • To help clients find accommodation • To teach basic life skills
To increase client's self-esteem
To increase self-efficacy in avoiding high risk situation • To increase knowledge of the impact and consequences of PSC
To stabilize clients and situations • To improve life skills
Short-term outcome objectives
To reduce psychoactive drug use
To improve family relationships
Long term Outcome objectives
To reduce the negative consequences of psychoactive Drug use
To improve the general well being of the client and his/her family system

6 Treatment methods (treatment interventions)

All presented treatment programmes use different methods which reflect differences in theoretical background and approach. This part of the chapter will describe the effectiveness of treatment methods that have been evaluated in systematic reviews of good quality controlled studies. The majority of the relevant research has been conducted in USA. In Europe, not as much research has been conducted, and existing ones do not involve the evaluation of methods applied in the eastern part of Europe.

The following are methods which are most frequently applied in therapeutic work with young people, and which have been object of evaluation.

6.1 Behavioural therapy

Behavioural therapy is based on the assumption that unwanted behaviours can be changed through clear demonstration of desired behaviour and consequentially rewarding any step towards the positive change. Therapeutic activities include fulfilling specific assignments, rehearsing desired behaviours, and recording and reviewing progress, with praise and privileges given for achieving assigned goals. The major foci in this particular intervention are stimulus control, urge control and social control. Therapy is delivered on a one-to-one basis by a therapist. Research studies have showed this therapy helps adolescents become drug free, improve their relationship with families, school attendance and emotional state (NIDA 1999).

6.2 Individual and group counselling

Counselling is extremely varied. It encourages the expression of feelings, the initiation of comments, reactions to comments, self-described drug use, discussion of drug use experiences, praise, and abstinence desires (Azrin et al. 1994). It may be delivered on a one-to-one basis or in groups in sessions. The therapist usually assesses the client's situation, tries to establish therapeutic relationship based on trust and introduces different opportunities for solving existing problems (what can be done, how, what can be the consequences, etc.). Therapy process is mainly based on identifying the spheres of dysfunctional behaviour, the potential of the client and proposing certain therapy forms.

Cognitive Behavioural Therapy (CBT)

CBT has been shown to be effective with many different substances, but has not been specifically evaluated in working with adolescents, (Carroll, 2005).

6.3 Brief motivational interviewing

Motivational interviewing is a directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence (Rollnick and Miller 1995). Compared with nondirective counselling, it is more focused and goal-directed. The examination and resolution of ambivalence is its central purpose, and the counsellor is intentionally directive in pursuing this goal. Brief motivational interviewing takes less time than conventional counselling session and is aimed at collecting important information (brief screening), setting a preliminary plan for further intervention and psycho-educational elements. This treatment form

derives from the motivational enhancement theory (Rollnick and Miller 1991, Miller 1996) and is a good instrument when working with adolescents who experiment with drugs (and are positioned in the low to middle range of the severity continuum). It allows adolescents to make independent decisions regarding further change and gives the feeling of responsibility and partnership in therapeutic relation. Educational elements introduced by means of short interactive workshops make this form of intervention more attractive. In many EU countries the method of brief intervention is used also in work with detained adolescents who have problems with drugs (for example, programme FreD in Germany).

6.4 Family therapy and other family interventions

There are many treatment interventions targeting families of young people. Both classic approach to family therapy (e.g. Systemic Family Therapy) and different forms of family intervention are applied including behavioural. All activities targeting families seek to involve relevent family members. Normally, these are structured forms of therapy concentrating on improvement of relationship between family members, to come up with the strategy of mutual help and coping with problems related to drug use by a family member. In family therapy, different approaches and trends are used ranging from behavioural to integrated methods. Often, family intervention methods are used, such as psycho-education, counselling, parenting groups, etc.

6.5 Minnesota 12 step programmes

Minnesota 12-step interventions are described by Williams and Chang (2000) as "a short 4-6 week hospital inpatient programmes typically offering a comprehensive range of treatment consisting of individual counselling, group therapy, medication for co-morbid conditions, family therapy, schooling and recreational programming. It often has an Alcoholic Anonymous/Narcotics Anonymous 12-step orientation and is followed-up with out-patient treatment" (Williams and Chang 2000). Chemical dependency is treated as a disease and abstinence is advocated (Winters et al. 2000). Treatment components include group therapy, individual counselling, family therapy, lectures, reading and writing assignments, schooling and occupational and recreational therapy. It focused on five elements of recovery 1) admitting the problem, 2) believing in hope for change, 3) learning from others, 4) taking stock of life, 5) discussing problems with peers. Families were encouraged to attend. A six-month programme was advocated with meetings 2/3 times per week, Twelve Step Facilities by treatment professionals has also been shown to be effective, (Carroll et al, 1998).

6.6 Therapeutic community and residential care

This has been described as a specialist treatment facility consisting of between 6months to 2 years stay (Williams and Chang 2000). These interventions tend to be highly regimented residential settings with treatment facilitated by paraprofessionals and often run by residents (Freeborn et al. 1995). Older traditional therapeutic communities for young people are rare Some offer day programmes where recovering patients live at home with their parents (Weir 1998; Freeborn et al. 1995).The new approaches to TC for adolescents are based on assumption that a person can change. These programmes use the group dynamics in order to correct personal experience, introduce individual approach to client, cooperation with families, schooling and occupational and recreational therapy, problem solving, activities which foster personal development.(US

National Bureau for Narcotics., 2003) Therapeutic communities can also offer assistance in enhancing coping skills, refusal skills, problem solving, personal responsibility and social network development, and many offer counselling (Weir 1998; White and Pitts 1997). Community based group-homes for offenders are also included in this category (Weir 1998).

6.7 General drug treatment facilities

Some authors refer to general drug treatment facilities (Maisto et al. 2001) or out patient facilities (Williams and Chang 2000), but offer little else by way of description. Maisto et al. (2001) suggest that this form of treatment should improve coping skills, and decrease stress. In their study, participants were recruited from psychiatric hospitals, a free standing chemical dependence programme, and an outpatient substance abuse programme. Williams and Chang (2000) describe the outpatient programmes as consisting of counselling, and occasionally family therapy. Treatment tends to be longer in duration (1-2 sessions per week), but may vary from one session to 6 months.

6.9 Methadone substitution programmes

Methadone substitution for opiate users is rare in young people under the age of 20, since in many countries this is the low age limit to enter a methadone programme. Hopfer et al. (2002) have presented some descriptive data for opiate adolescent users in methadone treatment, but their literature survey did not find any controlled studies on that treatment. According to their evidence, methadone maintenance has a poorer outcome compared to therapeutic communities, when abstinence is the goal, but has a very high retention rate, (Crome et al, 1998).

For the older range of this group of patients, e.g. up to 25 years old, then substitute therapy have been evaluated and found to be effective, (Ball & Ross, 1991; Farrell, M et al 1994).

7 The effectiveness of treatment and care services for drug using young people

Not all treatment methods applied to young people are equally effective. Research on effectiveness of the methods shows their roles in the following fields:

- reducing drug use among drug users,
- reducing the physical harms associated with drug use,
- improving the psychological well being of young drug users,
- improving the family and social relations of young drug users,
- Encouraging the up-take of other health and social services.

7.1 Effectiveness of treatment methods in reducing drug use among young drug users

There is fairly strong evidence that behaviour therapy, cognitive behaviour therapy, family therapy, motivational interviewing, 12-step Minnesota programmes and culturally sensitive counselling are highly effective and successful in reducing drug use (Azrin et al. 1994, Williams and Chang 2000, Stanton and Shadish 1997, Winters et al. 2000; Carroll, 2005). General drug treatment programmes, therapeutic community and residential care, methadone substitution for

opiate adolescent users and school based programmes that use life skills development and are targeted at high risk groups are also effective, (White and Pitts 1997, Maisto et al. 2001, Hopfer et al. 2002). Counselling seems to be less effective than the other mentioned interventions. A study reported by Williams and Chang (2000) demonstrates that 73% of those exposed to behaviour therapy achieve abstinence at discharge compared with 9% receiving counselling. The integration of interventions is a common practice but is not adequately investigated. The integrated family and cognitive-behavioural therapy is also more effective in reducing substance use compared with a psychoeducation curriculum (Latimer et al. 2003).

Purely education programmes are generally ineffective in reducing drug use. These include family education (Williams and Chang 2000), HIV/AIDS discussion groups (Magura et al. 1994), education based school programmes (Nicholas and Broadstock 1999) and general multifaceted school based programmes that include drama, class support and drug awareness classes for parents (Stead et al. 2001).

There are also interventions that may be harmful. Counter to the findings of other studies cited above there was an increase in drug use (cannabis) among those exposed to a life skills programme and a teacher based support programme in the USA, particularly among boys (Lister-Sharp et al. 1999; Nicholas and Broadstock 1999). This was thought to be related to the boys' experience of drug use or social support for drug use from friends or family.

7.2 Effectiveness of treatment methods in improving the psychological well being of young drug users.

There is fairly strong evidence that family therapy is effective in reducing psychological problems of young drug users (Williams and Chang 2000). Other intervention such as behaviour therapy, general drug treatment services, and therapeutic community settings offering coping and skills development although successful have a weaker effect in reducing psychological problems of youth (Williams and Chang 2000, Maisto et al. 2001, Harrington et al. 1998, White and Pitts 1997). School-based interventions are also weakly effective in improving psychological wellbeing. These include joint school and community skill development programmes (Nicholas and Broadstock 1999); teen-leader compared with teacher led resistance interventions; and self-efficacy and life skills programmes. (Lister-Sharp et al. 1999; Botvin et al. 1997; White and Pitts 1997).

7.3 Effectiveness of treatment methods in improving the family and social relations of young drug users.

Family therapy is also effective in reducing family and social problems. Co-joint family therapy is equally effective as one-to-one family therapy in improving family functioning (Williams and Chang 2000). There is fairly strong evidence that residential care reduces school disturbance and anti-social behaviour compared with probation (Williams and Chang 2000). There is also evidence that non-hospital day programmes reduce arrests and violence compared with community integration interventions (Williams and Chang 2000).

There are a number of interventions that demonstrate a weaker effect on family and social relations. Behaviour therapy has a weak effect on improving schoolwork, school attendance, and family relations (Williams and Chang 2000; Azrin et al. 1994). Family therapy has a weak effect in

reducing drug arrests and improving school grades (Stanton and Shadish 1997). There is weak evidence that community-based psycho-education improves school grades and decreases absenteeism (Weir 1998). There is also weak evidence that school interventions improve family and social relations. School based counselling, mentoring and academic support can increase school involvement (Nicholas and Broadstock 1999). Joint school and community skills intervention is successful in reducing delinquency among young people at risk of drug use (Nicholas and Broadstock 1999). Community based psycho-education improves school grades and decreases absenteeism (Weir 1998). School life skills interventions can improve interpersonal and communication skills (Lister-Sharp et al. 1999; White and Pitts 1997). School drug resistance skills improve general social skills (Lister-Sharp et al. 1999).

The most frequently used therapy methods conducted within outpatient treatment programmes for adolescents are the behavioural therapy, different form of group therapy (and first of all early intervention group) and multidimensional family therapy (MDFT), which have been tested for efficacy through research supported by the National Institute on Drug Abuse (NIDA, 1999) Also the multisystemic therapy (MST) run in natural environment has proved to be a very useful treatment programme for adolescents. Therapeutic community programmes, 12 steps programmes, and family therapy are also commonly used.

8 Examples

- Multidimensional Family Therapy (MDFT) – is an outpatient family- based drug abuse treatment for teenagers. Adolescent drug use is viewed as a network of influences (that is individual, family, peer, community). MDFT suggests that reducing unwanted behaviour and increasing desirable behaviour occur in multiple ways in different settings. Treatment includes individual and family sessions run in the clinic, home, school, etc. "Individual therapy includes work on developing decision-making, negotiation, and problem solving skills. Adolescents acquire skills in communicating their thoughts and feelings to deal with life stressors, and vocational skills in a better way. Parallel sessions are held with family members. Parents examine their particular parenting style, learning to distinguish influence from control and to have a positive and developmentally appropriate influence on their child." (NIDA, 1999, p.41)
- Multisystemic Therapy (MST) – " addresses the factors associated with serious antisocial behaviour in children and adolescent who abuse drugs. These factors include characteristics of the adolescent (for example, favourable attitudes toward drug use), the family (poor discipline, family conflict, parental drug abuse), peers (positive attitudes toward drug use), school (dropout, poor performance) and neighborhood (criminal subculture). By participating in intensive treatment in natural environments (home, schools and neighborhood settings) most youth and families complete a full course of treatment. MST significantly reduces adolescent drug use during treatment and for at least 6 months after treatment. Reduced numbers of incarcerations and out-of-home placements of juveniles offset the cost of providing this intensive service." (NIDA, 1999, p. 41-42)
- Group therapy is a form of work with adolescents with medium involvement in drug use, well motivated to change their attitudes and behaviour affected by drug use. Normally, it is a type of client who due to drug use found him or herself in crisis (expulsion from school, conflict with law, lost social status, lost family etc.), is characterized by a high level of consciousness of troublesome situation and whose social environment (including family)

is normal and supportive.. For example, the practice of dynamic and integrating therapeutic group for adolescent drug users (not addicted) is common in counselling and care centers for youth in Poland. As is the practice of such groups for those with accompanying disorders (ADHD, bulimia, prescription drug use and personality disorder borderline).

- 12 - Steps Based Programmes The programmes have been modified to fit adolescent specificity so that they are understood and implemented more easily at every stage. In the majority of programmes it is the first five steps that take the longest time to implement. Attached is the example how these first five steps are modified in order to meet the needs of adolescents in a better way.
    - ✓ Step 1: „We admitted we were powerless over alcohol-that our lives had become unmanageable". With adolescents, the primary goal of this step is to assist them in reviewing their substance use history and to have them associate it with harmful consequences.
    - ✓ Step 2: „ We come to believe that a Power greater than ourselves could restore us to sanity". To convey this message, allow new clients to interact with those who have been successful in treatment and are leaving the programme. Providers must help adolescents to understand, that Step 2 refers to obtaining help to stop drug seeking and drug use behaviours.
    - ✓ Step 3: „We made a decision to turn our will and our lives over to the care of God as we understood Him". This step can be simplified by saying „Try making decisions in a different way; take others' suggestions; permit others to help you. Using the phrase „helping Power" instead of „Higher Power" can benefit some.
    - ✓ Step 4: „We made a searching and fearless moral inventory of ourselves"; Step 5 „We admitted to God, to ourselves, and to another human being the exact nature of our wrongs". Step 4 and 5 provide an opportunity to be accepted by other people in spite of one's past behaviours and to take a „personal inventory" of those past behaviours

- Therapeutic community - is the method of work with drug dependent people who require residential care due to their situation and state of health. Because of its philosophy, structure and functions, therapeutic community can be regarded as one of the most appropriate methods of work with adolescents who use drugs (regardless of intensity of their drug use). TC is a form of structured therapy which has clearly set rules and regulations. Traditionally, all work related to housekeeping and often farming or gardening is done by programme clients themselves. Apart from that, clients are also the ones who manage the house and are responsible for everything what happens in the house. Through role playing they learn personal and social responsibility. The group which lives together is unceasing source of information for other community members. This specific social micro cosmos give a valuable opportunity for mutual learning, personal development, adoption of social norms and most of all – building personal identity and self-acceptance. TC philosophy is based on a belief that every person is capable of changing themselves and this forms settings which are favourable and attractive for minors. Modifications that are generally made in the TC model for treatment of adolescents can be summarized as follows:
    - ✓ The duration of stay is shorter than for adults
    - ✓ Treatment stages reflect progress along behavioural, emotional, and developmental dimensions

- ✓ Adolescent programmes are generally less confrontational than adult-oriented programme
- ✓ Adolescent have less say in the management of the programme
- ✓ Staff members provide more supervision and evaluation than they do in adult programmes
- ✓ Learning disabilities and related disorders, such as attention deficit/hyperactivity disorders (AD/HD) must be assessed
- ✓ There is less emphasis on work and more emphasis on education, including actual schoolwork, in the adolescent programme and ideally should be staged beginning with orientation and education, than moving to support groups, therapy groups and therapy with the adolescents.

