FAMILY RELATIONSHIPS AND PRIMARY PREVENTION OF DRUG USE IN EARLY ADOLESCENCE

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PART I

1. INTRODUCTION

If it is true, as Calafat affirms (1998), that European culture contains within itself a great preventive potential because of its organization, social structure, culture, family organization and a continuing humanist conception and solidarity, it is also true that this potential has not been realised to decrease the consumption of substances, licit and illicit that continue to increase in our societies. Also the non-existence or the lack of objectivity of the preventive interventions, formed an alliance with the difficult appearance and development of true policies of primary prevention of drug addictions and has been contributing to this situation.

In spite of this, several years of studies have been carried out with a view to determining the causes and factors conditioning the use and abuse of illicit substances. Knowledge of the reasons which lead someone to start using (experiment), then to move on to regular and/or recreational uses, and finally to become an addict, is vital, since it can provide the framework for the development and implementation of different prevention strategies.

These strategies have come to involve, more and more, the families that in our view, are the front line group and institution for intervention/action in preventing substance use. Knowledge of the aforementioned factors becomes fundamental to the development and implementation of programs which can realise the potencial of the "protection factors" in children and adolescents, teaching their parents skills to improve intra and interfamily communication.

This position is also strengthened due to the increasing recognition by several investigators of the importance of family risk and protective factors and process in the development of drug use and abuse (Brook et al., 1990, Kumpfer, 1996, Kumpfer and Turner, 1990/91, Newcomb, 1992, Swain et al, 1990). On the other hand, the psychology of human development and at a social level, learning theory have been demonstrating that family socialisation process cultivates the primary predictors of children's behaviour (Kumpfer et al., 1989).

Considering all the available information, a priority is to develop a policy with the families, which presupposes an intervention at different moments of children's growth and development (from childhood to adolescence), which trains parents in the development of behavioural skills and finally includes an educational component for parents with information about substances, for them and their children. Without these presuppositions, it will be difficult to achieve the desired results (NIDA-NIH,1997).

Another aspect to take into consideration is the family concept that, in the course of time, has to imply an enlarged and inclusive definition of different family structures. This definition becomes very important for the study, implementation and generalization which we can call interventions / family programs, to be more necessary and efficient. Although in European terms this area of family prevention (study of risk factors and protection and implementation of family programs) doesn't have sufficient investment and the desired development. It is well worth mentioning the importance of assessing all the work that has been carried out with Families in prevention Programs, as well as activities and research in new fields and areas of work, which enrich our current knowledge and may be used to launch new, better-targeted and more efficient strategies.

Through our investigation that we designated FARPA-Project, we want to contribute to a larger discussion and a wider approach of a matter, which at the moment and in European terms, we'll designate as "creative" suspension.

Finally, we are still waiting for some questions to be answered, in the near future, or at least, approached by the technicians working in this area:

- How targeting family functioning increases prevention effect?
- How can we involve, if not most families, at least those who need it more? And what families need what?
- Is Prevention in school, better than Prevention in the family? Or is the opposite true?
- What type of parental educational practices have to be developed to prevent the children's substances consumption ?

2. THE PREVENTION OF SUBSTANCE ADDICTION: IDEAS AND CONCEPTS

The goal of prevention is to prevent, delay the onset of moderate problems such as substance abuse, associated disorders and psychopathologies (Etz Kathleen et col., 1998), and this issue has become one of the most important political and socio-medical goals in our society.

But, in spite of this, political and financial efforts and investments have concentrated more on treatment than on prevention.

Perhaps that the problem is not only because of the politicians, but is also related to the difficulty of the "preventologists" in the way they present their messages, their technical competence, translated into correct answers-programs-actions-activities that check the validity of the message that some of us have to do to pass. We know that the "science" of prevention is really recent and has still to prove its effectiveness.

What is true is that every day we are confronted with a growing number of personal, family and social dramas linked to this problem, considered by many to be a phenomenon which, more than anything else, threatens the "fundamentals" or roots of our society today.

However, despite all the efforts that have been made, the phenomenon keeps on growing and, at the same time, changing, both in addictive behaviours, increasingly linked to leisure, entertainment and recreation spaces, and in the "new substances" being consumed (Calafat et col, 1999).

Thus, prevention is presented as the solution to the problem of Substance Addiction: intervene/act even before the problem arises. This perspective of intervention *before* the problem develops proposes a new alternative of *looking*, of *understanding* and of *how to intervene* so that situations do not arise, do not spread even further or, in some cases, are not repeated.

In prevention "we need to distance ourselves from the knowledge we have acquired about a certain problem to be resolved, and concentrate on the situation that existed before the problem arose and the process by which this situation evolved into a problem" – QUOTE (Thierren,A., 1994).

For Jean Bergeret, QUOTE "it is to do with determining, as early as possible, what risk factors are present in one child or adolescent or another that may lead to a need which might, among other possible results, eventually lead to substance dependency".

Another possible definition, presents prevention as an active process that seeks to implement and to develop initiatives in order to modify and improve the integral formation and the quality of the individuals' life, increasing individual's life selfcontrol and the resistance to the temptation of drugs (Martín, 1995).

But the concept of primary prevention can be broader, and for some authors, like Alain Morel, it can bring together three important aspects: reducing the supply, reducing the demand and influencing the circumstances which favour the meeting between the individual and the substance.

