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PSYCHOLOGICAL BASES OF THE PREVENTION OF DRUG ABUSE

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Drug consumption has become an important social problem in recent years throughout the developed world. One way of dealing with and containing this problem is through prevention. Psychology has always had a notable role in the prevention of drug consumption, in relation to understanding and explaining this behaviour based on psychological processes – especially why some people use drugs and others do not – and to developing theories and models of consumption behaviour; moreover, its role in the development of effective preventive and treatment programmes has been crucial. Drug-use behaviour is of great relevance for psychology given its high prevalence and the serious problems (physical, psychological and social) it causes in many individuals. The results obtained with drug-dependence prevention programmes are good, though the extent of their implementation does not always reach the desirable level.
Key words: *Prevention, drugs, psychology, theory.*

El consumo de drogas se ha convertido en un importante problema social en los últimos años en todos los países desarrollados. Un modo de contener o atajar este problema es a través de la prevención del consumo de drogas. La psicología siempre ha tenido un papel destacado en la prevención del consumo de drogas, tanto para comprender y explicar esta conducta desde los procesos que estudia la psicología, a la realización de estudios para explicar por qué unas personas consumen drogas y otras no, como elaborar teorías y modelos para explicar e intervenir en los consumidores y, de modo especial, en el desarrollo de programas preventivos eficaces, como de tratamiento. Esta conducta, la del consumo de drogas, tiene una gran relevancia para la psicología por su alta prevalencia y los graves problemas que acarrea a muchos individuos (físicos, psicológicos y sociales). Los resultados obtenidos con los programas de prevención del consumo de drogas son buenos aunque no siempre su implantación llega al nivel deseable.
Palabras clave: *Prevención, drogas, psicología, teorías.*

PSYCHOLOGY AND DRUG USE. WHY DO PEOPLE USE DRUGS? WHY SHOULD WE PREVENT DRUG USE?

On attempting to explain the use of drugs we would do well to begin by defining psychology so as, on the basis of that definition, to determine our role. A simple definition of psychology would be the science that studies behaviour and mental processes (Atkinson, Atkinson, Smith, Bem and Nolen-Hoeksema, 1996). To put it perhaps more clearly, we might say that psychology is the science that studies human behaviour, in order to understand observable acts and behaviour, mental processes (cognitions, sensations, thoughts, memory, motivation) and all those processes that permit us to explain behaviour in particular contexts. Therefore, it focuses on the observable (behaviour) and on mediating (mental) processes, but without neglecting to consider social processes (culture, socialization, social system) and biological ones (genetic, perinatal, postnatal, illnesses), as long as these permit the explanation of human behaviour.

A behaviour such as drug use will require a bio-psycho-social explanation, or rather a socio-psycho-biological one, since the most important factors, at a quantitative and qualitative level, for explaining whether a person consumes or not in a given society, such as ours, are the social ones, followed by the psychological ones, and thirdly, the biological ones.

The study of observable human behaviour has been made by means of all we know about learning and psychological processes. Within the field of basic psychological processes research has covered the processes of how we perceive and feel, attention, memory and intelligence, how we learn, how we think, the role of cognition, communication, social influence and social cognition, personality, sometimes as the final result of several of the previous processes, together with others such as consciousness. It has also examined the individual's developmental process and social behaviour.

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In relation to learning, important work has led to the discovery of processes of classical conditioning, operant conditioning and social or vicarious learning. This has been of enormous relevance, since the principles of psychology can currently be classified in two broad groups. On the one hand, those derived from the psychology of learning, and from which have been developed powerful and effective treatment techniques for a range of disorders, and on the other, those derived from the study of cognitive processes, which has revealed processes of thinking and other internal processes that explain behaviour. Techniques based on cognition have also been, and continue to be, of great importance (attributional, cognitive, problem-solving techniques, and so on). The principles to which we refer are those employed in the prevention of drug dependence, and which, given the lack of space and psychologists' familiarity with them, we shall not elaborate upon here, though they are discussed in a wide range of publications in application to drug use (e.g., Becoña, 2002).