In a publication "Promising Practices in Drug Treatment: Findings from Europe" published in 2003 by US Department of State, Bureau for International Narcotics and Law Enforcement Affairs there are presentations of externally assessed methods of work with the youth in therapeutic communities (Poland, Slovenia, Italy and Spain) which were deemed successful and worth implementing in other European countries. Among the factors contributing to the success of MONAR TC (Poland) for adolescent which were mentioned in the book are: individualized treatment planning, effective use of group dynamics, structured treatment, focus on adolescent developmental processes, democracy in TC operations and clinical decision-making, combined prevention and treatment components, integrating the family into the treatment process and hostel as a transition to the community.

Family therapy is commonly believed to be an obligatory element of treatment of drug using adolescents. Therapy of parents requires professional personnel. The goal of family therapy is to improve relationships within the family and communication between family members as well as conflict solving abilities. Family treatment allows parents to obtain skills needed in contact with their child, motivates to support their child who has a drug problem, and encourages them to spend more time with their child in an active way.

9 Effectiveness of treatment methods in encouraging the up-take of other health and social services

There is weak evidence that those attending a specialist drug treatment service that offers counselling and residential care use more medical services during a 1.5 year follow-up compared with the comparison group (Freeborn, et al. 1995). Medical services contacted include those for chronic disease, microorganism disease, undiagnosed disease, pregnancy complications and trauma. The intervention group also made more use of services that focus on emotional problems and acute problems. There is also evidence that parents increased their contact with medical services. There were no differences between the intervention and comparison groups in the number of hospitalisations. The authors conclude that service use may be determined by familiarity with health services and past positive experience of health services.

There is weak evidence that multi-systematic therapy (MST) reduces the length of stay in prison or residential treatment, but only in 8% of sample. The costs of MST are offset by those associated with lower incarceration. There was no effect on the use of medical services, including mental health services, which were used by approximately 33% of the treatment and control groups (Schoenwald et al. 1996).

10 Conclusions

The majority of the research cited above has been conducted in USA. There are, however, many ideological, moral or even cultural differences and constrains between the American and the European view of addiction, which may have a different compact on treatment settings and practices. It is difficult, therefore, to transfer the American experience to European countries without concern.

Research also shows that there are no methods which are similarly effective in all above mentioned areas. The majority of collected data proves effectiveness of behavioural and behavioural-cognitive treatment, brief motivational interventions and family therapy. Almost all methods out of the listed areas turned out to be effective but more or less successful. Undoubtedly effective and successful are those activities towards families of drug users. Lower effectiveness, particularly in improving the psychological well being of young drug users, as research data demonstrates, is shown by residential programmes – therapeutic community and other forms of in-patient drug treatment.

Research results, however, are not complete – many methods, e.g. behavioural therapy, have been the subject of evaluation many times, whereas other methods have been evaluated considerably rarer. Also, there is no yet published data from European countries, especially new members of the European Union, which have long experience in treatment, in a variety of methods and settings.

Therefore, as the evidence concerning effectiveness of the specific methods seems to be incomplete, for many practitioners the clinical experience plays a crucial role in therapeutic activities and often supplements not solidly established and widely accepted evidence-based practices. From the point of view of adolescents a more "comprehensive" approach in planning, implementing and running treatment services and agencies, which takes into account the personal characteristics of young clients with problematic drug use, as well as the cultural, political, economical and community context in which the agency works.

In everyday practice, all over the world, there are indeed choices that are based on values or practical experience, which have not yet been described and acknowledged. Where these choices do not contradict well established evidence-based practice, there is a need of good quality research evaluating factors contributing to the success of specific interventions. Using experienced and well trained staff with low turn over (Morehouse and Tobler 2000, Weir 1998, Tobler 1992) and multi-agency working (Nicholas and Broadstock 1999) are indeed examples of factors that contribute to the success of interventions regardless the treatment method used. Comprehensive interventions i.e. not just concentrating on drug use but tackling wider cultural issues are also effective regardless the specific method used (Maisto et al. 2001, Williams and Chang 2000, Lister-Sharp et al. 1999, Nicholas and Broadstock 1999, White and Pitts 1997, Tobler 1992) as well as carefully planned interventions with clear aims, objectives and target audience (Nicholas and Broadstock 1999).

11 Treatment Programme Components

Regardless of applied methods or conditions in which treatment takes place, all programmes addressing adolescents should include the following elements:

1 Adequately prepared and competent personnel who are motivated to be involved in work with young people,

2 Clearly set procedures for programme admission: owing to the fact that the young drug users enrolled in the programme are normally not motivated enough, are full of protest and fear, the admission procedures should contain clear and easily comprehensible programme details, promise of professional confidentiality where possible, and involving parents where legally required. One of the key components of the admission procedure is to explain, in a way which is friendly, helpful and avoids confrontation, what is and what is not treatment.

3 Detailed day programme showing framework and tasks within which there are programme components. Day programme enables taking part in the programme in a disciplined way, teaches organizational efficiency and diverse forms of time management from work through science to recreation and relaxation.

4 Conflict solving procedures and negotiations.

5 There is a need to establish a clear contract with the client (agreement concerning participation in the given programme); the contract should be drawn up in cooperation with the client and signed both by the client and the therapist, prepared in two copies for each party.

6 School learning: every treatment programme should consider the need for school learning because one of the most important factors of rehabilitation is returning to school.

7 Vocational education may be required for the older clients.

8 Working with peer pressure and violence – group therapy can help the client build up strength needed to override peer pressure and harness the influence of peer group in a positive manner.

12 Planning

A treatment plan should be developed by the primary therapists or treatment team in concert with the client, family, family collaterals, and, when possible, representatives of the referring agency. Engaging both the client and family in the treatment process can promote their willingness to participate in the actual intervention. The treatment plan should be comprehensive, specific, and objective so that progress can be measured. Naturally, the plan should address the environmental factors that may have contributed to the young person's substance use disorder and that could be a hindrance to recovery.

At the minimum, a treatment plan should identify the following:

- Target problems of the client and the family, including substance use and psychological, medical, and possible psychiatric disorders
- Goals that help clients recognise their involvement with substances and acknowledge responsibility for the problems resulting from substance use and that take into account what the adolescent wants to accomplish
- Objectives that are realistic and measurable steps for achieving each goal

- Time frames for the achievement of the stated objectives
- Appropriate interventions, that is, treatment strategies and services that are needed to achieve the objectives
- Assessment methods for measuring the extent to which goals, objectives and interventions are fulfilled
- Educational, legal and external support systems

The specified treatment strategies and services should include the identification of the people who will be providing treatment, an expected timetable for achieving the objectives, the date the treatment plan will be reviewed, and where treatment is to take place. The treatment plan should be subject to frequent reassessments to determine whether the adolescent is making therapeutic progress.

Treatment programmes must work closely with the other entities that are involved in the treatment of adolescents. Entities running programmes whose clients are often involved in multiple agencies (especially school system, child welfare, and juvenile justice agencies) should involve the other agencies and have the treatment plan on a written interagency agreement.

All specialists involved in treatment need to bear in mind some major aspects of dealing with adolescents.

They must be aware of:

1. The phases of adolescence and the things that adolescents need to do in order to become adults, the individual level of development which affects the type of relationship with other people, the degree of ability to reflect, and the ability to neutralize internal tensions.

2. The special interactions that come into play in the creation of relationships between adolescents and adults.

3. The function and the role of a treatment provider both as a professional helper and as an adult.

4. The function of parents and the role they play in the process of loosening the parent-child bond;
5. The function of peer group in the process of leaving the primary caretakers and in individuation and socialization.

Regardless of the applied methods and procedures, an essential element in therapy is the therapist - their convictions, values, lifestyles. That is why every professional who wants to work with youth should meet the following conditions:

- choose to work with young people,
- understand developmental features essential for growth of the individual,
- be flexible and understanding of the demands of adolescents,
- have a sense of humor.

Apart from that, those working with substance abusing young people should obviously receive specialized training and be ready to accompany adolescents on their path to health.

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Chapter 7 - Comorbidity of substance abuse: diagnosis and treatment implications in adolescents

Nesrin Dilbaz

Summary

Psychiatric comorbidities are common among both adolescents and adults with substance use disorders. The most frequent comorbidity patterns are mood disorders or disruptive behaviour disorders or both and anxiety disorders, eating disorders and schizophrenia. In addition to examining the diagnostic categories, screening and assessment and prevalence of substance use disorders (SUD) in adolescents, it is important to know what other psychiatric disorders individuals with SUD are prone to develop. Knowledge of comorbidity and outcome is important in assessing effective treatment for adolescents.

In general, treatment efforts addressing psychiatric and substance use disorders have developed in parallel. The adolescents with substance dependence and comorbid psychiatric disorders have poorer outcomes compared to single disorders. Comorbid mental health problems are associated with increased substance use severity, greater psycosocial impairment, treatment resistance and poorer long term prognosis.

The integration of services and effective treatments from both fields is critical to the optimal treatment of individuals with co-occurring disorders. Pharmacotherapy of comorbid disorders is not likely to be effective in treating mental health problems in the absence of specific substance treatment interventions in adolescents.

Comorbidity of adolescent substance use disorders and other psychiatric disorders is common. In the Oregon Adolescent Project (Lewinsohn et al 1993) 66.2% of the adolescents with substance use disorder also had a psychiatric disorder while 31.3% of adolescents who had a psychiatric disorder did not have a substance use disorder. Adolescents with substance use disorders reported a lifetime prevalence of 25.4% for disruptive behaviour disorder, 49.4% for mood disorder and 16.2% for anxiety disorder.

The Methods of Epidemiology of Child and Adolescent Mental Disorders (MECA) study revealed higher rates of mood and disruptive disorders among adolescents with current substance use disorders than those without substance use disorders (c 76% of the adolescents with a substance use disorder had at least one comorbid psychiatric disorder, whereas only 27.8% without substance use disorder had a psychiatric disorder. Adolescents with a current substance use disorder were 1.5 times more likely to be diagnosed with any anxiety disorder, 3.7 times with any mood disorder and 20.3 times with a disruptive behaviour disorder than adolescents without current substance use disorder. Young adults with a history of an anxiety or depressive disorder are shown to be at twice the risk for later substance abuse. Individuals with an onset of substance use disorder during adolescence are 3 times more likely to be depressed, 4 times more likely to attempt suicide than later onset. In dually diagnosed adolescents, treatment completion is associated with affective and adjustment disorders. Treatment non-completion is associated with conduct disorder. These studies have been undertaken in adolescents in treatment and are not necessarily reflective of comorbidity in the broader adolescent population.

Diagnostic issues

One of the more difficult tasks in assessing patients with co-occurring mood and anxiety symptoms and substance use disorders is the accurate diagnosis and differentiation between substance-induced states and primary psychiatric diagnoses. There is a diagnostic dilemma about anxiety, affective and substance use disorders because:

- drug and alcohol withdrawal can lead to symptoms of affective/anxiety disorders;
- individuals with anxiety/affective disorders can use substances of abuse to self-medicate;
- individuals vulnerable to anxiety/affective disorders may unmask or "cause" the disorder to become clinically evident through substance use.

Meyer suggested possible specific relationships between substance abuse and psychiatric disorders. These are:

- psychiatric disorders are the consequences of substance use or abuse;
- psychiatric disorders can alter the course of substance abuse;
- substance use or abuse can alter the course of psychiatric disorder;
- psychopathology of the patients and their families can be the risk factor for substance abuse;
- substance abuse and psychopathology have the common etiologic pathway.

The diagnosis whose symptoms and signs started first is stated as primary and the later as secondary in comorbid disorders. The primary disorder mostly is the underlying problem among the substance abuse in adolescents. At times, the complex relationships between anxiety symptoms, affective symptoms, and substance-induced symptoms can lead to diagnostic uncertainty. A family history of the particular psychiatric disorder, the onset of psychiatric symptoms before the onset of substance abuse and dependence, and sustained psychiatric symptoms during lengthy periods of abstinence all suggest a primary psychiatric illness.

There is increasing pressure from both psychiatric and substance use treatment settings to assess patients quickly and efficiently. Screening for psychiatric disorders in substance abusers is an under investigated area and may be particularly problematic because of symptom overlap. The Symptom Checklist (SCL-90) and the Structured Clinical Interview for DSM-IV (SCID) are two widely used instruments for psychiatric screening and diagnoses.

Optimizing Treatment

Optimizing treatment of psychiatric disorders is essential to improving the outcome of the substance use disorder. It has been long documented that high psychiatric severity predicts poor substance use treatment outcome. Several studies have shown that psychiatric disorders may worsen treatment outcome of substance use disorders. For example, depressed patients tend to do worse in treatment. Also, patients with depressive disorders are more likely to relapse to alcohol use earlier than those without major depression. Rapid relapse subsequent to substance use treatment has also been documented among adolescents with major depression. Patients suffering from posttraumatic stress disorder (PTSD) have poor treatment response. Similarly, substance abusers with ADHD do worse in treatment and are less successful in treatment goals.

Integrated, concurrent treatment of comorbid psychiatric disorders and substance abuse in adolescence are suggested by recent studies. The studies on the treatment of comorbid disorders such as ADHD, bipolar disorder and depression also supported this (Deas and Thomas 2001, Lohman at al 2002, Mikulich and Hall 2001,Geller et al 1998). Treatment of substance dependence does not treat comorbid psychiatric disorders such as ADHD, mood disorders in the absencence of the pharmacotherapy of comorbid psychiatric disorder

The ability to self-regulate subjective states through behavioural therapy can be extremely helpful to individuals in recovery. Also learning strategies to self-regulate anxiety and mood symptoms may help patients. Cognitive behavioural therapies are among the most effective psychosocial treatments for both anxiety and affective disorders (Barlow and Lehman 1996).

Cognitive behavioural therapies also have demonstrated efficacy in the treatment of substance use disorders (Anton et al 1999).] Behavioural therapies, such as relaxation, breathing and biofeedback techniques, are sometimes used in substance abuse treatment programmes. These modalities can also be effective in the treatment of anxiety disorders and the management of anxiety symptoms.

Most of the clinicians aim to treat substance treatment first then begin pharmacotherapy for comorbid psychiatric disorder because of the risk of interaction of medication with substances. When initiating pharmacotherapy the patient must be compliant with at least weekly therapy sessions. However, early treatment of a psychiatric disorder can be critically important in facilitating treatment engagement and retention during the initial months. The pharmacotherapy principles for comorbid disorders with substance dependence are listed:

- When medication is indicated consider medication with good safety profiles, low abuse liability and once per day dose if possible.
- İf possible use single medication.
- Provide education of the family and the patients about the potential adverse effects of medication and substances of abuse.
- Provide close monitoring of medication about compliance (initially weekly) , adverse effects, target symptom response and ongoing substance use.
- Monitor compliance with regular substance treatment (generally individual or family counselling at least weekly) and regular urine drug screening.
- Monitor patient motivation and target symptom response as well as behaviour change and psychosocial functioning throughout treatment.