Starting from this perspective we could affirm that the preventive interventions can be contained in two great blocks: reduction of the search (which seeks to avoid or to decrease the consumption of substances) and the reduction of offer (whose aim is to decrease the possibility of the product reaching the consumer). If the reduction of the offer is related more to the measures of control of traffic, police reinforcement and legislative measures and narco-traffic combat, it is in the reduction of the search that we will find the measures more directly linked to the actions in the school (teacher training and curricular intervention), in media campaigns, in the programs of family prevention, etc..

The concept of primary substance addiction prevention has not been consensual between researchers and those working in the field, and this has caused some confusion as to what it covers and, in particular to its practical applicability. For example, questions arise about who (individual or population in general – parents/friends/community) actions or programs should target, what type of intervention is needed, and how to act.

In this line of work the specificity or unspecificity of the actions or prevention programs has also been discussed.

Starting from 1980, with Caplan, we considered three prevention types: primary prevention, secondary prevention and tertiary prevention.

As we have already previously mentioned, primary pervention would be everything that helped to stop the appearence of certain disease or consumption situations, in the case of the substances.

Secondary prevention, that had as its objective to solve the situation, disease or problematic situation, would intervene in the absence of or in the failure of primary prevention .

The tertiary prevention would prevent the relapses and / or underlying complications.

More recently this conception has developed as follows: Prevention (primary prevention),Treatment (secondary prevention)and Tertiary (social, familiar, labour and economical reintegration).

In 1997 this whole terminology, especially in relation to prevention, underwent a new reclassification, proposed by Gordon (1987) and adopted in 1994 for the American Institute of Medicine. As such, three new categories are proposed: Universal, Selective and Indicated.

Universal prevention – Aimed at the population in general, including youths and families. Its objective would be to inform and to sensitize. As examples we can cite, the campaigns of Prevention in Mass Media, whether at community level or at national level, the programs of school intervention, and certain programs of strengthening the families, such as: Preparing for the Drug - Free years Program (Hawkins et al.1996); Iowa Strengthening Families Program (Molgaard and Kumpfer,1995) and FAST (McDonald, 1996), among others.

Selective – More specifically aimed at groups or risk sub-groups. These interventions are more selective, they are greater and they tend to involve the whole family, involving small work-groups. For example: The Strengthening Families Program (Kumpfer et al.,1989).

Indicated – Aimed at specific risk-groups (Eggert,1996). For example, for certain families where we can identify or diagnose, besides the non-specific risk factors, others such as failure at school, delinquent behaviour, consumption of drugs, parental dysfunction, sexual or physical abuse. These programs are of long duration and they involve support and dedication.

If many authors, from a perspective of "health promotion" and "health education", integrate or dilute the specificity or singularity of the theme of drugs in general, other authors such as Calafat, defend the specificity of the interventions in prevention, and we can mention "the specific prevention would be all the actions, activities or programs that approach the theme in a clear, concrete and explicit way" Calafat (1995).

For the last twenty years intervention in prevention has used a variety of approaches and techniques, from "alarmist" techniques to educative models of reinforcing self-esteem, assertiveness, decision-taking, developing personal and social skills, developing critical sense, increasing capacity for internal (recognition of our emotions and feelings) and external (verbalization and understanding others) communication skills, and reinforcing power of resistance to peer group pressure, among others.

All these approaches were used, some being combined in programs of health education or in specific interventions of prevention. Due to the lack of more studies and investigations, at least in relation to Europe, which program or programs and with what contents, are more suitable in terms of the contents of drug use prevention needs to be clarified.

Evidently European partner-cultural wealth, as well as the differences of the educational models between Mediterranean Europe and Northern Europe, have to be considered, as well as other aspects in the future design programs.

Depending on our perspective in relation to the prevention, this should be used as an instrument to avoid or to delay the consumption of drugs. Thus, the prevention should: inform-sensitize-train-educate-modify-offer alternatives and promote healthy lifestyles.

To inform – to know that by itself information is not enough to change behaviour, but nowadays the knowledge (and information) on the substances, causes and effects of the consumption has become fundamental, to combine with other strategies. For example, we discuss the value of today's information in relation to the drawing drugs. The credibility of the information we want to transmit, as well as the credibility of who transmits it, becomes an important factor in this informative model, of getting our message across. An adult or an adolescent needs to learn to use the facts and the information in their decisions (Blum, 1976).

When we sensitize somebody to a certain problem, we are creating the "methodical doubt" making the interlucutor think and act critically on the matters in discussion, which could be the use/abuse of illicit substances, in which case, it is not enough, for example, to say "youth say no to drugs" - this referring the programs in the line of the "Just say no", but it is necessary to have internal and external arguments to justify and to sustain the "no" to the offer and the use.

Training – to allow the individuals to inform themselves, to overcome the "methodical doubt" and to acquire the necessary know-how to answer the subjects raised by the problem itself. The benefit must not only be, personal, but should also be extensive (preventive agents' formation).

To educate – in the sense of "equipping" and developing competences and values in each one of us, to have sufficient knowlege to work with the use/abuse of substances. This education can be for a society free from drugs, or in the end, for a "conscientious use" of the licit or illicit drugs.

To modify the social, cultural, environmental, family conditions or groups, which are directly or indirectly related to the use/abuse of substances.

To offer alternatives – to create the conditions so that the individuals can find different types of alternatives (recreational-playful-occupational-professional, or other) that promote alternative behaviours to the use.

To promote healthy lifestyles, based on norms learning, values and healthy habits.