There are three main reasons why we should prevent the use of drugs, especially tobacco, alcohol and cannabis, in children and adolescents. The first, and most obvious, is that if we can stop children and adolescents smoking cigarettes or cannabis and drinking alcohol abusively, we shall avoid their becoming addicts or abusers in adulthood. The second reason is that today we know that if people do not consume they will avoid physical illnesses directly related to drug use, such as lung cancer, cirrhosis of the liver or cardiovascular disorders, and we shall also reduce the probability of their presenting mental disorders in adolescent and adult life. It has been clearly shown that the consumption of drugs is associated with a wide range of mental disorders, some of which involve great suffering, such as depression, anxiety disorders or schizophrenia (Becoña, 2003; Comisión Clínica, 2006; Regier et al., 1990). And thirdly, we are aware that the use of alcohol and tobacco often leads to the consumption of illegal drugs, such as cannabis, heroin or cocaine (Kandel & Jessor, 2002). We now know, in relation to drug use, that: 1) there are factors which facilitate the onset and maintenance of consumption of different substances in some persons with respect to others, 2) there is a progression from the use of legal drugs to illegal ones in a significant proportion of those who consume the former compared to those who do not consume them, and 3) a range of socio-cultural, biological and psychological variables modulate onset and maintenance factors and the progression (or not) from the use of some substances to others.

Also, from the research in this area (see Becoña, 1999), we can conclude that: 1) there is a significant relationship between the use of legal drugs (alcohol and tobacco) and the subsequent use of cannabis, and between cannabis use and the subsequent consumption of cocaine and/or heroin; 2) although there is a relationship, this (statistical) "relationship" should not be confused with "causality"; 3) there are also other variables related to the use of heroin, as of cannabis, which in turn are often at the basis of previous consumption of cannabis, heroin or cocaine, and which should be taken into account, since they could be those that explain the onset of cannabis use, its maintenance and the progression to the use of cocaine or heroin and other behaviours associated with such use; 4) even so, from a preventive and public health perspective, it is necessary to intervene with respect both to cannabis and to the other variables related to consumption, be they substances further up the chain of consumption (e.g., alcohol, tobacco) or variables of a social (acceptance, availability), biological (predisposition) or psychological nature (e.g., personality traits, learning); and 5) prevention should therefore focus both on implementing actions for preventing drug use directly and on modifying those variables related to the onset, progression and maintenance of the use of the different drugs, concentrating on variables of the individual (e.g., improving their coping strategies) and of the social system (e.g., providing opportunities), as well as on other aspects and behaviours related to the use of drugs (predisposition, delinquent behaviours, low self-esteem, etc.).

THE PSYCHOLOGICAL EXPLANATION OF DRUG USE

Basic psychological processes

The comprehensive explanation of human behaviour requires taking into account in a single human being: the socio-cultural component, or context in which the person was born, has learned, has developed their abilities and currently lives (this means that they have learned things within a specific culture, that they have a conception of the world different from those of other social groups, and that they interact with the world using the values and beliefs of that culture); the psychological component, or form of understanding and dealing with the world from their reality; and the biological component, or physical part that permits them to be, on the one hand, a human being, and

on the other, a social human being, depending on their organic structure and their biological functioning via their senses, organs and innate biological or other characteristics that have been interacting with their psychological and social parts throughout their life (Carlson, 1998). The basic psychological processes, in relation to how we perceive and feel, the role of attention, memory and intelligence, the crucial processes of learning, how we think and the role of cognition, communication, social influence and social cognition, personality, consciousness – all of these aspects should be taken into account in efforts to understand, explain, prevent and treat the abusive consumption of drugs (Becoña, 2002). By way of example, knowing how a person learns is of the utmost relevance. Learning is a basic process in human beings and in animals. Over time people learn about relationships between events in their environment and how these affect their behaviour. The theory of learning explains behaviour as a phenomenon of acquisition that follows certain well-demonstrated laws, those of classical and operant conditioning and social learning.

Together with the basic processes referred to above, which permit us to understand and explain human behaviour from a more psychological perspective, there are other processes related to the social part of individuals and, naturally, to their biological part, since our behaviour occurs in a social context and in accordance with a particular biological substrate. We refer to the importance of knowledge about cultural characteristics in relation to judgements and norms on drug use, of socialization processes, of the role of the family and the family processes affecting the individual in question, and of the family's input in the particular social context that concerns us (rearing styles, control, expectations for one's children, etc.). Also important is knowledge of the person's vulnerability and processes of biological predisposition.