If substance abuse or target symptoms of the comorbid disorder do not significantly improve within the first 2 months after initiating treatment or if there is an evidence of escalation in drug abuse or clinical deterioration consider the following options:

- Evaluate medication efficacy and change the medication
- Reassess diagnose
- Increase treatment intensity

In the recent years a lot of studies have demonstrated the efficacy and safety of some of the medications that are used in the treatment of mood disorder such as bipolar and depression and ADHD.

Outcome

Mixed comorbidity (internalising and externalizing disorders) is associated with higher levels of substance related problems and poorer outcomes. Child psychopathology particularly conduct disorder is associated with early onset of substance use in later adolescence. 126 adolescents with comorbid substance use and Axis I psychiatric disorders vs 81 SUD adolescents without an Axis I disorder were studied (Tomlinson et al 2004). According to this study that comorbid adolescents received more treatment during outcome period and they were also more likely to use substances following treatment. Internalizing disordered adolescent are less likely to use substances post treatment whereas extenalizing disordered (e.g. conduct disorder), adolescents returned to substance use rapidly.

Attention deficit hyperactivity disorder (ADHD)

Attention-deficit hyperactivity disorder (ADHD) is a common disorder in children that frequently persists into adulthood. Studies have found that substance use disorders (SUD) are seen more commonly in those with ADHD than the general population (Schubiner H, 2005, Blouin et al 1978, Biederman et al 1997). Studies of clinical populations of adolescent substance abusers have found high rates of ADHD gets to the conclusion that ADHD, is a common comorbid disorder found in adolescents with substance use disorder (Horner and Schiebe 1997, Bukstein et al 1989, Wilens et al 1994)

Retrospective studies reported a high rates of childhood hyperactivity among adult substance abusers (Alterman et al 1985, Tarter et al 1977). ADHD appears to be a significant risk factor for adult substance use disorders (Biederaman et al 1995) Family studies have found high rates of alcoholism and antisocial personality disorder in the parents of ADHD children (Cantwell 1972).

Individuals with ADHD have an earlier age of onset of substance use disorders, and substance dependence is less likely to remit than in those without ADHD. Also, a number of clinical epidemiological studies have reported high prevalence of ADHD in clinical samples of treatment-seeking substance abuse populations, with rates ranging from 15% to 24%. (Levin 2005). ADHD appears to make a substantial contribution to substance use problems and delinquency in adolescents. The comorbidity of ADHD and conduct disorder together appears to be a more significant risk factor for later substance abuse than conduct disorder alone (Lahey et al 1988)

An adolescent's decision to use drugs or not is the product of many forces, including social acceptability, parental influence, use promotion, substance availability, and drug policies; but also the result of the need to "fit in," and stresses at home, school, and in personal relationships. SUD is a multifaceted problem linked to comorbid conduct disorder, poor family supervision, and delinquent peer groups. In ADHD adolescents impulsivity may produce poorer school functions in the areas of both behaviour and association with other deviant peers as well as poor problem solving. Adolescents with ADHD can use substance as a form of self medication. ADHD also may reflect a type of brain functioning with a high level of reinforcement from certain psychoactive drugs. The treatment with stimulants during childhood and adolescence may result

in better academic, social, and emotional functioning, all of which may even contribute to a decreased risk of SUD.

Although treatment with stimulant medications has been shown to be effective for individuals with ADHD, concern about the use of these agents in this population persists. There has been some speculation that because stimulant drugs used in the treatment of ADHD, such as methylphenidate, have abuse potential, the link between ADHD in children and the development of substance use disorders in adolescents and adults may be causal. In other words, the use of stimulants in children may predispose them to the development of substance use disorders as adults (Schubiner 2005).

Dr. Wilens and colleagues recently published a thorough review of the literature in which they concluded that the majority of the literature supports the idea that medication treatment of ADHD in childhood actually has a protective effect with regard to the development of substance use disorders during adolescence or adulthood. (Wilens et al 2003). Recent meta-analysis shows that ADHD did not predict substance use, however unmedicated and under-treated adolescents were more likely to use substances of abuse. Regular monitoring is important in order to evaluate the efficacy of therapy, redefine treatment goals, and detect potential side effects of medications.

The use of stimulant medication represents the most robust medical treatment for ADHD. Approximately 75% to 95% of individuals will respond to the first choice of stimulant medication, regardless of the specific stimulant. About 10% to 20% of non-responders and individuals who have associated side effects to the medication can be effectively treated with a second stimulant. Amphetamines and methylphenidate constitute the first-line medications used to treat ADHD. Because multiple daily dosing is required with these medications and because they may result in "rebound" hyperactivity as their effects peak and wane, newer delivery options have been developed (Connors 2002).

The recent studies found no increased risk of subsequent stimulant or drug abuse in patients treated with stimulants as children. These findings are of high importance given general public concerns over possible abuse liability of stimulants; the negative findings of the study of Barley (2003) , along with the other 11 negative trials that examined this issue, should somewhat mitigate these concerns.

Individuals with ADHD and SUD can present difficult diagnostic and therapeutic challenges. It appears that the most effective treatment option is to create a programme that uses the most effective treatment modalities available, including both behavioural and medical therapies, along with close supervision and monitoring. Newer medical treatment options of long-acting stimulants and non-stimulants (e.g. atomoxetine) offer effective treatment with a lower risk of abuse potential.

Disruptive behaviour disorders

Disruptive disorders such as conduct disorder, oppositional defiant disorder and ADHD are the most common comorbid psychiatric disorders found in adolescents with substance use disorders (Bukstein et al 1989) . Among the studies of adolescent comorbidity in clinical sample the lack of valid and reliable nosology and problems in assessment are the methodological problems that limit the generalization of these results. Adolescents with comorbid disorder apply for treatment

because of the severity of the impairment. Therefore these findings can be used to represent the characteristics of the clinical sample instead of prevalence rates.

Robins and McEvoy (1990) found that conduct disorders in childhood is a predictor of drug use or abuse in adolecence and early adulthood. In New Zealand study Fergusson et al (2000) found that conduct problems at age of 8 predicted substance use at 16 years in both gender. In MECA study 68% of the adolescents with a substance use disorder had comorbid disruptive behaviour disorder. In studies of clinical sample adolescents with substance use disorder disruptive behaviour disorders are found up to 80%.
Childhood antisocial behaviour such as aggresiveness, early conduct problems and ADHD increase the risk of alcohol and drug problems (McCord and McCord 1960, Loeber 1988). Loeber (1988) proposed three different development pathways among adolescents with disruptive behaviour disorders:

- Aggressive versatile path: shows an early onset of substance use and abuse with a low remission rate, early onset of conduct problems, aggressive behaviour, high rate of ADHD, poor social relations and male predominancy.
- Nonaggressive antisocial path: is a predictive of later substance use, with a higher remission rate, late onset, few problems of attention, aggression, impulsivity and social relations.
- Exclusive substance abuse path: is the development of substance abuse in middle to late adolescence without antecedent deviant behaviour.

Aggression in adolescence is a better predictor of the stage of substance abuse and polysubstance use (Brook et al 1986) . Aggressive behaviours are present in a large number of adolescents who have conduct problems and who had substance abuse (Milan et al 1991). Conduct disorders or delinquency usually precedes substance use and substance use disorders (Clark et al 1997, Loeber 1990) The more serious the substance use is the higher the likelihood of more serious forms of delinquency (Loeber 1988, Bohman et al 1983). Early conduct disorder and/or juvenile delinquency strongly contributes to SUD in adolescence. Conduct disorder usually precedes the development of SUD. Juvenile offenders with SUD have a greater additional psychopathology than non-SUD juveniles. Females with conduct disorder progress more rapidly to SUD.

Mood disorders

Symptoms of mood instability and depression are among the most common psychiatric symptoms seen in individuals with substance use disorders. In the ECA study, 32% of individuals with an affective disorder also had a comorbid substance use disorder (Reiger DA et al 1990) Of the individuals with major depression, 16.5% had an alcohol use disorder and 18% had a drug use disorder; and 56.1% of individuals with bipolar disorder had a substance use disorder. In both the ECA study and the NCS, bipolar disorder was the Axis I condition most likely to occur with a substance use disorder.

In MECA study 32% of the adolescents with a substance use disorder also reported a current mood disorder (Kandell et al 1999). The rate of depressed adolescents in clinical populations of adolescent substance abusers as high as 50%.. Major depressive disorder (MDD) is the most common mood disorder in adolescents with SUD whether in the community or in the clinical

population (Bukstein et al 1992, Lewinsohn et al 1993) . Although bipolar disorder has a modest prevalence in adolescents with SUDs there is evidence that adolescent onset of bipolar disorder is associated with a higher risk of SUD in adolescence or adulthood (Beiderman et al 1997, Wilens et al 1999).

Treatment implications of mood disorders comorbid with substance use disorders

For the pharmacotherapeutic treatment of comorbid alcohol dependence and major depression, data support the use of SSRI agents. If ADHD is also present bupropion may be the first-line choice. For cocaine- and opiate-dependent individuals with major depressive episode, there are limited data supporting the use of TCAs, but studies thus far testing the efficacy of SSRIs have been negative. TCA are relatively contraindicated in treatment of depression in ADHD. These agents have significant anticholinergic and cardiac side effects and a considerable danger of death. Trials of some of the newer antidepressants with mixed 5HT/NE activity (venlafaxine/duloxetine) in alcohol-, cocaine- and opiate-dependent individuals with major depressive episode would be of interest in this regard.

Although mood stabilizers such a lithium, valproic acid and carbamazepine is the first line treatment in bipolar adolescents there is only a few controlled trial about adolescents with bipolar and substance dependence. Lithium has been the standard treatment for bipolar disorder for several decades; however, substance abuse may be a predictor of poor response to lithium (Bowden 1995). A double-blind pilot study of 25 adolescents reported an advantage of lithium carbonate over placebo on the urine-positive screen (mostly marijuana) and also on mood symptoms (Geller et al 1998).] Adolescent-onset bipolar disorder may be a significant risk factor for the development of substance use disorder (Wilens et al 2004); thus, effective treatment of adolescent-onset bipolar disorder should be particularly beneficial in the prevention of substance use among these patients. Patients with mixed manic episodes or rapid-cycling disorder have a better response to anticonvulsant drugs compared with lithium. Patients with bipolar disorder and concomitant substance use disorders appear to have more mixed or rapid-cycling episodes and therefore may have a better treatment response with anticonvulsant mood-stabilizing medications. Weiss and colleagues (1998) reported better medication compliance with valproate, compared with lithium, in a group of substance-abusing patients with bipolar disorder. Brady and colleagues (2002) recently reported on results from a placebo-controlled, double-blind trial in which carbamazepine showed preferential efficacy in decreasing cocaine use in cocaine-dependent individuals with affective disorder as compared with those without affective disorders.

Suicide

There is increasing evidence about the relationship of suicide and SUD in adolescents. As shown by the National Household Survey on Drug Abuse (NHSDA) report issued in 2002, youths involved in violent behaviour were more likely to have used illicit drugs or alcohol than were young people not involved in violent behaviour. Increased risk for depression and suicidal behaviour has also been associated with adolescent drug use. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), young people who use illicit drugs other than marijuana are more likely to be at risk for suicide than are young people who do not use such drugs (29.4% vs 10.1%).

Recent studies support substance abuse as a risk factor for suicidal behaviour, ideation and attempted and completed suicide. Comorbidity of mood disorders with substance abuse is one of several putative risk factors for completed suicide (Brent et al 1998, Bukstein OG 2001) Substance abuse contributes to increased rate of adolescent suicide, especially when it is present comorbidly with depression. Psychosocial stressors of recent interpersonal separation and history of family dysfunction are more common in adolescent suicides with alcohol abuse plus depression than depression alone (Deas 2005)

Aggression and impulsivity are common in conduct disorders and may be important factors in the risk for suicidal behaviour in substance abuse adolescents (Apter et al 1988)

Anxiety disorders

The ECA study revealed a 1.5% lifetime prevalence of panic disorder among adults, with 36% having a co-occurring substance use disorder The risk of a comorbid substance use disorder in patients with panic disorder was 2.4 times higher than that in the general population. Post-traumatic stress disorder (PTSD) is one of the most common anxiety disorders in individuals with substance use disorders. In the NCS, the odds ratio for substance use disorders was 2-3 for men and 2.5-4.5 for women with PTSD. Cocaine/opiate users were most likely to report a PTSD-qualifying traumatic event (43%), and the overall rate of PTSD was 10 times higher among these individuals compared with individuals without a substance use disorder. Reports from treatment-seeking samples of substance abusers also indicate a high prevalence of PTSD. The ECA revealed a 1-2% lifetime prevalence of OCD in the general population.[1] Although OCD has been reported to coexist with many other psychiatric disorders, little has been reported about the comorbidity of OCD and substance use disorders.

In several studies of treatment-seeking alcoholics, 3-12% were reported to have OCD. Based on data from the ECA study, the risk of developing OCD was estimated to be 5.6 times higher for individuals using both cocaine and marijuana as compared with individuals using no illicit substances. The lifetime prevalence of social anxiety disorder in the NCS was found to be 13.3%, with 7.9% 12-month prevalence. Individuals with social phobia have high rates of comorbidity with other psychiatric disorders, particularly with substance use disorders. Studies examining the relationship between alcohol abuse and dependence with social phobia have found rates of comorbidity ranging from 8 to 56%.

In MECA study %20 of adolescents with SUD reported comorbid anxiety disorder (Kandell et al 1999) whereas in OADP project 16.2% of adolescents with substance use disorder has also anxiety disorders. Anxiety disorders were associated with problematic alcohol use and also adolescents with SUD have shown high rates of comorbid anxiety disorders. Clark et al (1994) reported that anxiety disorders were common in adolescent treatment population with early onset alcoholism. According to this study half of this sample had at least one life time anxiety disorder diagnosis with PTSD as the most common diagnosis (25% of the population).

Adolescents with comorbid substance abuse, conduct disorder and anxiety disorder had more depressive symptoms and suicidal behaviour than normal controls. The reason of the early onset of alcohol use is maybe anxiety in adolescents. 41% of high school seniors reported that they used drugs "to get relaxed and to relieve from tension". 64% of barbiturate users, 69% of

tranquilizers users and 40% of alcohol and 41% marihuana users reported as tension reduction is the main reason for their drug use (Johnston and O'Malley 1986) .

Treatment implications of anxiety disorders comorbid with substance use disorders

CBT often used in combination with SSRI medications are standard treatment for anxiety disorders in adolescents without SUD. The high rates of comorbid depression with anxiety disorders suggest the clinicians may consider SSRI's in dual diagnosed adolescents with anxiety disorders. Benzodiazepines are contraindicated for anxiety disorders in patients with SUD because of the risk of their abuse.

Eating Disorders

Researches investigating the comorbidity between eating disorders and substance-use disorders have reported positive but contrasting results. Lifetime prevalence of substance use disorders among anorexia nervosa (AN) ranges between 12% and 21% compared to 11% of women in general population. The lifetime prevalence of substance use disorders among bulimic patients is approximately 25% and patients with bulimia nervosa (BM) most frequently abuse alcohol, cocaine and marijuana. Patients that had dual diagnoses of SUD and BN commonly exhibit impulsivity including suicide attempts, self-injurious acts and stealing. Results show that subjects suffering from anorexia of the restrictive type show significantly less drug-consumption behaviours and alcohol abuse and/or dependence disorders than purging anorexic and bulimic subjects (Corcos et al 2001) . No difference was found in the total consumption of psychotropics among the four groups of eating disorders. However, more than half of eating-disorder subjects are regular consumers of psychotropics. Among these regular consumers, bulimics self-prescribe and increase their doses of psychotropics significantly more than anorexics.