3. PRIMARY PREVENTION PROGRAMS

3.1. The evolution of Prevention Programs - An Overview

Until we arrived to the different prevention programs used nowadays, we can say that there was a quite accentuated evolution of the programs, of the theoretical foundations that sustained them. This evolution is due not only to the failures of the programs, which didn't achieve the predicted results, but is summed up by the knowledge that we have acquired of multicausality of the phenomenon of substances use / abuse. In particular, the study and the understanding of the operation of the risk factors and, later on, the protection factors, comes to give the quality to the existent programs, for a more efficient and effective action.

The first prevention programs that appeared at the end of the fifties and beginning of the sixties, were based on the information, believed at that time, that the simple information was enough to make the individual, once informed of the negative effects of certain substance, stop using. The fear and the contents moralists Perry et Kelder (1992), were used to put this message across.

These first programs were based on a rational model, or on an informative model, and given the inadequacy of them, new thematics were introduced - the promotion of self-esteem and values clarification were included.

Underlying these two thematics is once again the knowledge, but now explored in different ways. Internal and personal knowledge, and clarification of received information and its relationship with the “I” (I intern and external-(social)).

We still use today some of the techniques applied at that time, for example: discussion of a film on the theme of the drug use -groups of testimony-lecture-etc..

A second preventive model results then from the crossing of studies of Bandura (1986) on social learning, Jessor and Jessor (1977) and the contribution of the existent reality, previous to the consumption, and of the social psychology with Evans (1976).

The individual, the context, and the individual's encounter with the substance, in a certain context and moment, determined the basic presuppositions for the development of new prevention programs. From the recognition of this triad’s framework and of its consequences, personal and social, resulted the programs of prevention of the social type that enhanced the component of learnings of specific social competences.

A third model, very popular and with several programs drawn using its theory base as a starting point, is the model of the development of general competences. While the previous models specifically focused on alcohol, tobacco and cannabis, this enlarges its area of action to all drugs and tries to develop in the individuals (young) competences, which can help them to overcome the situation of the offer and of consumption.

The idea is that youth (adolescent) can notice, understand and integrate what is for besides the use of the substances, but what can also be related with the beginning of the same. "Life Skills Training " LST drawn by Botvin et col, which has undergone several alterations since 1980 to 1997, is the best example of this model. We've already refered to of the end of the first part the most discussed and developed thematics of this program.

At this millenium's end, we can say that the prevention programs position is, above all, in "key" variables and that of a fundamental importance in the etiology of drug consumption (Begoña,1999). The investigations into the risk factors of Catalano et col. (1996) are, nowadays, essential references of several preventive programs.

Attention should also be paid to the Programs with Families, Waldrom (1977) and to the Programs of contention of Pressure of Pairs, Gorman (1996).

We reviewed some theoretical models behind which some Programs were referred to some programs; we shall now go on to make reference to some of them.

Substance Addiction Prevention Programs should be drawn up with individual specificities, in accordance with the target group they are aimed at: children – adolescents – young adults – parents/teachers – Families and others. The main objective of these programs has to be defined in terms of a goal to be achieved, which can range from total abstinence to prevention or reduction of consumption, in a determined group.

On the basis of these presuppositions, and covering a broad range of interventions, we can describe five major Prevention Programs (William J. Bukoski, 1995).

3.2 Different Types of Prevention Programs

Informative Programs

They explain by using the media, the psychological, physical, family, social and legal consequences of drug use. These programs include information sessions, brochures and leaflets about the aforementioned problems. They are aimed at the population in general, although they may be directed towards a specific target group in specific situations (e.g. people who go to discotheques or Raves, because of the likelihood of ecstasy consumption).

Educational Programs

These are programs which enable individuals to improve development of their interpersonal communication skills, need recognition, expression of affection, assertiveness, acquisition of improved personal and social skills, and greater development of a critical sense, self-knowledge and the ability to say no to peer group pressure (e.g. Peer-group Program).

Alternative Programs

These are directed towards individuals and/or groups at risk, when it has been shown that they need to undergo new experiences and more intense sensations. These programs involve a series of activities particularly orientated around sport. In some situations they are linked to activities connected with radical sports, and in others they involve direct intervention in the community, with such necessary actions as voluntary work in hospitals or prisons.

Specific or Directed Intervention Programs

These are especially designed for individuals or groups in high-risk situations or situations where use is already a fact. These programs include information about the physical and psychological consequences of the use of the substances consumed, motivation for treatment and direction to treatment infrastructures (e.g. Alcoholics Anonymous or Narcotics Anonymous).

Relapse Prevention Programs

Although, for some investigators and experts, this area belongs in secondary prevention, these programs are increasingly mentioned as a component of primary prevention, as they involve not only the individual, but also the family and/or relatives/friends who could have a very important role in direct intervention, inasmuch as they may prevent repetition of earlier situations.

The studies of Hawkins and co-workers should also be mentioned, (*Estudios sobre intervenciones en prevención del abuso de drogas: Aspectos metodológicos: Centro de Estudios sobre Promoción de la Salud*, 1995) which, in accordance with the goals to be achieved, define seven Prevention Programs:

1 – Programs aimed at eliminating or preventing any kind of use. Total Abstinence Programs or, according to some policies, "Drug-Free Programs", are included here.

2 – Programs aimed at delaying the first contact with drugs. This goal is based on the studies and research of Robins and Przybeck (1985), which showed that young people who begin to use drugs before the age of 15, run a greater risk of having serious problems related to drug use than others who start to experiment them later in life.

3 – Programs aimed at avoiding or reducing contact with substances known as "access drugs", as some writers would regard tobacco, alcohol and marijuana. The theories that support this model are based on the research of Kandel and co-workers (1984), who found stable patterns of evolution from the consumption of cigarettes, alcohol and marijuana to other illicit drugs (heroin, cocaine and others) in a male population. This result was not so significant in a group of girls, according to the studies of Kandel (1984) and Yamaguchi and Kandel (1984).