In the specific case of drug use it is of vital importance to have psychological information on the person's adolescence and early adulthood, since it is normally between the ages of 12 and 20 that there occur – if they are going to occur – the processes of trying out drugs, which may lead to abuse and dependence. Thus, having knowledge about this stage of life is key for professionals, since it is those in this age range who are most commonly in contact with them, and they should be able to monitor closely the mechanisms young people develop for achieving control over their behaviour (Becoña, in press).

Types of family and upbringing

The socialization process is fundamental to the life of any individual, in order to develop as a human being within the cultural group in which he or she was born. Many of the psychological models for explaining drug use include the socialization process as a central element (e.g., Oetting & Donnermeyer, 1998). Especially widely studied has been the role of the family (see Fernández and Secades, 2002).

One of the most relevant aspects for the individual is type of upbringing. It has been shown that the way children are brought up influences their behaviour. In this regard, two variables are crucial: parental control and parental warmth. Parental control refers to how restrictive parents are, while parental warmth refers to the degree of affect and approval exercised in the upbringing of their children. Baumrind (1980) described three types of parenting style: authoritative, authoritarian and permissive; subsequently, Maccoby and Martin (1983) described a fourth type: indifferent. According to Craig (1997), the authoritative parenting style involves great control and great warmth, the authoritarian style great control and little warmth, the permissive style little control and much warmth, and the indifferent style little control and little warmth. Type of upbringing as a result of parenting style has a direct effect on the type of personality the child will develop. Thus, authoritarian parents tend to produce reserved and fearful children, with little or no independence, and who are moody, shy and irritable. In adolescence boys may be rebellious and aggressive, and girls passive and dependent. Permissive parents tend to produce self-indulgent, impulsive and socially inept children, though in some cases they may be active, sociable and creative; in others they may be rebellious and aggressive. The children of authoritative parents tend to be the most well-adjusted and self-confident, and to have high levels of personal control and social competence. Finally, the children of indifferent parents are in the poorest situation, and if their parents are actually negligent, may be inclined to give free rein to their most destructive impulses (Craig, 1997). All of this has clear implications for behaviour such as drug use.

Adolescence and drug use

Adolescence is a critical stage in a person's development, in which the individual has to develop on various levels: physical, emotional, social, academic, and so on. The quest for autonomy and identity are defining elements of

this period, and will be influenced by one's previous life history, by support and understanding (or the lack of them) from one's family and by the presence or absence of problems in the family, peer group and other contexts. It should also be borne in mind that adolescence covers a long period of time without a precise or universal starting point, and which can overlap considerably with "chronological" adulthood. The use of drugs is one of the aspects with which adolescents must cope and decide upon in accordance with their values and beliefs, but also with their sociocultural, family and peer-group context (among others), when they are offered substances or feel the need to try them. Experimentation with drugs has clearly become a common fact among adolescents in developed societies (Blackman, 1996). A large proportion of those trying drugs do so with tobacco and alcohol, followed by cannabis or hashish, and to a lesser degree, other substances. The earlier the experimentation with one substance, the more likely is experimentation with others. The fact that drugs are a relevant feature of adolescent life and that a large percentage of adolescents will try and consume them is something that must be accepted and acknowledged (Funes, 1996) if we are to be able to intervene and help those adversely affected.

Perception of risk is a highly relevant variable for explaining whether or not an adolescent consumes psychoactive substances. People make decisions according to the positive consequences they will obtain and the negative ones they will avoid. If they perceive that an act or behaviour will bring negative consequences they will not perform it. Therefore, the perception one has of different drugs, which depends on use, on beliefs and on the social construction in relation to the substance, will influence their consumption. There may sometimes be biases about the effects of the substances, in one direction or another. It is therefore highly important to provide correct information and to consider at all times that a person's objective is to have sufficient capacity for dealing adequately with their context and for adjusting to it in an appropriate way.

The use of drugs does not normally occur in isolation, but rather combined with other deviant, antisocial or socially problematic behaviours. Detecting adolescents vulnerable to these types of problems is of great relevance both for them and for the rest of society. This also clearly suggests that the improvement of people's social welfare (reduction of unemployment, increased opportunities, good schools for all, etc.), biological welfare (ease of access to healthcare, provision of regular health check-ups, etc.) and psychological welfare (proper upbringing with good family interaction and high levels of affect; ability to develop one's capacities and express opinions; support for preserving mental health; etc.) is one of the best forms of prevention of drug consumption.