Cannabis abuse and psychosis

Cannabis abuse is a significant problem among individuals with psychotic disorders. Epidemiologic surveys have documented that 47% of patients with schizophrenia have substance use disorders. Alcohol, cannabis, cocaine, and nicotine are the primary substances of abuse in schizophrenia. The rate of cannabis use disorders among first-episode patients is substantial, with some studies reporting rates up to 50% (Green et al 2003.
Longitudinal studies have indicated that up to 63% of first-episode schizophrenia patients have used cannabis prior to psychosis and 53% have concurrent cannabis use with the development of psychosis.

Several hypotheses are advanced to explain the high association between substance use disorders and schizophrenia. This may include a potential causal link between cannabis use and the development of schizophrenia, and whether cannabis increases the vulnerability to schizophrenia. A recent study by Caspi et al (2005) has provided evidence that in a birth cohort followed to adulthood a functional polymorphism in the catechol-O-methyltransferase (COMT) gene (that determines the rate of catabolism of frontal dopamine) interacted with adolescent-onset cannabis use to predict the emergence of adult psychosis. Carriers of the COMT valine alelle were most likely to exhibit psychotic symptoms and schizophreniform disorder if they use cannabis in adolescence. (Broome MR et al 2004).

The odd ratio was 2.1 at the meta analysis of the prospective studies to investigate the overall effect size and consistency of the association between cannabis and psychosis. That ratio could not be explained by confounding or reverse causality. Henquet et al (2005) stated that the evidence suggested that cannabis is a component cause in the development and prognosis of psychosis. This association mostly can be explained by the gene-environment interaction. The gene-environment interaction was not found in adult onset cannabis users. (Cannon M, Clarke MC 2005) Studies have shown an earlier age of onset of schizophrenia in cannabis users.

Also individuals with schizophrenia may be prone to use cannabis as a form of self-medication. Patients with schizophrenia may have mesocorticolimbic dopamine system dysfunction leading to reward deficit that could predispose them to cannabis and other substance abuse (Salloum IM 2005).

The association of cannabis with schizophrenia leads to many negative consequences, including earlier onset of schizophrenia, increased relapse, treatment non-compliance, poorer overall response to antipsychotic medication, more hospitalizations, increased risk for violence, and increased medical costs.

Treatment programmes that integrate attention to both disorders, including pharmacotherapy and substance abuse psychosocial services, may best address the need for these patients. Studies of pharmacotherapy for comorbid cannabis use in patients with schizophrenia have shown that typical antipsychotics are of limited value in controlling the substance abuse. Comorbid patients have shown poor response to these medications, with increased incidence of extrapyramidal side effects and minimal improvements in negative symptoms.
Among the atypical, or novel antipsychotic drugs, clozapine appears to be the most promising so far for schizophrenic patients with comorbid substance abuse.

Recommendations

1. Knowledge of comorbidity and outcome is important in achieving the most effective treatment in adolescents.

2. Integrated, concurrent treatment of comorbid psychiatric disorders and substance abuse in adolescence is suggested. Treatment programmes should preferably have an integrated approach to both disorders, including pharmacotherapy and psychosocial interventions.

3. The most effective treatment option is to create a programme that uses the most effective treatment modalities available, including both behavioural and medical therapies, along with close supervision and monitoring.

4. Monitoring patient motivation and target symptom response as well as behaviour change and psychosocial functioning throughout treatment is recommended. Regular monitoring is important in order to evaluate the efficacy of therapy, redefine treatment goals, and detect potential side effects of medications.

5. Since substance abuse is a risk factor for suicidal behaviour the suicide risk should be assessed.

6. Inpatient psychiatric care needs to be provided for those adolescents that experience severe co-morbid disorder.

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Chapter 8 - Treatment considerations for pregnant drug users

Gerry McCarney, Brion Sweeney

Summary

This chapter looks at the profile of and the issues concerning drug using pregnant young women. Consideration is given to their particular needs and the difficulties that services will have in engaging them in treatment. We suggest principles upon which such specialist services could be based, in order to provide a comprehensive and client centred treatment plan. Practical suggestions for developing care plans are given.

Treating young pregnant women who use drugs is quite a specialist and multifaceted area of treatment, and this demands effective multi-agency involvement. The sharing of knowledge between professionals will enhance the effectiveness of such a service, and this chapter aims to given an overview of typical care pathways for such clients.

It looks in particular at the treatment and care of young mothers to be and the effects of particular drugs of abuse on the mother and foetus.

Introduction

Since the 1960's, there is widespread evidence of an increase in substance misuse in the developed world. In line with the changing structure of society since the mid-20th century, the emergence of a distinct "Adolescent Phase" in an individual's life cycle has given rise to the concept of a "Youth Culture". Given that people generally spend longer in education, and become consolidated as a cohabiting couple later in life (if at all), adolescence has assumed an increasingly important role as a developmental phase in the transition from childhood to adulthood. During adolescence important developmental changes occur across multiple domains including, biological, emotional, social, spiritual, psychological and intellectual.

It is the task of this phase of life to move from the dependent state of middle childhood through a process of increasing independence and individuation. This involves developing an increased capacity for decision making, and taking greater responsibility. There is also the emergence of gender role difference, alongside increasing peer influence and peer pressure. These challenges can lead to further growth and maturity, but an inability to acquire new skills can make this transition to adulthood difficult and stressful. The combination of these many changes with an adolescent's natural curiosity for new experiences, makes this a time when many may experiment with drugs. Some of these drugs are legal (alcohol, cigarettes), some are available via prescription, (benzodiazepines), and others are readily available despite their illegal status (heroin, cannabis, cocaine, etc.) (Fischer, 2000).

Drug use has many dangers, and some young people will already have had the unfortunate experience of suffering the results of parental or familial substance misuse as they were growing up. The effect of family conflict and low family bonding have been implicated in the development of adolescent drug use (Guo et al, 2002). Both the Attachment Theory of Bowlby, and the work on separation by Ainsworth, suggest that one's early life is a critical time in the emotional development between mother and child. In developing best practice models for the

treatment of pregnant substance misusers, there is an opportunity to prevent the trans-generational spread of morbidity. The proper management of pregnancy for a vulnerable young person has been shown to be cost effective when one considers the total cost of care in the longer term, (Svikis, et al. 1997).

Traditionally, services for women have reflected the fact that men are privileged in terms of power, influence and resources. Current studies examine how societal change can occur by accommodating sex differences (Mansdotter, 2004), and such concerns about inequalities in health care have led to the consideration of gender sensitivity when planning services (Miers, 2002). This involves an understanding of the socio-political context of relationships, and an acceptance that social context affects health. Such thinking, allied to the current trend of service user involvement, will help with planning a user friendly, accessible and effective service.

Recent trends in drug use during pregnancy

Drug use trends are constantly evolving. The most recent picture (EMCDDA Report 2005) indicates that cannabis use has increased overall, but remains stable both in some high-use and some low-use countries. It remains the most widely used illicit drug, and is also the most commonly used illicit substance during pregnancy. The recent increase in cannabis use is seen particularly in the newer EU countries. This trend is seen with other illicit drugs also. Opiates remain the drug group for which treatment is sought most often. Young people who are pregnant while abusing opioids remain among the most vulnerable group, and opiate use carries the highest risk of harm to mother and baby, (Finnegan, 1995). It is for this reason that this group in particular is considered in this chapter. Recent figures show that the overall rate of deaths from IVDA (intravenous drug abuse), across Europe has been falling since the mid-1990s. This makes possible a shift of focus to include the reduction of morbidity as well as mortality.

When looking a drug use in women who are pregnant, Illicit drug use in the month prior to assessment occurs in about 4%, while binge drinking of alcohol is at about the same or slightly lower rate. Cigarette use remains high at 18%. Overall, drug use was lower in pregnant women than in non-pregnant women, especially for older pregnant women. In the younger (15-17) age group of pregnant women, there are levels of opiate use which are almost as high as that for non-pregnant drug users. Binge drinking is more common and cannabis use is higher for these young people also. For older women the rate is about half that of non-pregnant users (NSDUH, Substance Use During Pregnancy, 2002 and 2003 Update / NHSDA Report 2002, Substance Use among pregnant women / NSDUH Report 2004, Pregnancy and Substance Use)

The overall rate of drug use during pregnancy is unknown, but various studies have tried to estimate the rate in small samples. In the UK, anonymous tests indicated that 8.5% of pregnant women screened positive for cannabis and 2% for opioids, (although figures for London are likely to be higher than UK as a whole, (London, 1990). Alcohol use was more than 50% in some cases (Centre for Substance Abuse Treatment, US, TIP 2).

Other studies looking at the 15-44 age group, have found that 90% have used alcohol, 44% cannabis, 14% cocaine (ACOG 1994). In the US 5% of births in 1992 had evidence of illicit drug use during pregnancy (Westat Inc, 1996). Substance use in pregnancy may range from 0.4% to 27% (Rayburn, 2004). More recent studies indicate even higher rates (Rosen, 2002). Given these figures there is clearly a need to consider the possibility of substance misuse in each pregnancy, as

the increase in illicit substance misuse has yielded an increase in the number of young pregnant women presenting with substance use problems.

Best Practice recommendation

- There is a need for routine screening for licit and illicit drug use in all young pregnant women.

Pre-conception counselling

The full range of reproductive options permissible in the jurisdiction should be discussed with any female of child bearing age who attends a drug treatment clinic. A discussion regarding the role of contraception in her management of this is important. Birth control issues should be discussed in an ethnically and culturally sensitive way, bearing in mind what is safest and more effective. Intrauterine contraceptive devices, long acting depot contraception and barrier methods of contraception are particularly useful in this group. It is noted that ovulation can recommence in recovering previously amenorrheic women. The impact of drug and alcohol use on both the woman and her foetus, and the risks of prescribed drugs, e.g., disulfiram, anticonvulsants, antidepressants, can be explained also. All pregnant women should be encouraged to stop illicit drug use once they become pregnant.

Profile of a young pregnant drug user

While young pregnant substance misusing women may be in secure relationships, have secure jobs and have good housing, many substance abusing pregnant women are single parents, with no financial support from father(s), are unemployed and lack employment skills. Some are homeless, others live in unsafe home environments, they may suffer domestic violence or sexual abuse, and often they lack child care facilities. Other problems that such women may experience are poor education and training, poor parenting skills and parenting experience and a poor knowledge of child development. They may have special therapeutic needs, co-dependency, incest, victimisation, difficult interpersonal relationships, physical and mental illness. Frequently have little or no transportation, making appointments difficult to get to, (Finnegan, 1995).

When pregnant, there is added stigma attached when identified as a drug using woman (Bolnick, 2003). Young, poor and vulnerable girls with prior negative experiences of statutory services may be afraid to come forward for treatment. They may be afraid of legal or childcare repercussions if they admit to illicit drug use (Deleon and Jainchill, 1991), or they may fear that their drug use will be detected by routine tests should they present for routine obstetric care. Unfortunately, this can often sometimes result in pregnant women presenting at a very late stage in their gestation which may effect treatment delivery or lead to a poor post natal outcome. They are more likely to engage if they perceive services as being useful to them. However it has been shown that where specific services are available, young pregnant drug users do attend regularly and at an early stage. Therefore barriers to treatment be they perceived or real, need to be proactively addressed.

Some women have amenorrhea due to their drug use (especially with opiate misuse), and so may not realise that they could be pregnant. Sexually Transmitted Diseases, poor nutrition, poor dental hygiene and high levels of anxiety are also commonly found in this vulnerable group of women. 50% will have a drug using partner, and this demands consideration of an offer of

treatment for her partner in order to improve her chances of stabilising. The options of adoption, foster care and termination of pregnancy can also be considered. For many substance misusing pregnant women, parenting may be an area they lack confidence in, and many welcome help and support in this area. Sometimes, this lack is due to their own impoverished experience of being parented when they were children.

Difficulties of engaging pregnant drug users

Many may already have a distrust or dislike of 'authority systems'. Feelings of fear or guilt, negative past experiences or perceived prejudice can make it very difficult for pregnant drug users to come forward to share their story and their anxieties.

Antenatal clinics can be an excellent site for primary care and prevention. They can offer accessibility and availability, and less stigmatisation than 'drug services'. Pregnant drug misusing women have increased maternal and perinatal mortality and morbidity and so they need an obstetrically led multidisciplinary care embedded in maternity services. Multidisciplinary teams are well placed to help a young pregnant woman to aim for an environment free from illicit drug use. A broad skill base will enable an holistic approach to effect change in the young woman's life. Dedicated teams have shown positive results in a few studies, (Dawe, 1992; Day 2003; Fischer, 2000; Morrison, 1995; Ward, 1998), with a benefit which is considered to be in direct proportion to the time given to the pregnant women.

Abstinence is the ideal, but it may be unachievable treatment goal in the short term. Methadone Maintenance Therapy (MMT), can stabilise a pregnant woman's drug use. Buprenorphine has also resulted in stabilisation during pregnancy. The engagement of parturients in treatment is the first priority. Maintenance therapy is better than a failed abstinence, and as such stabilisation will be the first aim after engagement in treatment for many clients. Therapeutic communities have been tried as an alternative, but there is little data on their effectiveness. In this milieu, the treatment is administered through the interventions of psychologists and sociotherapies, (Fischer, 2000). A preventative role for addiction services would be to identify their specific needs as they struggle with their different roles of parent, partner, head of household, provider and recovering drug user, and help them address these differing roles.

Best Practice Recommendation

Barriers to early engagement in treatmetnof young pregnant substance misusers needs to be comprehensively tackled at a national strategic level by drug treatment and obstetric services. Service provision including advetising, staff and siting of services needs to maximise the accessibility and consumer friendly aspects of the programmes, so as to attract young pregnant women and their partners into treatment at an early stage of problematic substance misus. (See Chapter 4 – How to establish contact with young people who use drugs? Pelc et al.)

Specific information on different drugs which may be used during pregnancy

Direct effects of drugs

Illicit drugs find it easy to pass the placental barrier to the foetus (Bolnick 2003). Alcohol and nicotine are the most commonly abused substances, followed by cannabis. The direct toxic or

teratogenic effects of illicit drugs can lead to foetal demise, dysmorphism, growth restriction, or to behavioural changes. Another danger associated with non-prescribed drugs is that the dosage is uncertain (unregulated) - this can lead to toxic levels, while there are also risks associated with impurities of the drugs consumed. The clarification of which substances cause which effects on the foetus, and at what dosage and to what degree they do so, is difficult due to many confounding variables. The abuse of multiple substances (poly drug use) is now the rule rather than the exception. Social, cultural, environmental, genetic and parenting influences are also involved, and it is impossible to study each variable in isolation.

1 Amphetamines

The chronic use of amphetamines can lead to permanent neurological injury. It is associated with congenital malformations - cleft lip/palate, cardiac and Central Nervous System (CNS), abnormalities and low birth weight babies. Amphetamines can have a stimulatory effect on the baby, and have been associated with convulsions, agitation, and hypertension.
They can also be associated with behavioural difficulties and may be a self-limiting condition if the post-natal environment is a supported one. Intravenous use in particular can be dangerous, and the foetus is usually more vulnerable than the mother. Intrauterine growth retardation and preterm labour have been associated with amphetamine use.
It has also been noted that the effects of amphetamine on the personality of the woman can make engagement in treatment more difficult. A symptomatic withdrawal regime with small amounts of benzodiazepines may be considered useful, although the use of benzodiazepines should be short and weighted against possible teratogenic effects in the 1st trimester.