4 – Programs to be applied and developed from earliest infancy to adolescence. The goal would be to intervene in the different stages of the child's development in order to neutralize or avoid situations which could be the origin of substance use. These programs are based on the work carried out by Hawkins and Catalano (1988) and Hawkins and co-workers (1989), which established a relationship between increased positive social connections, between groups of pupils in primary education, and a reduction in criminal behaviour.

5 – Programs which tend to prevent young people who have already experimented from moving on to "regular/frequent" use, and thence to more regular use and abuse. According to the authors, this premise is based on the fact that regular/frequent use leads to physical and psychological dependence.

6 – Programs aimed at eliminating pathological patterns of drug use, which interfere in the family and school environments and interpersonal relationships generally. Such interference/problems range from academic weakness to lack of friends, depression and delinquency.

7 – Risk Reduction Programs, helping individuals to try to control or avoid personal risks, or risks to third parties, as a consequence of substance use (Jessor, 1984). The model for these programs (much in vogue in the U.S.A. in the seventies and eighties) is taken from the evidence of young people who have been involved in road accidents due to excess alcohol, often with fatal consequences for third parties. Other examples are syringe exchange programs and the distribution of condoms. In Europe, there is the conspicuous German Program called "Mind Zone", publicized in discotheques.

In programming and structuring prevention programs, it should be pointed out, as Carl Leukefeld (1995) also states, that prevention programs or actions are time-limited, and therefore require strategies which maintain and, where possible, increase the envisaged impact.

There may be several reasons for the time limits of these programs:

The program itself, conceived to run over a set time, in a determined place and group, to resolve a specific situation; technical difficulties, such as theoretical frames of reference and support activities for developing the program in other situations and with other groups; difficulties in involving the community in support of development, through poor understanding of the problem, lack of resources or financial difficulties.

4. PREVENTION AND FAMILY PROGRAMS

Here at the end of the century, Western societies, and European societies in particular, have undergone so many intense social and cultural changes that the traditional role of the family as we know it, as educator and imparter of values, has been called into question, and the search is now on to discover what role is really reserved for it. The extended family no longer predominates; the nuclear family has taken over and, as Luís Patrício says (IREFREA-Semminar "Velhas Fronteiras/Novos Horizontes", Coimbra,1998), there has been an increase in single-parent and multi-parent families, substitute, urban, socially excluded and absent families… "The precariousness of the relationship, and the changes – more negative than positive – to social groups bring about interpersonal and inter-group communication difficulties and a fall in primary contacts in favour of secondary contacts, with a respective weakening in kinship relations, a decline in the family's social importance, the disappearance of a sense of neighbourliness and the erosion of the traditional bases of social welfare", QUOTE Patrício, L. (1997).

It is true that schools and other institutions are increasingly taking over the task of educating children and adolescents and occupying their time. The organization and promotion of recreational activities, games and social welfare activities are less dependent on direct family intervention, for reasons which we all recognize and which are broadly described in sociological literature, and more dependent on organized social structures. It is as if the family has been losing the control it has had for centuries over its members. This loss of control may be seen as a de-qualification of the Parents,and may be at the root of an educational lack – "lack of authority syndrome" (Antoni M., Frase y Scotto J.C., 1997).

However, parents and educators do still have a fundamental role in imparting values and as a frame of reference. Tackling jointly with their children subjects which are still taboo in our societies today, falls to them. Drawing up and adapting information and training programs for parents and educators, in helping with this task, reinforces their role. We know how drugs can operate in certain situations and environments as a process of compensation, a false way out or an alternative, filling internal or external spaces and unoccupied or badly-spent times. Thus, the major issue is to help parents and educators to respond to this educational and preventive challenge. How can parents be active partners and prevention agents? Where can they find the support and training to answer their own questions, fears, and personal anxieties?

In recent years, many people have dedicated themselves to the role of the family, in terms of relational intervention and interaction, already providing us with some studies in the field of family prevention in substance addiction.

Concrete questions, the fruit of extensive research, are: 1) Does the relationship between parents and children determine future addictive behaviour by their children, or not? If so, how does it do so? 2) Or can family behaviours or factors determine such behaviour? If so, which, and how do they do it?

From what has already been said, there is an urgent need to quickly draw up and implement prevention programs that will respond to the needs of equipping the families with answers and tools, making them, too, prevention partners. What is important is not whether the programs we are speaking of, fit into educational models and health promotion, or in specific primary prevention programs, but that if they are available from now.

Most research in this area derives from the study of Canadian and American programs. Thus, our reference is around 500 programs already assessed by Kumpfer (1995), from which we highlight some of the conclusions related to aspects to consider to improve efficacy in the drawing up and suitability of new programs.

He defines as presuppositions:

a) Comprehensive Programs

The term comprehensive entails, in first place, a clear and exact definition of the goals we want to achieve and what result or results we hope to achieve. Secondly, it entails using the correct tools, and devising suitable actions to achieve the goals. It is important that those who receive the messages can understand them, so they can assimilate them conveniently and effectively. Finally, the term entails exact timing for the actions, so as not to run the risk of losing their currency.

b) Directed at the Whole Family

Greater efficacy for these actions is linked to the involvement of all the members of the household in the program's activities. This involvement may occur at different times for parents and children, but the participation of all is vital so that they feel involved as part of the solution and the answer to the questions, the issues, and the goals to achieve.

c) Long-term Programs

We have already mentioned that in terms of effective prevention the time element is fundamental, to enable intervention in such a way as to try for changes not only in attitudes, but also in behaviour. These changes can only come about or be successful if we have *time to* produce them.

d) Understanding of Risk Factors and Prevention Factors

In preventive actions, it is not enough to tackle only the substances and their physical and psychological consequences. It is very important to understand and

discuss all the factors, near and/or remote, which are connected with the use of drugs (the functioning of the family, the role of the school, academic success and failure, the community…).

e) Adaptation to the needs of each community, including the socio-cultural peculiarities of each.