Moreover, there are various factors that lead to people not behaving healthily, including (Bayés, 1991; Becoña & Oblitas, 2006): 1) the pleasurable (reinforcing) nature of the majority of the consequences of many harmful behaviours, as well as the immediacy of those consequences or effects, 2) the long time interval that normally separates the practice of harmful behaviours from the appearance of illness in its clinically diagnosable state, 3) the fact that while the unhealthy (e.g., carcinogenic) behaviours always or almost always provide real and immediate satisfaction, the emergence of diseases or other harmful effects is seen as remote and improbable, 4) the conviction of the unlimited power of medicine and technology to solve any problem we may develop, 5) the cultural system, which through different beliefs and by virtue of its deep-rootedness tends to maintain and justify practices that are unhealthy but socially acceptable or correct, and 6) the cyclical and protracted – rather than linear and rapid – nature of the process of change, in many cases characterized by relapse. Moreover, many adolescents do not perceive the problems different drugs may cause or the risks of the behaviours they perform; they concentrate on the short term and see these problems and risks as remote and as not concerning them – if, that is, they even perceive that they may cause problems (e.g., drunkenness) at all.

Leisure time, recreational life and drug use

Today, leisure and fun are more and more associated with the use of drugs, be it occasional, sporadic or frequent, even though many people have fun without consuming drugs, and it is possible to exercise or develop adequate control and self-control in fun situations, in recreational life and in other contexts of life. The spread and popularization of drugs in the social leisure context has been significant, and the two are frequently associated with one another, though there is no strict correspondence. Such "recreational" use of drugs (Calafat et al., 2000, 2001, 2004), widespread given the low cost of the type of drugs used – well within reach of a large section of the public –, involves the search for a means of enhancing resistance and pleasure in

recreational contexts (e.g., discothèques) and of "escape" in one's free time. Such scenarios also often involve risks. This phenomenon is largely circumscribed to adolescence and early adulthood: its relevance declines – and with it the use of substances in this context and the associated problems – as adult life progresses and the person has to take on responsibilities related to work, relationships, children and so on.

As is well known, recent years have seen, among young people, a significant transformation in recreational pursuits and the consumption habits associated with them. The characteristics of recreational life, "having a good time" and "going out", have changed drastically, becoming qualitatively different phenomena with respect to previous forms. Crucial elements in this new scenario, especially in the early period, have been the use of ecstasy to heighten the fun sensation and "last all night", a low perception of the risks of drug-taking, a change in the recreational timetable with the emergence of after-hours clubs (which open in the middle of the night and close in mid-morning or at midday), the *rutas del bakalao*[11] This term refers to the phenomenon that emerged in Spain in the 1990s whereby certain roads (notably leading from Valencia to other points on the coast) began to be frequented by revellers who would drive between the many discothèques and bars along them. These discothèques and bars, whose number began to grow, were hotbeds of drug dealing and drug use., and so on. A considerable portion of those participating in such new recreational contexts associate them with the use of substances for increasing resistance and having fun for as long as possible, thus providing the crucial link between recreational life and drug use. In any case, it should be borne in mind that when we speak of drug use we must take into account the true epidemiological data, in the sense that there are always more young people who do not consume illegal drugs than there are who do so (Calafat et al., 2001, 2004). Fortunately, consumption is commonly confined to weekends; even so, this type of drug-taking – and especially recreational polyconsumption – increases the probability of a percentage of those involved developing problems of drug or alcohol abuse, and of the early onset of associated problems. We have been witnessing over recent years, then, a change in substance consumption patterns among young people associated with the new recreational scenarios. Moreover, this transformation, while characteristic of young people in Spain, is also occurring in many other European countries (Calafat et al., 2001), in a further indication of a growing homogenization not only in fashion, style concepts and clothes, but also in types of drugs and their consumption patterns.