2 Alcohol

Alcohol is one of the most commonly abused substances in pregnancy. However, because it is legal and it is socially acceptable to use alcohol, there is a misperception that it is less harmful than other drugs. Safe levels in pregnancy can not be precisely identified. Maternal complications of alcohol include nutritional deficiencies, pancreatitis, alcoholic ketoacidosis, alcoholic hepatitis, deficient milk ejection, cirrhosis and it may also precipitate early labour.

2.1 Foetal Alcohol Syndrome (FAS)

Foetal alcohol syndrome was first described by Jones et al in 1973. The rate of FAS has been calculated at 2/1000 babies born. Ethanol readily crosses the placenta, where it can damage mitochondria and cell membranes. The foetal effects include, growth retardation, low set unparallel ears, short flattened philtrum, elongated mid-face, small head, short upturned nose. The baby can also have malformations of major organs and skeletal deformities. CNS disturbances leading to behavioural problems have also been noted. Deficits in intellectual functioning can occur in the absence of the above (Mattson S, 1997). If more than five ounces per day of alcohol is taken, there is a 40% risk of foetal malformations. Greater than 2oz /day (i.e. persistent heavy drinking) will increase the risk of spontaneous abortion or placental abruption. One study indicates that 'moderate' drinking (<14 units per week) during pregnancy does not lead to detrimental fatal effects (Bolumar 1994). Alcohol withdrawal for the neonate typically occurs 48 hours after delivery. If withdrawal requires treatment, then benzodiazepines or phenobarbitone can be used. Disulfiram is thought to be teratogenic, and should be avoided

during pregnancy. Pre-delivery, the anaesthetist should be made aware of any liver damage, as it may have implications for treatment.

2.2 Alcohol detoxification

Alcohol detoxification is generally treated with benzodiazepines such as Chlordiazepoxide (short acting) or Diazepam (longer acting). However, benzodiazepines are potentially teratogenic, and so the risk – benefit ratio needs consideration. Disulfiram is contraindicated, as it has been associated with clubfoot, the VACTERL syndrome, and phocomelia of the lower extremities. Lofexidine is also not licensed for use in pregnancy. Thiamine, folic acid, prenatal iron and vitamins are of benefit to the pregnant woman. Obtaining laboratory tests at assessment are important. Consider checking a blood alcohol level as this will help to estimate when withdrawal is likely to begin. Note that the average elimination rate of 30mg alcohol/dl/hr may be increased in pregnancy. Non- pharmacological interventions are also of use, including the reduction of stimuli, adequate hydration, reality orientation and nutritional support. Frequent re-assurance, sleep and rest are also of benefit.

Detoxification from alcohol involves monitoring parental withdrawal status and foetal well being, and one may need to reduce medications if over-sedation occurs, (Centre for Substance Abuse Treatment , TIP 2). It is necessary to monitor for Alcohol Withdrawal Syndrome (AWS) in the mother, including the vital signs and temperature, observing for signs of delirium, Wernicke's encephalopathy, psychosis, irritability, increased autonomic reflexes. Meanwhile, foetal well being is closely monitored. Positive social support should be ongoing after delivery, and discharge should involve a case-managed care approach.

3 Benzodiazepines

There are concerns regarding a slightly increased risk of cleft lip and palate if benzodiazepines are used in the 1st trimester, noted in data from case-control studies (Wright 2001). All pregnant women using benzodiazepines should be offered a detailed scan at 18-20 weeks. Other than that, there is little evidence that benzodiazepines have a direct negative effect on pregnancy, but an association has been noted with premature labour, low birth weight and premature birth. Their use has also been associated with social problems for the mother. There is also a risk of the newborn experiencing a benzodiazepine withdrawal syndrome, which can be especially severe and prolonged if maternal polydrug use is involved. Maternal use of benzodiazepines near term can lead to 'floppy baby syndrome' which consists of lethargy, irritability, reduced muscle tone and respiratory depression in the newborn, and a neonatal abstinence syndrome. (Sanchis 1991)

Benzodiazepine detoxification

With high benzodiazepine use, detoxification may be best carried out in an inpatient setting. One approach is to aim for a 15% reduction each week for 1st 3 weeks, then aim for a 10% reduction per week thereafter. Others favour a faster process, aiming for 5-10% reduction per day and tapering off benzodiazepines over a 3 week period. The titration of the dose reduction against the signs of withdrawal or any indications of early labour, for which there is a need to monitor both mother and child. Sudden withdrawal has a risk of seizure, status epilepticus and maternal respiratory distress and precipitation of early labour, and as such can be obstetric emergencies. The use of anticonvulsant cover is controversial as they are associated with congenital anomalies

and should only be used in the 1st trimester where the benefit clearly outweighs the considerable risks involved in their use, e.g., in women who have epilepsy.

4 Cannabis

Cannabis may act as an anti-emetic in the 1st trimester (Westfall 2006), which can reinforce its use. Tetra Hydro Cannabinol, (THC), the active ingredient of cannabis, has been reported to inhibit DNA, RNA & protein synthesis. There is some evidence to support the process of transplacental transfer of THC in animals and humans (Blackard 1984). Animal studies suggest the danger of irreversible effects on behaviour and brain function (Lastres-Becker, 2002). The long term effects of cannabis use in pregnancy are uncertain, but the evidence is growing that prenatal exposure leads to neurobehavioural and cognitive deficits (Viveros, 2005; Fried 1987, 2001). There may be sleep problems, and neonates may have tremors, an increased startle response, and a reduced habituation to visual stimuli. Poor problem solving, memory, attention, and abstract and visual reasoning were noted in Canadian and American studies, (Fried 2002, Richardson & Day, 1993). Cannabis is frequently used together with tobacco, which can lead to reduced birth weight and an increased incidence of Sudden Infant Death Syndrome, (SIDS).

5 Cocaine

Cocaine leads to adrenergic stimulation and vasoconstriction as well as the potential for cardiac arrhythmias. Pregnancy stimulates hepatic N-demethylation, which increases the toxicity of cocaine. Repeated use may increase this risk further, and even more so if used concurrently with alcohol. There is a risk of sudden death in the user of cocaine. Because cocaine is a vasoactive drug, causing powerful constriction of blood vessels, it can cause placental and fatal vasculature damage and hypoxic damage to the foetus. There is a dose–dependent inverse relationship between the maternal plasma cocaine levels and placental blood flow. If chronic cocaine use in pregnancy occurs, this can seriously restrict foetal growth. Babies born to cocaine using mothers have been reported to have more congenital anomalies and a small head circumference, (Singer 1994). The neonate can exhibit neurodysfunction including irritability, poor sleep, tremors, hypertonia, lability of mood, seizures and abnormalities of tone, posture and movement (Chiriboga 1999). There have been reports of EEG abnormality in 50% but most return to normal in the first few months of life. Retroplacental haemorrhage has been reported as a cause of foetal death (Hulse 1997), and chorionic villi haemorrhage and villus oedema have been noted, (Mooney 1998). Intraventricular haemorrhage and developmental delay are associated with cocaine use by the mother while she is pregnant (Singer 1994, Smit 1994) and also later behavioural problems (Chiriboga 1999, Singer 1994).

Statistically there is a slight increase in placental abruption and there may be low foetal birth weight. Teratogenesis is not particularly associated with cocaine. Breastfeeding for women who continue to abuse cocaine post partum is not recommended, as it can reinforce the neurotoxic syndrome. Despite reports to the contrary, there is no solid evidence that cocaine invariably causes a withdrawal syndrome in the neonate.

The use of crack cocaine is particularly associated with chaotic day-to-day existence. The potential for medical and social harm to both mother and child is high. The behavioural aspects which are seen with 'crack babies' may be due to the level of care the baby is receiving, and

within a supportive environment these symptoms are usually self-limiting. Sedation may be required in the short term for babies born to mothers who have used crack cocaine.

Cocaine detoxification

There is limited evidence for medical intervention in the withdrawal process for cocaine using mothers, although symptomatic treatment may be required including the judicious use of rapidly tapering intermediate benzodiazepines such as diazepam. But if detoxification is attempted during pregnancy then the effects on the foetus at that particular stage of pregnancy need to be taken into consideration. Inpatient treatment enables a comprehensive support package to help the woman. It is essential for treatment to continue, i.e., to refer to counselling and aftercare rehabilitation services, after the initial removal of the drug of abuse. Acupuncture has been tried for cocaine withdrawal with little evidence of success as studies designs have been poor. However studies suggest it helps with retention in treatment.

6 Ecstasy (MDMA)

This is widely used as a drug of recreation. As a result of animal studies, in utero exposure to MDMA is thought to exert a neurotoxic effect on 5HT nerve terminals (Coada M, 1997, Bronson M 1994, St Omer, 1991). Some studies on humans have suggested an increased rate of congenital malformations, particularly cardiovascular and musculoskeletal, however these have not been confirmed. MDMA is not considered to cause a withdrawal syndrome.

7 Nicotine

Cigarette use in pregnancy is the most common form of substance use during this time. Complications associated with this include miscarriage, placental abruption, placental insufficiency, preterm labour, Sudden Infant Death Syndrome, (SIDS), and low birth weight babies (DiFranza 1995, Craig 2001). Babies are lighter , and have reduced head circumference and more abnormalities in neurological examination (Dejongley 1994).Tobacco use may lead to withdrawal in the neonate. It is noteworthy that concentrations of nicotine in the placenta, amniotic fluid and foetal serum are higher than in the maternal serum (Luck 1985). Nicotine impairs foetal growth, and the mechanism of action may be through a reduction in placental and uterine blood flow (Clark 1992)

8 Opiates

Heroin

Heroin users accounts for many of the substance abusers who attend clinics when pregnant. Not all will inject, as many smoke heroin. Opiates readily cross the placenta to the foetus, with peak levels within 1 hr of injecting and it can be detected in amniotic fluid long after the cord levels reach zero, implying a more prolonged exposure of the foetus to the opiate. In Accident & Emergency departments, the effects most commonly seen in the mother are related to respiratory depression, complications of injecting and infectious sequelae. Difficult social circumstances tend to be common in this group. Heroin is short acting, and many adverse effects on the foetus are due to withdrawal. Withdrawal causes contraction of smooth muscle, which in turn can lead to

spasm of placental vessels, with resultant lowered placental blood flow and reduced birth weight. Opiate use can lead to premature labour, premature rupture of membrane, chorioamnionitis, meconium staining, pre-eclampsia, placental abruption, foetal wastage or foetal death. Other damaging effects are intrauterine growth retardation and toxaemia. There is a statistical association with an increase in Sudden Infant Death Syndrome (SIDS). However, this may not be due to the drug itself, but to the lifestyle attached to heroin use. However we must consider that illicit drug use can be associated with poverty, and poverty itself is associated with the increase in intrauterine growth retardation and preterm delivery. It is fair to mention that heroin is not the most dangerous illicit drug to the foetus (Fabris C, 1998), and that there are no known teratogenic effects described due to heroin (Schneider C, 1996). However heroin use can effect the mothers' nutritional status and susceptibility to infectious (urinary tract infections and sexually transmitted infections such as gonorrhoea, Chlamydia, syphilis, herpes, HIV)and also medical complications associated with intravenous use including abscesses, ulcers, thrombophlebitis, bacterial endocarditis, septicaemia and hepatitis.

Best Practice Recommendation

Durugs of abuse readily cross the blood brain and placental barriers. They carry risks for the developing foetus. These risks may include teratogenic foetal effects, (e.g. alcohol syndrome), and growth and developmental retardation. Young pregnant women should be advised to cease the use of licit (e.g. alcohol and nicotine), and illicit substances, where possible, once she knows she is pregnant.

Treatment of opiate dependence

Opiate Detoxification

In some circumstances detoxification may be considered the best choice. This will normally be in a mother who is stable on substitute therapy for some months, is living in a stable environment and is well motivated to detoxify. Attempting opiate detoxification in the 1st trimester may lead to an increased risk of spontaneous abortion, while if detoxification is undertaken in the 3rd trimester there is a risk of precipitating early labour. There have been reported cases of premature labour and intrauterine or early neonatal deaths, as well as other complications for the neonate if labour is precipitated early in the 3rd trimester, therefore dose reduction in 3rd trimester is not generally recommended although patients themselves may insist on such continued withdrawal. Many recommend that detoxification should not occur during pregnancy, but if it must, then it is best in the 2nd trimester, either as an inpatient or as an outpatient. However inpatient detoxification gives an opportunity for closer monitoring of withdrawal signs in the mother. The first 25% of detoxification can occur before admission. The main reason for such close monitoring is to ensure that an early labour is not precipitated. Methadone reduction in any one week should not exceed safe limits, and monitoring for foetal distress and signs of early labour should be carried out regularly.

Methadone maintenance treatment (MMT)

Methadone maintenance has been recommended by Finnegan and Methadone Maintenance Therapy (MMT), is associated with a three-fold increase of retention in treatment compared to

non-pharmacological treatments (Mattick 2002, Maura 2001). MMT has been shown to be a safe treatment in pregnancy. While methadone is the most widely studied substitute (Weber JC 1998) and MMT is the preferred treatment option, (Kandall S, 1999), other substitute therapies are undergoing evaluation. For methadone, there is no evidence of congenital malformations associated with its use.

Methadone Maintenance Treatment with psychosocial counselling is the treatment of choice for most pregnant opiate dependent women. It has been associated with more prenatal care, increased foetal growth, reduced foetal mortality, decreased risk of HIV infection, decreased rates of pre-eclampsia and increased retention in treatment. (Kandell 1977, Finnegan 1998, 1991, Svikis 1997). It can reduce illegal opiate use and may take the mother out of a drug seeking arena. Studies indicate that larger (i.e. large enough) doses of methadone result in less use of other drugs. Methadone is an opiate agonist and as such may impact on the use of other substances. Pregnancy may limit the amount of methadone which can be prescribed (Jarvis and Scholl, 1995). Treatment dosage is individually determined, low dose MMT is defined as <60mg daily and has not been found to be as effective unless the mother is very stable and able to tolerate dose reduction without returning to illicit opiate use. High dose Methadone blockage is 60-150mg per day. While methadone blood levels may be lower in the later stages of pregnancy, this is also true for hormones and prescribed drugs. As such, it does not necessarily follow than an increased dose of methadone will be required at this time, however it may be indicated if the woman is experiencing withdrawal.

Buprenorphine (a partial opiate agonist) appears to be well tolerated by the mother and her foetus, and is thought to result in a lower incidence of Neonatal Abstinence Syndrome (NAS) (Fischer 2000, Marquet 1997, British Dept. of Health 2001). This may be related to its high receptor affinity and low intrinsic activity. (Fischer G 2000). Buprenorphine induced NAS appears within 12-48 hours, peaks at 72-96 hours, and lasts for 120-168 hours as assessed in babies using the modified Finnegan scale, (1986).
(Johnson R 2003)

The NAS seen with buprenorphine comprises mainly of tremors, hyperactive moro reflex and a shortened sleep after feeding. (Johnson R, 2001). The level of buprenorphine and nor-buprenorphine in breast milk has been reported as so low as to have little or no effect on the infant (Marquet, 1997). Buprenorphine appears to be safe and effective in the mother, foetus and neonate. When buprenorphine and methadone are compared directly with respect to their effects on NAS, there is no statistical difference. There have been reports of some deaths associated with buprenorphine, but these are not associated in particular with pregnancy. The risk of death is thought to be lower than that of methadone, and it has occurred most often with intravenous injection and the concomitant use of alcohol and sedatives (EMCDDA 2005). In some European countries buprenorphine is the treatment of first choice, but its use is low in most of Europe.