Although the programs can be designed in a broad way, so as to be used universally, it is essential that the specificities of each community/region should be considered, and that the programs should be adapted to these micro-realities. This implies a rigorous social, cultural, economic, recreational and occupational survey and knowledge of the sphere of intended action. From an evolutive reading of human development, integrating the different stages of the family cycle, it is impossible to design programs that do not take into consideration the fact that an individual has a past, lives in a present, and is building a future, and that all these moments are inter linked and interdependent. Thus, these programs must reflect and take account of the current stage of the family cycle, but must not lose sight of what has happened before, nor of what may happen later.

Bearing in mind what we have just described regarding the factors to be considered in designing and developing prevention programs, we can define five distinct types of Prevention in the family programs, designed using the structure of the family and the needs of its members as a starting point (Kumpfer, 1995):

- School for Parents

Programs much publicized in the seventies and eighties, aimed at parents and educators, based on information and training, developing thematic discussion and reflection modules. Goals – to improve the parents' information on a wide variety of matters, to increase and improve their ability to intervene in their children's lives.

- Programs to develop family and educative skills

Programs aimed at parents, with a view to developing and training their educative skills and recognizing risk factors.

- Family therapies

- Intervention programs in family crisis situations

Training Programs for skills, resolving conflicts and increasing organization and communication within the family.

Intensive rehabilitation programs for young people with problems with the law.

A program aimed at the relatives of young people who already have legal problems, the goal being to help them to cope with their children's situation through skill training.

In recent years, the tendency in terms of intervention in primary prevention of substance addiction has been to develop programs which improve and reinforce the educative skills of parents and educators, increasing information, reducing the impact of risk factors and realising the potential of protection factors.

In a review of the literature which already exists in risk and protection factors at individual and family level, we present some of these research projects, separating the studies on individual factors from the studies on family factors, given their particular specificities, although there may, and surely will be interdependence between these factors.

5. INDIVIDUAL CHARACTERISTICS AND RISK FACTORS

We know that some people more than others, some children and particularly the adolescents, are at a greater risk of substance abuse, owing to a series of family, biological, peer group and other circumstances. Schuckit (1987), Tarter (1988), and Blum *et al.* (1990) suggest that inherited biological traits and temperament may provide the link between genetics and behaviour. High behaviour activity level (Tarter *et al.* 1990) and sensation seeking (Cloninger, Sigvardsson, and Boham, 1988, and Clayton, 1993) have each been identified as predictors of early drug initiation or abuse. Gittelman, Mannuzza and Bonagura (1985) relate hyperactivity and attention-deficit disorders in childhood with the use of drugs in late adolescence. Lerner and Vicory (1984) found that children with a difficult temperament, including frequent negative mood states, withdrawal and slow adaptability to change in childhood, were more likely to become regular users of alcohol, tobacco and marijuana in adulthood than "easy" children. Kellam and Brown (1982) and Brook *et al.* (1990), also mention aggressive behaviour in 5-year-old boys as predictors of use in adolescence and, according to the studies of Lewis, Robins and Rice (1985), as predictors of use in adults.

Shedler and Block (1990) relate interpersonal alienation around the age of 7 to the use of marijuana around the age of 18. Jessor, Donovan and Windner (1980) and Brunswick, Messeri and Titus (1992) studied the importance of religion or the lack of religious practice in the use of drugs, and Jessor and Jessor (1977) studied the importance of "alienation from the dominant views of society". Other authors, such as Kandel, Kessler and Margulies (1978) and Krosnick and Judd (1982) studied favourable attitudes toward drug use, which are directly linked to use.

We could still include in this list the following factors:

- low tolerance to frustration – to adopt attitudes or uncompromising behaviours that can generate violence / riots or search of immediate bonus;
- low self-esteem - self-control difficulties and confrontations with day today difficulties;
- weak assertivity - inability to express desires, thoughts, fears, etc.;
- lack of autonomy - to create dependences;
- need of social approval;
- difficulty solving certain critical situations: family feud, death of a loved one, unemployment.

6. FAMILY RISK AND PROTECTIVE FACTORS

Today we know how a family's different behaviours and attitudes can be directly related to the use of drugs by some of its members, especially the children.

Merikangas and col. (1998) refer to the existence of two types of family factors that, in one way or another, can potenciate and same to unchain the risk of susbtances use/abuse in the children. They are the nonspecific and the specific factors.

There are three specific factors and they would have a direct influence on the substances use/abuse by children: - exposure to drugs - modeling of drug use - parental concordance for drug abuse.

The exposure to drugs in the parental phase of development and the consequent consumption risk or even consumption, in children, were studied by Duncan et al. (1995). The negative role model in terms of general use/abuse of drugs, including alcohol, or the drugs use as a coping mechanism among parents serves as a model for the development of maladaptive coping skills among sons (Petterson,1986). In addition to what has been referred to before, the parental attitudes toward drugs also have an important role in the attitudes and relative behaviours in relation to child consumption (Barnes and Welte,1986; Brook et al. 1986).