The transition from adolescence to adulthood. Assumption of adult roles and the role of drugs in the life of the individual

Today we know, thanks to a whole series of follow-up studies covering adolescence and adulthood, that drug use is not the same when one is an adolescent as when one becomes an adult and takes on the adult roles of the specific society in which one lives (Bachman et al., 2002). By way of example, Baer, MacLean and Marlatt (1998), on reviewing several of the longitudinal studies starting in adolescence and continuing right through it or into adulthood, conclude, in reference to alcohol use, that this increases throughout the adolescent period, but that from around age 20 there is a fall-off not only in consumption of alcohol but also in that of substances, the peak of consumption being in adolescence and early adulthood. The causes adduced for this change are related to the assumption of adult roles, the most important of them being those involved in marriage, having children and serious employment. This facilitates moderation in the consumption of alcohol. Put another way, the decrease in time available for drinking and the control exercised by one's partner, one's extended family, the social system itself and one's employment situation all help to reduce the amount of drinking.

It is clear, therefore, that a portion of adolescents' substance use decreases with time, even if such use is associated with different psychosocial problems (Baer et al., 1998). The substance or alcohol problems that do not decrease tend to be associated with early developmental problems such as those related to family conflict and deviant behaviour. This would suggest that in such persons there is a development process different from that of the vast majority of adolescents, and especially from those who even consuming substances have had only moderate problems, and those who even consuming sporadically, or heavily on special occasions, in adulthood, do not develop substance or alcohol problems. A clearer identification and understanding of these aspects is of great relevance, especially for the field of drug-dependence prevention, for the early detection of problem behaviours and for the improvement of

academic performance; it is equally important for adults presenting abusive consumption behaviour. The ability to identify and describe people with different patterns of consumption and different types of problems deriving from them can provide us with a more accurate conception of how such aspects develop from an early age and into adulthood, when the individual becomes a fully-fledged member of society. It is for such reasons that White, Bates and Lebouvie (1998) consider it necessary to shift the focus of research and prevention initiatives, and devote more effort to studying late adolescence and early adulthood. Therefore, it would be relevant to analyze adolescents' risk behaviours in their transitional periods and consider ways of reducing such risks.

All of the above is also related to Moffitt's (1993) distinction between problem behaviours confined to adolescence and those which persist throughout life. The data indicate the pertinence of this distinction in many cases. Moffit (1993) found for the case of delinquent behaviour that there were two types of persons: those who only performed it on certain occasions in adolescence, and those who did so both in adolescence and in adult life. In the case of drug use this is also the most probable scenario, given that the studies analyzed here do not indicate a linear relationship of consumption in adolescence and into adulthood. But these same studies (e.g., Baer et al., 1998) and others (e.g., Donovan, Jessor & Costa, 1999) suggest that the best predictor of drug use in adulthood is consumption during adolescence, or in some cases even earlier. The identification of these types of people is a task for research in this field (Cairns, Cairns, Rodkin & Xie, 1998; Silbereisen, 1998). On the basis of this information, the kind of preventive action most appropriate to each case can be applied. The types of preventive programme currently applied, i.e., universal, selective and prescribed, are in this line – a line that has indeed begun to bear fruit to a reasonable extent in the field of drug-dependence prevention. In turn, and in relation to the above, it is necessary to increase our knowledge not only of drug-use behaviour and the problem behaviour related to it, but also of direct and indirect causal factors related to the former, as is often exemplified by psychiatric comorbidity (Regier et al., 1990); all of this will help us to better understand drug consumption, its maintenance and its cessation. Such improved knowledge facilitates the task of drug-dependence prevention.

EXPLANATORY THEORIES OF DRUG USE FROM THE PSYCHOLOGICAL PERSPECTIVE

In any science it is of enormous importance to develop models and theories in support of it. But these are not simply the product of our intuition; rather, they are based on experience and on knowledge and data deriving from the field (in the case of drug use, on knowledge about risk and protection factors, on the results of epidemiological, empirical and follow-up studies, and on the all the broad spectrum of knowledge available about drugs, adolescence and early adulthood, prevention, prevention programme design and assessment, and so on).

As discussed elsewhere (Becoña, 1999), different groups of explanatory theories and models can be considered in relation to drug use: 1) partial theories and models, or those based on few components, 2) theories and models based on stages and pathways, and 3) integrative and comprehensive theories and models. Their analysis reveals that the majority of explanatory models are of a psychological nature, either including only psychological processes or combining them with biological and social processes.