Naltrexone- A new treatment option is possibly Naltrexone implants. Preliminary data are encouraging and indicate that naltrexone may be without risk to mother or developing foetus (Birnbach, 2003, Journal of clinical anaesthesia). Naltrexone implants showed better postnatal adjustment scores (e.g. 1 minute APGAR scores) for neonates than those on MMT (Hulse, 2004). However, more studies are needed to evaluate this treatment option.

Best Practice Recommendation

- Pregnant opiate dependent women are often best managed by substitute prescribing which also includes opportunities to provide other essential psychosocial interventions and obstetric monitoring and treatment, as part of a comprehensive package of care, biopsychosocial care of the young mother and her baby to be.

Structure and services needed

Young women's care providers are aware of the unique psychological and social needs of pregnancy. These women may be economically disadvantaged and engaged in the concurrent use of multiple substances. It has been noted previously that pregnant substance abusing women may not seek prenatal care early in pregnancy, and as a result would be more vulnerable to medical and obstetrical complications, (Ostrea and Chavez 1979, Finnegan 1991). However it has also been noted that when a service is provided they do attend, (Hepburn & Elliot, 1997). However they may not admit to their drug use at first presentation (Hampshire, 2000). Therefore all pregnant women should be routinely asked about all types of drug use including tobacco, alcohol, prescribed rugs, over the counter drugs and illicit drugs. All pregnant women are screened for HIV, HCV and HBV in Ireland with pre-test advice given to them. If a woman's partner is currently substance abusing, then this is considered to be a high risk situation as his continued abuse of substances may make his partner vulnerable to relapse to substance misuse. Therefore consideration shall be given to getting her partner into drug treatment at the same time. Sometimes a woman will disclose illicit drug use without a known history, and will accept drug testing during pregnancy.

Are drug screening procedures in place ?

Urine toxicology screening needs to be available where it is required. Informed consent from the mother is necessary, and the testing should be for medical, not legal, reasons. Decisions regarding child custody should be based on an assessment of the mother's parenting ability and on overall drug stability. If screening is for forensic reasons, then consent can still be taken, but the mother must be made aware of the reason for the screening procedure before it takes place. Any testing of neonates also requires the informed consent of the mother.

On other occasions, it is only when the delivered neonate is showing signs of withdrawal that disclosure of opiate or benzodiazepine abuse may occur. If symptoms are consistent with withdrawal, it is advisable to carry out a toxicology screen as part of the investigative process. However, drug screening of the baby does not distinguish between prescribed or illicit drugs or analgesia in labour. Neither does it prevent morbidity in the baby.

Urine immunoassay is the easiest method of drug testing, should this be required and it is generally accepted by the client group. Such testing will detect for the presence of most drugs within the previous 72 hours. Hair analysis is also effective for cocaine and opiate exposure, but reporting of results is slow and it is expensive. It is also inaccurate in giving the exact time when substance misuse occurred.

Service planning

Some points to consider when service planning includes:

- Provide education regarding the relevance of seeking treatment.
- When developing a specific service for this population it is important to advertise the potential for benefits in the area of child care and Social Service provision.
- Peer promotion- e.g., videotapes of previous clients experiences of the service.
- Parenting skills training, etc., can be offered in a non-judgemental manner.
- Consider also the education of other relevant professionals regarding treatment resources and referral pathways, making cross referrals and the sharing of advice and information easier. Methadone alone is not usually adequate for improving maternal and infant outcomes (Finnegan and Wapner, 1988).
- Aim to provide incentives to pregnant women to seek treatment, by avoiding punitive approaches and by positive reinforcement of treatment attendance. One study reported that pregnant drug users responded well to an escalating voucher schedule as a reward for abstinence from illicit drugs (Jones H, 2001).

Early engagement by a young mother-to-be is dependent upon her knowing that she is pregnant. It is also dependent on her motivation and her access to treatment locally. Referrals to drug treatment services can come from many sources including from midwives, health visitors, GPs, obstetricians, social workers, drug workers, or indeed self-referrals (Myles J, 1998). Access to services may originate at one of many sites- e.g. an STD clinic, A/E, pregnancy testing sites, GP clinic, health centres or an addiction clinic. The development of a special service can increase the number of cases identified as being at risk. In some areas a specific multi-disciplinary team (MDT) manages the cases- comprising of a Consultant Psychiatrist, registrar and nurse in Substance Misuse, Registrar in Obstetrics, a liaison midwife, a health visitor, phlebotomist, psychologist, counsellor and a prescribing doctor (may be a GP). If these clinics can be based at sites used by regular antenatal clinics this may reduce the stigmatisation attached to "drug services" (Wright A, 2001). The potential importance of a liaison midwife for co-ordinating services for drug-dependent women is now well established (Dawe, Gerada, Strang 1992). A drug liaison nurse identifies obstetric, addiction and childcare issues, and ensures that they are dealt with in a timely and co-ordinated manner by the multidisciplinary team, (Scully 2004).
It is recommended that a booking meeting with the Obstetric Services should be arranged as soon as pregnancy is confirmed, to ensure early identification of obstetric risk factors. In one study the premature delivery rate dropped fourfold when proper care was engaged with at an early stage and the rate of Neonatal Abstinence Syndrome in those children born to opiate dependent substance misusing mothers more than halved. A case manager should be identified that will assist in sharing information between agencies, discuss drug treatment options, consider child protection issues and any outstanding legal situations (The Methadone Briefing, 1996). The date of a second meeting should be decided then also, to ensure follow up is secure.

Best Practice recommendation

TREATMENT AIMS - (Day 2003)

1. Practical and emotional support is offered for pregnancy and early motherhood.

2. Ante-natal and post-natal use of multiple services is encouraged- obstetric, social services, medical and addiction services.

3. Obstetric care will involve an early booking visit and co-working to make the service accessible and user friendly. These women have potentially high risk pregnancies, and an obstetric led multidisciplinary care approach is appropriate.

4. Early planning for promotion of child welfare is an important part of service provision.

5. Support is offered to those who desire to be drug free via detoxification and supportive aftercare. However many opiate dependent women may need substitution prescribing.

6. Maintenance of an outreach arm which encourages sustained engagement and can facilitate harm reduction at a local level will supplement treatment services.

7. The period of engagement is for the duration of pregnancy and beyond, as required. A follow up meeting six weeks and at six months after delivery is helpful to ensure that optimal care for both mother and child is continuing as far as is possible

Treatment process

1. ASSESSMENT: Enquire regarding past medical, psychiatric and drug history (type, amount, duration, frequency, pattern and method of administration). The Maudsley Addiction Profile or similar instrument may assist in assessment, (Marsden et al, 1998). Relevant family history and knowledge of parenting may highlight potential parenting difficulties (history of domestic violence, foster care placement, police involvement). All women attending addiction services who are of child-bearing age should be asked regarding their sexual history, family plans and contraceptive use and be tested for pregnancy (with consent). They should also be encouraged to register with a local doctor.

2 INDIVIDUAL CARE PLAN: This will be developed with the case manager and will link with other members of the multidisciplinary care team and other agencies. If a woman does not already have a social worker, then she should be encouraged to give her consent for this to be arranged. If she does not, a care plan must include the consideration of whether significant harm is likely to be caused to the unborn child if social services are not involved and the mother to be lacks other social supports. If this is the case, then a multi-agency meeting is required so that the unborn child's risks are discussed. If there are still significant concerns, then it may be necessary to contact social services without her consent to ensure the safety of the child. The child can be registered as being at high risk and requiring extra familial support and child protection from birth, (See Appendix 3 for detailed check list for individual careplan).

3. DISCUSSION OF PLAN WITH CLIENT: ensure that the client is included in all careplanning and has an understanding of both the process and schedule of engagement with services .This should make clear that services are there to help the pregnant woman, but should also make clear what is expected of her.

4. MONITORING OF CLIENT PROGRESS: it is important to identify who is responsible for each aspect of care and to develop a protocol for deviations from the care plan. Multi-agency involvement should ensure that the entire woman's needs, emotional, psychological and medications are being met.

5. ONGOING CASE MANAGEMENT SUPPORT: this will involve regular multi-agency meetings to share information and agree responsibilities. The aim is to allow the client to achieve self-sufficiency and feel confident about her parenting skills, and perhaps to adjust to a new drug-free life. To enable effective breast feeding and the development of appropriate attachment, babies should be cared for by their parents wherever possible. The termination of treatment should be agreed with the mother, but she may need to remain involved with some of the agencies involved for some time.

6. REVIEW OF CARE PLAN: This ensures that all necessary steps have been taken, and also plays a part in an ongoing audit of service delivery, which aims to provide an evidence base for further treatment planning.

Continuum of treatment

The Continuum of treatment runs from assessment, through ante-natal care and delivery, and continues in the post-natal period until the level of involvement can be reduced. The process of assessing needs, and the development of interagency and interdisciplinary strategies to meet these needs is part of this continuum. Such a service should aim to be non-judgemental , non-punitive , culturally and linguistically sensitive and nurturing (TIP 2, Centre for Substance Abuse Treatment).

In addition to prenatal and postnatal care and the care of addiction and obstetric concerns, it also includes future family planning and ensuring that there is adequate care for other family members who may be very young or vulnerable. There should be access to inpatient and outpatient care as required, which can offer comprehensive medical services in a gender-sensitive way (TIP 2, as above).

Genetic counselling, reproductive counselling, smoking cessation programmes and the testing of mental capacity are other services which may be required at times, in addition to those already mentioned elsewhere.

Antenatal care

Initial screening includes physical examination (See Appendix 2) and history and appropriate blood tests. Encourage and facilitate continuous linkage with community addiction service throughout. MMT or Buprenorphine is a satisfactory treatment for opiate users. Progress should be known to both obstetrics and addiction services. This is generally understood from an early stage but may require written consent to share information between teams. Interagency meetings

are encouraged on a regular basis. In cases of co-dependence, proceed as above, and other drug withdrawals can be managed against the backdrop of Methadone Maintenance Therapy, and may be an inpatient procedure.

Mental health

Ensure that contact is made with previous professionals involved in the care of the woman, get an accurate history and develop a care plan. Continue any regular and necessary medications. The risk/benefit ratio of all currently prescribed psychiatric medication needs to be assessed as some psychotropic agents may carry risks of teratogenesis, (e.g. mood stabilisers such as carbamazepine) and other adverse effects during pregnancy and after birth, e.g. SSRIs and TCAs. Try to use well validated assessment scales and provide adequate structure, staff, limits and support. Behavioural management techniques may still have a place in the treatment plan. Link in with an outreach worker or community psychiatric nurse and ensure that counselling has been arranged. It may be useful for outreach to try to visit her home to see living conditions.

Intrapartum care

Labour and delivery

Substance abusing women may go into spontaneous labour and deliver uneventfully. However as there are higher rates of Perinatal morbidity and mortality in this group, and babies may need to be observed for NAS, there can be maternal morbidity also, and sometimes hospitalisation may be warranted on social grounds alone therefore it is wiser to deliver in hospital where there are facilities to deal with NAS if required. There have been concerns that clients may self-medicate with illicit drugs at the start of labour, confusing labour onset with withdrawal symptoms from illicit drug use. Any detailed history should include a recent drug and alcohol assessment, as the end of pregnancy is a high risk period for relapse and illicit drug use can precipitate early labour.

Pain management

Being aware of recent drug use is also helpful in determining analgesia for the parturition itself. Regional analgesia may be most appropriate (epidural, spinal, pudendal, other local), but depends on venous access. Opiate analgesia may be required, but higher doses are not always necessary.

Methadone and other substitute prescribing, and opiate analgesia are not the same and each should be considered independently. It is best to avoid the use of narcotic antagonists or agonist/antagonist combinations, as they may precipitate an acute opiate withdrawal. A central line is sometimes necessary, more so because Intra Venous Drug Abusers have sclerotic veins from previous IV drug use. The delivery method should be based only on obstetrical complications and viral status at the time of delivery. Observing universal precautions when checking blood and body fluids is advised throughout.

Interventions needed post delivery

Babies can go to a post-natal ward with their mothers unless the baby needs transfer to Neonatal Intensive Care Unit required for medical reasons. Breastfeeding should be encouraged unless the mother is HIV positive, or her drug use is chaotic. In which case there may be a risk of sero

conversion. Immunisation of the neonate will prevent vertical transmission of HBV. HCV is thought not to be transmitted in breast milk (Hepburn 2004).

The young mother needs to be encouraged to enrol or continue in an addiction treatment programme. The provision of advice and support in the area of childcare is especially useful- e.g. planning and education regarding how to breastfeed and knowing the risks associated with this. Collaborative help with child rearing practices or a discussion regarding approaches to discipline, crisis management and attachment and bonding issues may be welcomed. Access to parental support groups, child care and development education or family therapy can be arranged if considered useful.

It is practical to discuss family planning options in a tactful manner when appropriate. It may be necessary to organise access to and finance of family planning methods. Discuss health maintenance with the new mother– immunisations, check ups, Pap smears, mammograms.

For the new born, paediatric care should be organised before discharge and access to child care considered. Formal follow up arrangements should be explained to the mother, and early intervention programmes to benefit the baby are to be encouraged.

Some of the most useful interventions are very practical measures , such as 'Survival Related' services- i.e. drug free support , affordable housing, financial aid, ensure access to transportation, home management training- e.g., nutrition, budgeting, time management, food preparation, and access to free legal services.

Others may focus more on psychological interventions- assertiveness training, anger management, interpersonal relationships, personal care, image enhancement, sexuality issues, assessment of mental health needs of the family. The mental health of the mother should be monitored at 6 weeks post delivery and regularly thereafter -especially if there is a psychiatric history.

Nonpharmacological interventions

Contingency management involves clients receiving tangible incentives (money, privileges, goods or vouchers) contingent on providing evidence of treatment attendance and drug abstinence (giving drug free urine samples). This has shown good results both with and without substitution treatment as adjunctive treatment. (Stitzer and Higgins, 1995). It promotes drug abstinence in non-pregnant populations (Higgins, 1991. Silverman, 1996, Chutuape 1999), and also in smaller studies in pregnant drug using samples (Elk 1999 and Seracini 1997). Supportive psychotherapy and relapse prevention methods have been effective in identifying relapse triggers and developing strategies to avoid relapse, such as- peer support, learning principles, behavioural treatment, relaxation training, contingency contracting. Skills training has been associated with improved self-esteem and higher rates of abstinence. Also useful are individual counselling, lifestyle change training, self -help groups (Bolnick 2003).

Drug liaison midwife

Some countries have had very positive experiences from the development of drug liaison midwife services. These provide for highly trained obstetric nurses to provide treatment in an appropriate

setting for the monitoring of foetal growth and the mother's health. Antenatal and addiction care can be provided both within the drug treatment context and also at the local obstetric hospital. Such posts allow for the effective sharing of information between services so that both services can work together to ensure the safety of mother and baby, (Siney 1995)

Best Practice recommendation

- Comprehensive care planning should include management of all risks, pre, peri and post natally for mother to be and the foetus, and should include drug treatment, obstetric care and management of viral illnesses in a proactive way.
- Such careplanning needs to include the young woman at all stages of the process

Drug exposed neonates

Neonatal abstinence syndrome

Neonatal Abstinence Syndrome- this may or may not be related to a maternal dose of methadone, or to foetal gestational age or weight. Classic symptoms include restlessness, jitteriness, failure to feed, tremors, high-pitched cry, sneezing, sweating. These may not occur up to 5 days post partum for opiates and up to two weeks post partum for benzodiazepines.