However, Molina et al. (1994) believe more important causes of drug consumption to be the quality of the parent-child relationship and parental monitoring of the behaviour of their adolescent against either direct modeling of parental uses or the tendency to use substances as a coping mechanism.

The nonspecific factors described are:

- disrupted family structure - exposure to marital discord - unpaired parenting - exposure to high levels of acute and chronic stress - family psychopathology - neglect - emotional-physical and sexual abuse and social deprivation.

If the parental marital relationship does not appear to have a direct impact on drug use, when combined and acting with other risk factors, it increases the risk of drug use on the children, Kaplan(1995). But parental substance abuse can contribute to family disfunction, which can feed the consumption, or favour it escalation, Gabel and Schindledecker (1991) and McCarthy and Auglin (1990).

If Robins (1985) refers to the fact that family conflict is associated with the youngster's delinquency and drug use, Farrington et al. (1985) go further, and consider

the parental conflict a greater risk factor than disrupted family structure, which results in parental absence.

Substances use in the parents can unchain in its children a more intense stress, Brown (1989) and a more negative existence in various areas of life, when, for example, we compare these families, with the nonsubstance abusing families (Roose *et al.*, 1990).

Both very permissive attitudes and very authoritarian attitudes on the part of the parents can be directly related to the use of drugs by their children (Baumrind, 1993 and Shedler and Block, 1990). Permissive parental attitudes to drug use by their children increases the risk of alcohol and other drug use (Johnson *et al.* 1984, Barnes and Welte 1986, and Brook *et al.* 1986).

The greater the number of members of a household using a drug, or involving their children in its use (even if this involvement is, for example, confined to a child going to buy a beer or a pack of cigarettes), the greater the risk of the children embarking on drug use (Ahmed *et al.,* 1984 and Robins and Przybeck, 1985). But the parents are not, or do not function as, the only family models; the research conducted by Brook and co-workers (1988) showed that the use of drugs by older brothers had much greater importance as a predictive factor of use than the parents' modeling of drug use. Brook and co-workers (1990) mention poor parenting practices and high levels of conflict in the family as risk factors in the health of adolescents as also being connected with drug use. The lack of maternal involvement in the children's activities, Kandel and Andrews, 1987, the effects of maternal drug use on parenting, Kandel(1990) inconsistent parental discipline, (Penning and Barnes, 1982, Baumrind, 1983) and lack of, or inadequate, parental educational aspiration for their children, are also strong predictive factors of use. Brook and co-workers (1990) concluded that the maternal control techniques are more important than paternal techniques in explaining adolescent marijuana use. Baumrind (1983) mentions non-directional parental attitudes, or attitudes of permissiveness, as contributing to a high level of drug use. Reilly (1979) mentioned that common characteristics of families with adolescent drug abusers included negative communication patterns (criticism, blame, lack of praise), inconsistent and unclear behavioural limits and unrealistic parental expectations of children.

Several studies have shown that users see their parents as more rejective and more hostile than non-users. Nolem - Hebeisen and co-workers (1984) found that the quality of the relationship between parents and children influenced certain patterns of use. The level of family conflict also seems to be related to drug use, and is a high-risk factor (Rulter and Jiller 1983, Farrington *et al.* 1985, Simcha-Fagan, Gersten and Langner, 1986).

But the parent/child relationship also operates as a protection factor and, according to Gorsuch and Butler (1976), Jessor and Jessor (1977), Kim (1979), Norem-Hebeisen *et al.* (1984), Brook *et al.* (1986), and Selmow (1987), involvement and attachment, are synonymous with protecting and discouraging young people/children from use.

Hawkins et al.(1992), reveals the strong parent-child bonding may inhibit drug use and delinquent behaviour in adolescents.

Hundleby and Mercer (1987) allude to trust, kindness and involvement, felt by children as a protective factor in drug use. Hirschi (1969) affirms that bonding to the family can inhibit drug use during adolescence. Other authors such as Patterson et al. (1982) concluded that an appropriate parental monitoring, was also effective in reducing delinquency. For Brook *et al.*(1990) "parental internalization of traditional values led to the development of strong parent-child attachment. This mutual attachment led to the child's internalization of traditional norms and behaviour, which in turn led the youngster to associate with non-drug using peers, which led to non-use". Likewise, Brook and colleagues (1986,1988) found that both parental control and attachment works to inhibit drug use among adolescents.

We must not omit, the work of Peterson and co-workers (1994), which established the relationship between the use of alcohol in parents with children aged between 14 and 15, by using family management practices and family proscriptions against involving children in adult family members' alcohol use.

To finish we can say that all these studies came to increasingly reinforce the idea of how important family and its functioning is, in the healthy and harmonious development of children and their future.

7. FAMILY PREVENTION PROGRAMS IN EUROPE

When we look at the European panorama with regard to existing family prevention programs or medium-term activities, directed towards the family, it is not very encouraging, owing to the scarcity of existing programs or activities. This is confirmed by the E.M.C.D.A. report (1998) "…prevention programs targeting parents are rare".

It is possible, however, to mention some of these programs and medium-term actions (from 6 months to 2 years), which we have grouped according to the most direct involvement of the target group: parents or parents/children, and the type of action (goals) or activity developed.

Thus, we can distinguish Programs or Actions of six different types:

1 – Informative Programs/Actions

2 – Direct Parental Involvement Programs

3 – School Programs with parental participation

4 - Community Programs with parental involvement

5 – Play/Cultural Programs with activities, for parents and educators

6 – Programs for Families in Difficulties

We would like to present some programs with which we are familiar and we would also like to acknowledge the existence of others, to which we did not have access, and which are not represented here.