In the category of theories and models considered as partial or based on few components are a series characterized by explaining drug use with very few elements or components. These would include the biological theories and models, such as those which consider addiction as a disorder with a biological substrate and hypothesize self-medication, as well as public health, health beliefs and competence models.

A theory of great relevance for the explanation of consumption, for treatment and for prevention is learning theory. Learning theory explains behaviour as a phenomenon of acquisition that follows certain laws, those of classical and operant conditioning and social learning.

Another group of theories that have had considerable relevance since the mid-1970s are those of attitude-behaviour. Notable among them are Fishbein and Ajzen's theory of reasoned action and Ajzen's theory of planned behaviour. The aim of these theories is the prediction of behaviour from the attitude or attitudes of the subject and from subjective norms, both being mediated by behavioural intention in the Fishbein and Ajzen model, and by these together with perceived behavioural control in Ajzen's conception.

Also worthy of consideration among the simpler theories are those classified as psychological theories based on

intrapersonal causes, or those based on affect: the systemic and social models.

The second broad set of theories and models, those based on stages and pathways, are all psychological. These explain drug use in accordance with people's stages of development on the path to maturity. The most well known of them is Kandel's gateway model. Essentially, her model is based on the notion that drug use follows certain sequential steps, whereby subjects begin with some "initiation" substances (legal drugs, alcohol and tobacco) that serve as facilitating elements for the subsequent consumption of others, especially cannabis or marijuana as a second step, followed by the illegal drugs. The basic idea in this conception is that the use of illegal drugs, such as cannabis, cocaine or heroin, occurs in a sequential manner, starting out from the use of legal drugs, alcohol and tobacco. Kandel's studies, both longitudinal and cross-sectional, indicate the existence of four stages through which consumers of illegal drugs pass: 1) beer or wine, 2) cigarettes or spirits (hard liquor), 3) cannabis or marijuana, and 4) other illegal drugs. The use of legal drugs is the intermediate element between the use of no substance at all and the use of marijuana, before moving on to the use of other illegal drugs. It is also important to point out Kandel's model introduced a new element that was absent in the field of prevention before the 1970s: that such a sequence or pathway is not necessarily found in all subjects in the same way. Use of a substance in one phase significantly increases the likelihood of moving on to the following stage of consumption, but there are various basic influences on the involvement or not in illegal drugs. The principal influences are the family and peers, and most research attention has been devoted to these two factors, though factors related to the individual and to other deviant behaviours are also important. Apart from contact with the different substances there would also be two categories of influence: interpersonal and intrapersonal, or personal characteristics (for example, the relationship between depression and substance abuse). The utility of the model has been demonstrated in several follow-up studies. Moreover, the pattern of development proposed has been found in both men and women, in different age groups and in white people and black people, indicating a high level of generalizability.

Another stage-based model is that of Werch and DiClemente, the Multicomponent Motivational Stages model, based on the stages of change identified by Prochaska and DiClemente. Kim's model of the process of reaffirmation in young people includes among its components adequate family support, adequate social support, care and support from adults, high expectations for the young person by relevant social others, ample opportunity to learn work-related life skills, relevant opportunities to assume responsibilities, opportunities for participating in and significantly contributing to social, cultural, economic and public affairs at school and in the community, ample opportunity to demonstrate skills and achievements, and reinforcement from significant others at school and at home and from other adults in one's social context. Further models based on stages or development include Labouvie's model of maturity in relation to substance use, Newcomb's theory of pseudomaturity or premature development, and Glantz's psychopathological model of the development of the aetiology of drug abuse. Also relevant in this category is the theory of primary socialization by Oetting and cols.

Finally, the aim of the integrative and comprehensive models and theories is to explain drug-use behaviour through the integration of components from different theories, or they may postulate a comprehensive theory that explains the problem by itself. Apart from the health promotion model, also sometimes known as the public health model, which includes psychological elements but also others (and was developed from the medical field oriented to planning), the rest are psychological, such as Bandura's social learning theory, now better known as social cognitive theory, or Catalano, Hawkins and cols.' social development model, which is a general theory of human behaviour whose objective is to explain antisocial behaviour through the specification of predictive relations of development, attributing great relevance to risk and protection factors and integrating previous theories with empirical support, such as control theory, social learning theory and differential association theory. Another highly relevant theory is that of problem behaviour by Jessor and Jessor, also and more currently known as the theory of risk behaviour in adolescence, and which considers risk and protection factors, risk behaviours and the results of risk. Furthermore, Botvin has recently proposed a general integrated model of drug-use behaviour, an eminently descriptive model that underpins his preventive programme.