Symptoms

1. CNS- irritability, hypertonia, hyperreflexia, abnormal suck, poor feeding, myoclonic jerks, tremulousness. 1-3% experience seizures.

2. GIT-diarrhoea and vomiting.

3. Respiratory system- tachypnoea, hyperpnoea, respiratory alkalosis.

4. Autonomic- sneezing, yawning, lacrimation, sweating, hyperpyrexia.

5. May get poor weight gain if hypermetabolic.

6. Skin mottling, diaphoresis, piloerection, volume depletion, aspiration.

7. Delayed effects- subacute withdrawal- restless, agitated, irritable, poor socialisation , for up to 6 months.

8. There is a reported increased incidence of increased risk of Sudden Infant Death Syndrome (SIDS) babies born to drug dependent mothers.

9. Behavioural and developmental problems can occur later on but have not been studied adequately when controlling properly for environmental and other factors, although the available evidence suggests that babies born to mothers on methadone maintenance have caught up on any developmental delay by their 1st birthday.

10. Some infants will show minimal effects of opiate withdrawal.

The use of neonatal assessment charts can help to standardise the evaluation of the newborn's clinical status. (Wright A, 2001). It occurs in 60-80% of heroin exposed infants and onset is usually within 72 hours, though it can be delayed up to two weeks, especially where benzodiazepines are involved, and can be fatal if untreated. Premature babies are prone to having a less severe form, due to different levels of CNS maturity. Methadone dependent babies have more frequent and more severe symptoms, but methadone is still recommended as a treatment during pregnancy in risk/benefit analysis.

Treatment of neonatal abstinence syndrome

NAS may be considered a diagnosis of exclusion, so we must rule out other causes. A comprehensive history taken in a sensitive manner can give us a history of substance misuse. Sometimes a toxicology screen can yield useful information. (Rosen 2002)

Treatment of the neonate should be primarily supportive (swaddling, small feeds, high calorie formula feeds, observation of sleep, weight, temperature and symptom change- (Coghlan 1999))as unjustified pharmacologic administration will prolong hospitalisation (AAP, 1983).

Most favour a morphine derivative as a treatment option for the neonate. (Theis J 1997, Johnson K 2003). A study in Glasgow showed morphine to be effective. Phenobarbitone has also been widely used, and may be most appropriate when dealing with polydrug abuse (Finnegan 1990, Finnegan 1984). Opiate withdrawal symptoms require immediate pharmacotherapy.

In the case of methadone based abstinence syndrome Neonatal Abstinence Syndrome starts later and lasts longer than it tends to do for heroin. CNS (central nervous system) symptoms are prominent. Breastfeeding is safe if HIV status is negative and the mother is not abusing other drugs. Treatment for methadone abstinence syndrome is as for heroin abstinence syndrome.

Cocaine and amphetamine exposed babies usually have self-limiting symptoms, and rarely need medications. If they do need sedation and phenobarbitone may be considered. If cover for seizures is needed, then a benzodiazepine and phenobarbitone can be considered.

Cocaine abstinence syndrome

Cocaine abstinence is not always encountered in babies born to cocaine using women. However it can lead to irritability, poor sleep, tremors, hypertonia, lability of mood, seizures and abnormalities of tone, posture and movement, (Chiribaga, 1999). Most babies respond to supportive measures but phenobarbitone treatment for the neonate may be considered especially where benzodiazepines or polysubstance misuse is involved.

Assessment and treatment of infectious diseases during pregnancy, and a consideration of mother to child transmission (vertical transmission)

Universal precautions to prevent the spread of viral illnesses should be followed for everyone. Additional precautions are only required when a woman or child presents with a communicable

disease, e.g. TB, measles or chickenpox. Healthcare workers at risk of contact with blood, body fluids or human tissue should be immunised against Hepatitis B.

At the initial work up, try to assess the degree of risk of viral illnesses. Ask re sexual practices, sex work, oral and anal sex, partner's drug use history, blood transfusions, TB, STDs. Get a complete review of symptoms- see Appendix 2.

If HIV testing comes back with a positive result, then other lab tests can be carried out - HIV culture and antigen assay. CBC, differential, platelets. CD- or T-cell counts.

Targeted or selective testing for HIV status during pregnancy has not proved to be effective, and so routine antenatal testing for pregnant women should be offered, with an opt out option for the woman. The uptake of this offer tends to be very high, and should help to keep the rate of vertical transmission of HIV at a low level. It is important to note that there remains a risk of contracting HIV even if the person does not inject or is not involved in the sex work industry and that is why testing is routinely offered to women. All discussions of her condition, management, test results and care of the infant must be undertaken in confidence. If an HIV positive result is received, then this information is passed to the woman and she should be referred to both adult and paediatric HIV services. If she refuses to attend these services, then this situation needs discussion with both services, and clinical evaluation and further investigations are carried out as per their advice, if we are allowed to do so by the woman. However, disclosure to and testing of those others at risk (i.e., those connected to the mother) must also be considered. If a woman decides not to disclose, then this should be discussed by the multidisciplinary team. Generally, disclosure can be achieved through supportive counselling. If not, then advice can be sought from local specialist HIV services, and guidance on the legal situation from the medical body in that jurisdiction. Breaking confidence should be a last resort.

If sero conversion occurs during pregnancy, there is a higher risk of vertical transmission due to high viral loads. For these women, who continue to inject during pregnancy then repeated tests as indicated should be offered. The overall risk of transmission in women not receiving antiretroviral therapy (ARV), varies from 20-40%, but is much lower at 1-8% for those who receive treatment .Up to 75% of this transmission occurs in the intrapartum phase, the rest in utero. The best way to reduce risk is to use antiretroviral treatment, antenatally and for the infant. In selected cases, elective Caesarean section delivery can be beneficial, and avoidance of breastfeeding is advised.

Specialist infectious diseases services need to be involved in the decision as to whether to commence ARV therapy, this will depend on staging of the HIV disease, CD4 count and viral load, (Clinical Manual for management of the HIV- infected adult, 2006 edition), and guidelines such as the British BHIVA guidelines.

PROVIDE MEDICAL TREATMENT- consult with specialists. If CD4 count <200mm3 , place on an antiviral agent or give appropriate prophylaxis. Consider AZT triple therapy. Evaluate and aggressively treat any other conditions. AZT triple therapy is usually combined with the selective use of caesarean section and the avoidance of breastfeeding. A decision to use potent antiretroviral agents in pregnancy must be balanced against the potential for toxicity, for the foetus and the mother. Caesarean section may be indicated in certain unstable patients with HIV disease were adequate ARV treatment has been achieved and in certain situation when managing

women and their babies who are co-infected with HIV and HCV. The management of HIV and HCV positive women who use illicit drugs is decided in consultation with infectious diseases services, obstetric services and addiction services. Each can take a lead role in their area of expertise, and collaborate to ensure that all treatment approaches are compatible. There is no present guidance on HCV alone to prevent vertical transmission, but it is wise to reduce invasive procedures during pregnancy and to reduce time in the birth canal by active management of labour.

Best Practice recommendation

Neonatal abstinence needs to be assessed using appropriate scales, (e.g., modified Finnegan Scale) and managed with supportive measures and medications as appropriate.

POST PARTUM CARE- Breastfeeding is not recommended where the mother is HIV positive, but teams should encourage other forms of mother-child bonding. Educating and support the mother regarding the special needs of the infant. Reinforce a safe sex approach and offer family planning advice. Organise a comprehensive follow up plan. Link the mother with an HIV/AIDS support group for advice. Try to ensure her involvement in an addiction service's programme.

NEONATAL CARE- This will be provided by the paediatric team. Post exposure prophylaxis for the infant will depend on the timing of maternal diagnosis of HIV, the level of maternal viraemia near delivery and the duration of the rupture of the membranes. Treatment commences when indicated immediately after delivery and continues for 4 weeks. Advice regarding the risk of breastfeeding is also important to give clear information to the mother. HIV exposed infants should receive all the normal childhood immunisations. All should receive the MMR and hepatitis B vaccinations. BCG vaccination should be deferred until after the 6 week HIV PCR is confirmed negative. (Much of the information above has been taken from the Rainbow Clinic Document, see reference at the end of this chapter)

For Hepatitis C, if diagnosed during the pregnancy, it is not treated. Ribaviron is teratogenic , and while Interferon is less dangerous, it is still contraindicated.
Co-infection with HIV and Hepatitis C increases the risk of Hepatitis C transmission from 5-7% to about 20%. It is reasonable to offer women who are HIV and HCV positive, with evidence of ongoing viral replication (positive HCV PCR), an elective caesarean section.

For Hepatitis B, one has to weigh up the risk of acquiring Hepatitis B versus the risk of an adverse reaction to the vaccine. It is probably wise not to vaccinate during the 1st trimester due to possible teratogenic effects. Post delivery immunisation will protect the neonate.

For Syphilis. If a pregnant woman has early syphilis, then the baby has a 70-100% chance of being positive. While one third of these will be stillborn, for the survivors, congenital syphilis has many tragic stigmata. During pregnancy , the treatment for syphilis is Procaine Penicillin depending on local resistance patterns. If she has a penicillin allergy, then the antibiotic of choice is usually Erythromycin. Doxycycline is contraindicated in pregnancy, as it discolours the teeth.

Genital Herpes, during pregnancy, is categorised into first episodes or recurrent episodes. An accurate clinical classification is difficult.

1st episode- if 1st or 2nd trimester, aim to manage in line with the clinical condition, using Acyclovir . Vaginal delivery should be anticipated. Continuous Acyclovir in the last 4 weeks reduces the risk of recurrence at term.

1st episode, if during 3rd trimester- if diagnosis confirmed, consider caesarean section, especially if symptoms after 34 weeks gestation. If vaginal delivery necessary, use Acyclovir.
Recurrent episodes - vaginal delivery is acceptable if there are no lesions present. Acyclovir reduces viral shedding, but does not eliminate it. If uncertain regarding this, then do a caesarean section.

The rate of Chlamydia is increasing, and carries a risk of conjunctivitis for the neonate, and future infertility for the mother. In pregnancy, treat with Erythromycin, amoxicillin or Azithromycin. The latter is contraindicated in women who are breast feeding.

In non-European ethnic groups, we can see a higher rate of conditions like chancroid, tuberculosis and Lympho-Granuloma-Venereum.

Best Practice recommendation

Viral and bacterial infections transmission to the neonate needs to include active management of infections for the mother and the foetus during the pregnancy, during labour (by Caesarean section) if need be and in the immediate post natal period.

Standardised training for professionals

It is worthwhile to aim to offer training to all relevant healthcare staff (Myles J). This will increase the ability to identify all substance misusing pregnant women at the first visit. Training for all service staff ensures a thorough understanding of the issues and the needs of this group of vulnerable young people (Centre for Substance Abuse Treatment, TIP 2). This can be achieved through interagency co-operation in addiction education programmes, maternal and child health services, child welfare, and those involved with the juvenile justice system. This should improve the knowledge base, and help to develop guidelines and protocols. Studies indicate that women will discuss their drug, alcohol and tobacco use with their physicians (Fleming 2002, Fiore 1999). The role of the obstetrician, or GP, or other healthcare professional, as regards their drug use, need not be on the periphery and addiction services can play an important consultative role.

While drug abstinence may be the ideal, harm reduction is the more achievable interim goal for many, and it is important for all professionals to be aware of this. Brief 2-5 min interventions at the clinic have been shown to be effective (Fleming 2002, Fiore 1999). In the context of a busy clinic, this may be the most realistic first step when considering the aim of training. Knowing how to screen for drug use using standardised screening tools, e.g. AUDIT, CRAFFT, DUSI etc., (See chapter on Screening, this volume), is part of the first step in delivering quality healthcare to those who need it. Making service users aware of what services are available, and how to access these services, is a simple but effective method of improving the situation immediately. Information leaflets about toxicology services, local drug clinics, liaison nurses, outreach workers etc. can be invaluable. Short courses which aim to impart brief counselling skills to professional staff who work in non-specialist settings have been shown to make an impact.(Potter B et al, 2003 Obstst Gynae Clin N Am)

Best Practice recommendation

- Training of primary care and specialist staff in management of drug misusers and the basic obstetric care needs to be undertaken for all disciplines that may have a role in managing pregnant substance abusing mothers and their babies.

APPENDIX 1-THE PHYSICAL EXAMINATION

1. Physical examination- Height, Weight, Blood Pressure, nutritional status. Check skin for signs of IVDA (intravenous drug abuse), and liver for hepatomegaly.
2. Skin- infections, abscesses, herpes, pyodermas, icterus, bruising, thrombosis.
3. Dental- pyorrhoea, abscessed cavities, hygiene.
4. Otolaryngeal – rhinitis , excoriation of nasal septum.
5. Respiratory- wheezes, rales.
6. Cardiovascular- blood pressure, cardiac arrhythmias, cardiomyopathy, endocarditis.
7. Gastrointestinal Tract- hepatomegaly, hernias.
8. Breast- Nipples, breast vein used for injection.
9. Musculoskeletal- pitting oedema, brawny oedema, distortion of muscular landmarks due to subcutaneous abscesses.
10. Lymphatic- lymphadenopathy, abscesses.

APPENDIX 2- PHYSICAL EXAMINATION IF HIV+ IS SUSPECTED.

1. Rashes, bruising, bleeding. Fever, chills, night sweats. Fatigue, exercise intolerance, dyspnoea, cough. Anorexia, nausea, vomiting, odynophagia, diarrhoea.
2. Vaginal discharge, dysuria, abdominal pain. Headache, visual changes, memory loss, depression, pasaesthesia, weakness. Weight loss, poor weight gain.Then , carry out an examination to look for-
3. Skin- track marks, seborrheic dermatitis, folliculitis, purple lesions (Kaposi's sarcoma- this really is very rare in women).
4. Head and Ear, Nose and Throat- retinitis (CMV), cotton wool spots, haemorrhages. Mouth- ulcers, hairy leukoplakia, thrush (Candida), purple lesions.
5. Nodes- lymphadenopathy.
6. Chest- dullness, rales, rubs, (PCP, TB, CMV). Murmurs, gallops.
7. Abdomen- hepatomegaly , splenomegaly.
8. Genital- ulcers, chancroid, condylomata, (HPV, syphilis)
9. Neurological- cognitive deficits, cranial nerve defects, sensory or motor changes, weakness (HIV, toxoplasma , Cryptococcus).