1 – Informative Programs/Actions

One of the most commonly-used ways of reaching parents has been through the distribution of brochures, leaflets or small informative pamphlets. This material almost always dealt with three separate pieces of information: Firstly about drugs and their effects, second about certain attitudes parents can adopt to be alert to possible use situations, and finally an indication of available information and treatment centres. This type of material is often the responsibility of NGO's, which publicize it from time to time.

In the second European Prevention Week, in addition to NGO's, some states also distributed informative material. At times this type of material, irrespective of who

promotes it, is related to a more global program, but, in most cases, it appears to be "pirate" material (it is not publicized continuously).

2 - Direct Parental Involvement Programs

We call direct parental involvement programs those which are devised exclusively for the parents or the parents/children target groups. They are parental training or information activities, attempting to make the parents aware of their role as educators, adults and prevention agents, creating a place for dialogue and a search for solutions to existing situations.

"Convenção das sete cidades [Seven Cities Convention]" and "Convenção Viriato [Viriato Convention]" – Portugal.

These programs, which began in 1993 in the Central Region of Portugal, were run by the *Federação Regional das Associações de Pais da Região Centro* [Central Region Regional Federation of Parents' Associations] with the support of the High Commissioner's Office of *Projecto Vida*). The two programs involve 14 cities and about 2 300 individuals (parents and children). At the invitation of one or more Parents' Association(s) from the schools in each of the cities, the families (parents and children) met on saturdays, and activities went on throughout the day, coordinated by a team of experts. This program finished with a big meeting at the end of the school year with all those involved, and each school presented a study on substance dependency.

After the first saturday, and throughout the school year, there were fortnightly thematic sessions with parents and children. At present the program is suspended due to lack of financial support.

Roteiro da Noite [Night Guide] – Coimbra – Portugal

Within the ambit of the second European Prevention Week, the Central Region's CIAC (*Centro de Informação e Acolhimento*) of the SPTT (*Serviço de Prevenção e Tratamento da Toxicodependência – Ministério da Saúde* [Substance Addiction Prevention and Treatment Department – Ministry of Health]) developed a nocturnal activity in Coimbra for parents and educators. The Program consisted of organizing groups of parents (around 20 per group), who, after some (information) meetings with the CIAC team, spent two nights (one night in each week), visiting the places (bars, cafes, discotheques) where young people (including their own children) meet and enjoy themselves. The goal was to take the parents to the places so they could see and appraise the places and the night-time players. Before entering each establishment they were given a brief history of the place and some information about the way it operated: opening hours, music, prices and groups.

At the moment this program is developing actions which will cover the music most in vogue, to talk about “new drugs” and “new uses”.

Suchtprövention in der Familien und Erwachs enenbildung (Drug prevention-training in family and adult education) - Germany

This program has been developed by the Federal Centre for Health Education with the National working Association of Catholics Institutions for Family Education. The goal is to involve parents, who represent the basic social environment for children, as early as possible.

The ultimate aim is that the parents who attend this program should themselves become training agents and trainers of other parents.

Awareness Programme of Drug (ab)use: Shift Adult Training. Charleroi-Belgium.

The goal of this program, for which Carolo Contact Drogue is responsible, is to integrate parents, teachers, educators and youth team trainers into prevention programs to make the program more rounded and effective, enabling them to become prevention agents by spreading the prevention message.

Family Communication and Self-esteem - Cork - Ireland.

This program has been developed over several years, and is run by the Cork Social and Health Education Project. The principal target of all action is parents and educators, as they are held to be the primary educator. The main goals are parenting education and drug education, and the program also seeks to make the connection between prevention of drug misuse and family communication explicit.

Evaluating different methods for training parents in the prevention of drug abuse. - Barcelona - Spain.

This last program has the peculiarity of being the assessment of different types of intervention with parents. This program, organized by the *Plano Regional das Drogas* [Regional Drugs Plan] supported by the *Plano National de Drogas* [National Drugs Plan], assessed and compared the effectiveness of three commonly used methods of training parents in the prevention of drug abuse. This study involved 3 686 parents of primary school children between 6 and 11 years. The assessment of this program showed:

- The three methods used increased knowledge of drugs and parent’s educational attitudes.
- The video achieves a greater impact than the booklet or short talks.
- The parent’s subjective perception about the methods was positive.

Information and sensitization program for parents – Athens – Greece.

This program developed by OKANA (Organization against drugs) is aimed at parent volunteers. It combines information about substances and parental training.

3- School Programs of Curricular Intervention with extension to the Parents

Basically, these programs, are aimed at children and adolescents and they seek to inform/train on the misdeeds of the use/abuse of licit and illicit substances. It is carried out by technicians of the Health department, teachers, or in some cases, Parents and educators, after a training period.

By taking into account the individual's development and maturity means its contents can be applied accordingly. Thus, with the youngest (7 to 9 years) the subjects of alcohol and tobacco consumption and medications will be broached and starting from 13/14 years; the use of illicit substances (cannabis-heroine-ecstasy among others) will be discussed.

The most recent programs, besides the information on substances, also now integrate and combine other discussion themes, such as, the solemnity-image, self-esteem, expression of feelings and affections and techniques to prevent peer pressure.

The great majority of, these programs don't involve directly the parents or educators and we know, especially with the youngest, that this involvement is important for the reinforcement and credibility of the transmitted information. The following are some of the programs that do involve the Parents:

Program Crystal - Coimbra - Portugal

Prevention and health -Program against addictive substances - Protasi - Greece

Primary Prevention of risk behaviours in secondary schools - St Herblain - France

4- Community Programs for youths, with activities for parents and educators.