PSYCHOLOGY AND THE PREVENTION OF DRUG USE

Treatment is highly important for those with disorders, but it is even more important to prevent other people

developing the same disorder. This is clearly pertinent in the case of drug use.

The majority of effective preventive programmes have been developed by psychologists, at least those of the latest generation that function adequately (psychosocial programmes, based on evidence, etc.) (see Becoña, 2006). It was in the 1970s and 80s that there began to appear preventive programmes based on the model of social or psychosocial influences and following research in social psychology (Evans, 1976) and social learning (Bandura, 1986), and more specifically on the antecedents of drug use (Jessor & Jessor, 1977). Such programmes consider the learning of specific social skills to be of great relevance. In the 1980s and 90s there emerged the model of general skills, which insists on the need to train young people not only in specific skills for rejecting the offer of different drugs, but also in more general skills, beyond what was previously being focused on in the field of prevention (Botvin, 1995).

If we were to characterize current effective programmes we might say that these are based on the scientific evidence available as a result of progress in research, as is the case of social influence programmes or others that include components of demonstrated efficacy. This has resulted from the recent revolution in applied science in relation to evidence-based medicine and evidence-based psychology (Labrador, Echeburúa & Becoña, 2000), which has extended to all aspects of the biomedical sciences and social sciences and drug-dependence prevention itself. Underlying this approach is that valid programmes must have not only sound theoretical foundations, but also an ample body of empirical evidence to demonstrate that they obtain the expected result – that is, that they are effective.

TABLE 1
MOST IMPORTANT ELEMENTS THAT SHOULD BE PRESENT IN A GOOD PREVENTIVE PROGRAMME FOR SMOKING

1. Information on tobacco and its consequences for health.
2. Knowledge of factors related to the onset and maintenance of smoking.
3. Knowing and detecting risk and protection factors for the whole group and for certain individuals in the group.
4. Training in skills for resistance to and rejection of cigarettes.
5. Training in everyday life skills.
6. Decision-making and commitment to not smoking.
7. Promoting healthy lifestyles.
8. Beyond the school: involving friends, parents and the community.
9. Involving the family as much as possible (parents' associations, parents and guardians).
10. Involving the whole school in the programme (teachers who do not smoke, who do not consume other substances, who promote healthy lifestyles).

Source: Becoña (2006)

As underlined elsewhere (Becoña, 2006), we now know which elements are effective in preventive programmes for application in the school (see Table 1). As we have advocated, prevention in schools should take place in the context of a specific weekly subject, under the title of Education for Health or similar. The current system of prevention employed in schools, with application throughout the curriculum, fails to function in many cases, either because it is not actually applied across the whole curriculum or it does not have the intensity necessary to produce the desired effect.

Today it is relatively easy to obtain a reliable list of all the drug-dependence prevention programmes that work (e.g., Gardner, Brounstein, Stone & Winner, 2001; McGrath, Sumnall, McVeigh & Bellis, 2006; Robertson, David & Rao, 2003).

In Spain there is a Catalogue of drug-dependence prevention programmes (Antón, Martínez & Salvador, 2001; Martínez & Salvador, 2000), sponsored by the Anti-Drugs Agency of the Community of Madrid. In turn, the assessment of programmes and how well they work appears in the meta-analyses (e.g., Thomas, 2002; Tobler et al., 2000) and systematic reviews (e.g., Jones, Sumnall, Burrell, McVeigh & Bellis, 2006) carried out.

In conclusion, it is clear that there is a great deal of work to be done by psychologists in the field of drug-dependence and other addictions, in relation to both prevention and treatment. Psychology is well aware of what an addiction is, and has provided a comprehensive psychological explanation of it, as well as adequate preventive programmes so that people do not start out on the path of drug use. The assessment of such programmes and their appropriate application will facilitate better prevention of drug use among our children, adolescents and young people.

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