APPENDIX 3 - INDIVIDUAL CARE PLAN:

1. In drawing up a care plan, a Keyworker should be identified, and also which services need to be involved- e.g. maternity care, primary care, addiction services, family support.
2. Individualised timetables for antenatal checkups. One study suggests bimonthly visits up to 32/40, then case discussion followed by weekly visits (Bolnick, 2003), but visits should be organised as appropriate.
3. Ultrasound scans can monitor foetal growth and promote maternal bonding, but we already know that they have a risk of low birth weight and so ultrasound scanning gives little extra benefit.
4. Ensure proper dating of the pregnancy.
5. Make clear the contact details for on-call staff who are available to contact in an emergency 24/7.
6. Ensure viral / STD screening is discussed with the woman during the gestation. Testing for HIV, HCV and HBV needs to be undertaken at the earliest opportunity.
7. If her history indicates that she is in a high risk group, carry out a TB check at 1st visit.
8. Make accessible all information and education re- nutrition, childbirth, breastfeeding, analgesia. The offer of a visit to the maternity ward early on in the pregnancy, to reduce fear and anxiety, has also been found helpful by some pregnant women.
9. Try to ensure continuity of care staff. Aim for "one-stop shopping".
10. Aftercare involves promoting health of children. Encourage clients to remain drug free if they already are, and help link them in with appropriate support groups. Role model enhancement and advice re contraception are practical ways to continue supporting the mother.
11. Continuum of care- this will involve multi-agency co-operation, often with multi-disciplinary teams.
12. Follow up is important as some chemically dependent women lose interest in attending services when pregnancy is over. This has implications both for the parent and the child. Some services aim specifically to support the mother and child during this period of time, and these can be part of an obstetrically led multidisciplinary team, (VIP, Tackling drugs in Scotland).

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Conclusions and Recommendations

Evangelos Kafetzopoulos

The following conclusions and recommendations were drawn from the corresponding chapters of this book, written by the Treatment Working Group of Pompidou Group of Council of Europe. They are based on literature reviews and guidance, as well as on a consensus between all members of the Group. Some treatment principles and interventions covered by these reviews have been tested in clinical and community settings using the most rigorous research methods. Additional interventions have been studied with techniques that meet other recognised standards. The recommendations presented here are broadly supported by a growing body of research.

Definitions

To avoid misunderstandings and confusions it is important to use a common set of terminology, e.g. key definitions provided in this book. Language used to describe drug problem sometimes is based on ideological rather than scientific approach, influenced by the social norms and values rather than scientific and professional approach. This could create misunderstandings and confusions. It is recommended to make efforts to agree and then use the common professional language as much as possible free of emotions, myths and ideology.

Epidemiological basis

Drug taking among young people across Europe is evolving constantly and needs to be monitored closely. The monitoring systems should be created in harmonized way on various levels (local, regional, national, international). The common methodology of monitoring gives the opportunity of achieving comparable pictures of drug problems and responses, increasing the analytical usefulness of data collected. Conclusions and recommendations and planning based on such an approach are usually much more in-depth and much better justified.

Careful assessment at the local level is needed. It is particularly important to include in the local assessment the issue of potential client needs and expectations. The local level assessment is particularly important in terms of coordinating, planning and funding.

Drug problems should be seen in the context of other adolescent problems and requires a comprehensive response. Especially when drug treatment is concern, the context of other problems plays a crucial role. When the drug problem is involved in other problems like alcohol misuse, unemployment or antisocial behaviours, it is not enough to provide the drug treatment only. Without assistance of sorting out connected problems the drug treatment would be ineffective. Therefore it is important to have knowledge on the other adolescent problems and their interrelationships with their drug problem.

Decision makers should take into account the epidemiological background and plan the treatment response accordingly. It is important is to take into consideration the potential clients point of view, when planning to address their needs.

International co-operation in the field of monitoring of trends in drug phenomena and response is recommended in order to track the changes in drug and adolescent policy on an international scale. International experiences sharing seems to be more affective if it is based on common picture of drug issue generated by international monitoring system.

Risk and protective factors

In planning care and treatment services target groups should be defined according to broad demographic concepts. A target group can be defined by age, sex, race, geography (neighbourhood, town, or region), and institution (school or workplace).

Policy makers and care professionals should assess levels of risk, protection and substance abuse for those target groups. Risk factors increase the likelihood of substance abuse, and protective factors inhibit substance abuse in the presence of risk. Risk and protective factors can be grouped in domains for research purposes (genetic, biological, psychological and behavioural, social and environmental) and characterized as to their relevance to individuals, the family, peer, school, workplace, and community. Substance abuse can involve marijuana, cocaine, heroin, inhalants, ecstasy, amphetamine, alcohol, and tobacco, as well as sequences, substitutions, and combinations of those and other psychoactive substances.

Care programmes and policies should focus on all levels of risk, but special attention must be given to the most important risk factors, protective factors, psychoactive substances, individuals, and groups exposed to high risk and low protection in a defined population. Population assessment can help sharpen the focus of prevention and treatment.

How to establish contact with young people who use drugs

Substance misuse services can use communication resources available to general public (mass media, festivals, etc.) and more especially telematics (internet, mobile communication, etc.), to provide relevant and accurate information on drugs.

Peers and families should have easy access to relevant information and receive adequate support.

Primary carers as well as educators are the first line of contact with young drug users. It is therefore important that they should receive training in mental health and drug related issues. Primary care as well as educators should be trained to use motivational interviewing as well as outreaching techniques to establish a working relation with the youngsters who use drugs.

Screening and assessment

Screening efforts should be primarily targeted at groups of the adolescent population with an increased risk of developing problematic alcohol or drug use. These groups include school drop-outs, adolescents with behavioural or psychiatric problems, homeless and runaway adolescents, adolescents in the juvenile system, young people with a family history of alcohol or drug abuse, young people at emergency settings, and young people who frequently visit bars, dancing, discotheques, and rave parties.

Use brief (5-25 minutes), reliable and valid screening instruments (questionnaires, interviews) which are suitable to detect alcohol and drug use problems in adolescents. Screening instruments can be divided into level 1 and level 2 screeners: (1) tools involving very little time and effort (approx. 5 minutes): AUDIT, CRAFFT, and POSIT-Substance abuse scale, and (2) tools offering more in-depth screening (max. 25 minutes): POSIT, and DUSI-A, (See chapter 5 in this volume).

Laboratory tests (e.g., urine, blood, saliva, hair) have limited usefulness in screening and assessment.

Collateral information from parents, guardians, other family members, and friends or past records are a useful adjunct to corroborate and expand the information obtained through the adolescent himself.

If the result of screening for alcohol and drug use problems is positive or inconclusive, the adolescent should receive a more comprehensive assessment and evaluation. Recommended assessment instruments for intake and monitoring pre-post treatment patient changes include the Teen-ASI, ADAD, PEI, and GAIN. Recommended diagnostic interviews for use in adolescents include the DISC-IV and the ADI.

It is recommended that all adolescents entering mental health services or the juvenile justice system are screened for substance use disorders. Dependent on the type of setting and the available time and resources, level 1 or level 2 screeners should be used (see above).

It is recommended that all adolescents with a positive screen, who enter mental health services or the juvenile justice system, receive a comprehensive assessment to (1) assess the nature and severity of their alcohol and/or drug use problems, and the level of social and psychological functioning, (2) establish a diagnosis, and (3) develop a treatment plan.

Treatment and planning

Drug dependence has biological, psychological and social causes, antecedents and consequences, and tends to have a chronic character. Therefore, good treatment practise should take each of these components into account, and should provide a sufficient continuum of care (i.e. monitoring following termination of treatment; aftercare).

The treatment process must consider cognitive, emotional, physical, social and moral development. Treatment for adolescents must also take into account gender, ethnicity, disability status, stage of readiness to change and cultural background as well degree of addiction (degree of psychoactive substances involvement).

There are several psychological interventions for addiction with proven effectiveness in the scientific literature. These include brief interventions, motivational interviewing, cognitive behaviour therapy, community reinforced approach, and certain types of intensive family therapy (e.g., multi-dimensional family therapy; MDFT). Addiction professionals should make more use of these interventions, and incorporate where necessary pharmacotherapy by a physician. There are several pharmacotherapies for addiction with proven effectiveness in the scientific literature. These include naltrexone, acamprosate, disulfiram, methadone, and buprenorphine. Addiction

physicians should make more use of these medications for the various target groups, preferably in combination with psychological interventions and social support.

Long-term (max. 3-6 months) inpatient treatment should only be provided to a drug dependent adolescent if he/she did not sufficiently benefit from intensive outpatient treatment. Highly confrontational interventions (e.g., certain types of encounter groups; "boot camps") are not effective and may even be harmful. They should, therefore, be avoided.

Continuity of care and monitoring after treatment is recommended. Regardless of the type of intervention or the setting in which treatment takes place, care can be seen as a continuum starting with contact, screening and assessment, through the stage of counselling and treatment to continuing monitoring care and support.

Families should be involved in the treatment process of adolescents where it is possible and treatment should be as intensive as it is necessary to help the young client. A therapist who practices a family-based approach should have formal, professional training in family therapy.

Policy advisors and policy makers should plan services with a view to ensuring easy accessibility of the treatment system for young people. A good treatment system is not only cost effective, but should also be sufficiently accessible for dependent patients who need treatment but are without treatment. This includes patients dependent on illicit drugs, but also those addicted to alcohol, tobacco, inhalants, and psychoactive medications.

Comorbidity of substance abuse: diagnosis and treatment implications in adolescents

Professional assessment of comorbidity is important in achieving the most effective treatment in adolescents. An integrated approach to treatment of comorbid psychiatric disorders and substance abuse in adolescence is critical to treatment success. Treatment programmes should preferably have an integrated approach to both disorders, including pharmacotherapy and psychosocial interventions using the most effective treatment modalities available, including both behavioural and medical therapies, along with close supervision and monitoring. Monitoring patient motivation and target symptom response as well as behaviour change and psychosocial functioning throughout treatment is recommended. Regular monitoring is important in order to evaluate the efficacy of therapy, redefine treatment goals, and detect potential side effects of medications.

Since substance abuse is a risk factor for suicidal behaviour the suicide risk should be assessed. Inpatient psychiatric care needs to be provided for those adolescents that experience severe co-morbid disorder.

Pregnant Drug Users

There is a need to prioritise pregnant drug users for easy assessment and inclusion into treatment programmes and care throughout the pregnancy and in the neonatal period to optimise treatment effects and to ensure the delivery of treatment goals. Such treatment should be provided by a comprehensive multidisciplinary treatment approach to include social services, psychological and medical care.

It is recommended that significant others such as family and partners are included as appropriate throughout the care and treatment of the young pregnant drug users. Follow up of the newborn and neonatal is required to ensure that the child gets appropriate interventions and support.

Evaluation of the programmes should be included in the programme delivery.

Summary

Piotr Jablonski

Since the beginning the leading principle of the Pompidou Group (PG) has been to combat abuse and illicit trafficking in drugs. PG supports and contributes to the international and national efforts in this field as well as focuses on quality of European drug policy. Through linking policy, practice and science PG promotes evidence-based approaches, effective law enforcement and judicial measures, innovative drug prevention and drug treatment models as well as ethical and human rights issues.

The bridging role of PG in the scope of European drug cooperation enables policymakers and experts of both the European Union and non-EU member states to participate in open, non-political debate, exchange practical and scientific experience and promote standards of good practice. Free, open forum for debate serves to highlight new developments and identify new challenges and needs. In order to fulfil its mission PG has established six expert committees called 'Platforms'. One of the Platforms is dedicated to treatment problems.

There is a generally shared consensus among European countries that consumption of drugs poses a number of serious problems to society, particularly in relation to individual and public health.

There are thousands of drug users in Europe. Although data on the subject are widely available, they may vary significantly depending on various factors.

Opposite trends in local and regional regulations, political and cultural limitations and different patterns of consumption make it difficult to formulate general and the only true statement on the drug approach in Europe. However, there is a general consensus that drug consumption among teenagers not only poses a threat to the future generations but also requires immediate response to the current situation.

This publication prepared by a group of experts is addressed to a wide range of recipients both policymakers and persons directly involved in drug treatment.

The platform undertook to tackle the issue of care for minors due to the increasing scale of the phenomenon as well as the health and social consequences. It has been considered a common problem for all European countries.

In the early stages of works there was a problem of different understanding and use of vocabulary, definitions and terms used by participating platform experts in describing drug treatment phenomena and methodology. The problem was solved through including into this publication a chapter on key definitions.

Epidemiological data provide a basis for the estimation of the scale and range of the phenomenon. Following trends and patterns of consumption makes it possible to assess treatment needs and in consequence planning remedial actions at different management levels ranging from local through regional and national to international. Planning and implementing successful care for drug-endangered individuals requires identifying the drug problem among

other social problems and searching for remedial actions based on recognizing the broadly understood problem of use of psychoactive substances such as tobacco, alcohol and pharmaceutical drugs.

Another element of planning successful treatment actions is the evaluation of factors helping or preventing young people from using addictive substances. Referring, in treatment programmes, to both risk and protective factors related to biological, psychological and social and environmental aspects allows for a better diagnosis and planning therapy, which must always include individual conditions and capabilities of individuals benefiting from outreach services.

In order to reach a significant influence on the behaviour of drug users one must build contact with these persons. It is of vital importance to create access paths to individuals remaining outside the outreach system with a view to encouraging them to use available outreach services. Apart from conventional actions media of mass communication should be taken advantage of. **Information programmes, counseling** and outreach programmes should make use of the Internet and mobile communication. Using modern technologies of making contact, apart from outreach and motivational techniques, should also be the subject of training courses for outreach and therapy personnel.

Adopting advanced screening and assessment techniques allows for supporting the treatment process with a severity analysis of drug problem. It provides diagnoses adequate to the needs and facilitates planning therapeutic process based on collected information.

Screening techniques related to consumption of psychoactive substances should be used not only in the case of contact of young people with the drug outreach services but also in other life situations that may be linked to drug use such as entering psychiatric treatment system or contacts with juvenile justice system.

Treatment and planning require applying approaches including chronic and complex nature of addictions. Planning and implementing treatment should also include biophysical, cognitive, emotional, moral and social conditions and aspects of drug use.

Existent forms of therapy should be based on techniques and forms of scientifically proven effectiveness. Such instruments include brief intervention, motivational intervention, cognitive behavioural therapy, types of family therapy. In the case of severely addicted individuals long residential treatment proves successful. All forms of treatment should use pharmacotherapy as an action increasing chances of reaching permanent improvement of health.

It is recommended that drug therapy be continued and monitored both in progress and after completion. Therapeutic process goes from the contact moment through screening and assessment, counselling, treatment, result monitoring and providing support. Active participation of policymakers in planning and development of outreach services availability is necessary for all of these elements to be implemented. These actions should be accompanied by the process of training professional personnel dealing with drug therapy.

An integral part of treatment process should be detection of co-morbidity related to substance abuse. Early and correct diagnosis of psychiatric disorders coinciding with consumption of psychoactive substances as well as adequate implementation of remedial actions results in higher

treatment success rate. Early and correct diagnosis of psychiatric disorders also plays a preventive role in persons that may make drug-related suicide attempts.

Outreach services are starting to include pregnant drug users. Drug treatment programmes should broadly include their life and therapeutic needs. Comprehensive drug treatment must comprise components related to medical, psychological and social interventions. Continuity of care for this group of patients should translate into continuity of care for young mothers and their newborn children.

Members of the "Treatment" platform and the authors of this publication recommend providing access to modern and well-documented by research and good practice forms of outreach services addressed to young drug users as an effective tool of reducing individual and public health threats.

Outreach process addressed to **young people** and their families is also a form of developing preventive actions that translate not only into the reduction of threats directly related to consumption of psychoactive substances but also limitation of drug-related social nuisance as well as the improvement of public safety.

Consumption of drugs by **young people** is a common problem of all European countries. The development of outreach and care services for drug users calls for well-coordinated actions to be taken by international institutions and national governments. Planning and implementing the above should include opinions of researchers, professionals and anti-drug policymakers.