These programs, that seek to alert (to inform) or to intervene (alternative activities) in young populations of our society or groups in risk, out of school or family structures, have been developing, so that parents and educators too can be integrated into the campaigns for their children. In these, as in other programs, the aim is one of reinforcing and making the most of the information and activities of the program. We highlighted two of these programs.

Program: *Pilvi vai pouta?*

Since 1997 this has developed in Helsinki, Oulu and Porvoo and its aim is to focus people and interaction, particularly in the support of parenthood.

The activities with Parents are centered on the discussion of parenthood and education, and are based on the ideology of the Lions Quest Program.

Program: "*What do you think about this?*" - Navarrese - Spain.

This program, which is the responsibility of the Ansooin, Berrio plane and Social Municipal Berrizor Services Associations, is based on the learning techniques and the development of social skills, and is centered on young people between the ages of 17 and 25 and is related with the problem of the use and abuse of alcohol for this age group. Although the program is designed for the youths, parents are contemplated in the same way, through informative activities and discussion groups.

5 - Play / Cultural Programs with activities for parents and educators.

Play or cultural activities aimed at children and adolescents, which combine aspects of the play with the informative and formative slope in the area of the prevention of drug addiction.

There are many play, cultural and recreational activities that can be considered as preventive activities of the use/abuse of substances, because they promote health through physical and sporting activities, but ones that combine this activity with the informative and formative content are few. We happen to know that in some European Countries activities are developed, on a day, or at a weekend or at the time of a sporting tournament, but unfortunately, without temporary continuity nor a logical connection, which could bridge the gap between physical or intellectual activity and the information/formation in this specific area. As far as we know most of these activities don't involve Parents and educators.

"*Adventure in the city*" – Associação ARISCO- Lisbon

6 - Programs for Families in Difficulties

These programs are destined for Families with use/abuse problems in some of its members, in particularly son/daughter. The healthy aims to help the Family to work with the problem identifying the problematic situations that they have to live with and to try to answer, in a more precise way, the situations which use/abuse confront their children with.

We can include in these actions the programs of "prevention of relapses", aimed at families whose children already had a consumption problem with the aim of avoiding a repetition of such problems, or trying to help in its social situation, work and family.

. *"Les Points d' Écoute Parents"* - France

. *Prevention and therapy of Drug Addiction* - Sportelo Sociale Magliana 80 - Rome

. *Group of Families* - CAT of Coimbra - Health Ministry.

In the Annual Report (1998) on the state of the drug problem in the European Union, we still can refer more four actions that meet in development.

In Great-Britain, British Scoda, besides an intervention policy for youths, provides support to families and professionals. In Scotland, a program involving parents and carers in planning and care delivery. In Ireland, in Gaeltacht, a program based on information and training, through the technique of the “focus group” with groups of parents, and provision for information and training courses. Finally, in Luxembourg, a project has been developed that centres on the importance of the role of parents in children's education, as models and references.

PART II

FARPA PROJECT

Presentation and General Considerations

The FARPA Project (Substances Use-Family, Risk and Protective Factors During Adolescence) is carried out within IREFREA (Institut de Recherche Européenne sur les Facteurs de Risque chez L'Enfant et L'Adolescent) and it is sponsored by the DG-V of the European Community Commission. The project brings together some investigators from Portugal, Spain, Italy and France, respectively from Coimbra, Madrid, Modena and Lyon. It is included in IREFREA's research area "Family and Drug Use Prevention".

This project was planned to be undertaken throughout 1997/1998, following the survey on "Parent / children relationships in adolescent drug use prevention" conducted by the same research team in 1996/97. This former survey consisted of a bibliographic revision on the subject, some interviews with experts and fieldwork done in the four cities mentioned above (based on a common questionnaire presented both to parents and adolescents). It was based on the concepts connected to the Family Interactional Approach, developed by J. Brook and col. (1990) and showed some important differences in what the authors of that model considered as the most important family factors related to drug use and drug prevention. So, the data from that survey pointed out the need for another study on the relation between family and substances use by adolescents.

It seemed to us that we should now proceed in studying this subject based on a systemic approach, considering the family functioning as a whole (and its different dimensions). Several different aspects of family dynamics that may acquire a value as risk and protective factors (cf. Arthur, Hawkins and Catalano's definition, 1996), should be analayzed, too. It seemed to us that this would be a more profitable approach than the one studying the influence of each parent's behaviours, attitudes or values towards drugs on substances use by adolescents.

In short, the FARPA project is a survey on the family dimension of risk and protective factors in relation to the use of legal and illegal substances during adolescence. The generic aim of this investigation is to gather theoretical and empirical elements that may contribute to a better planning of prevention and intervention programs. By evolving and developing family protective factors inherent to adolescent

substances use, these programs may also participate, at a broader level, in the necessary national and European public health promotion. Following this idea, the group of Portuguese researchers prepared a protocol consisting of the design and research methodology, instruments and procedures, and a schedule for the field investigation to be undertaken in the four European cities mentioned before. That protocol is based on a theoretical model, conceived by the project's co-ordination. That model, whose basis and assumptions will be described in more detail further on, is also intended to be tested with this survey.

Another of the general goals of this project was the elaboration of a bibliographic survey of the theme being developed in the four countries.

We should notice that this project was presented, discussed and agreed upon in a meeting where the researchers from the four cities included in the project gathered. This meeting took place in Madrid, January, 1998.

1. THEORETICAL FRAME. ADOLESCENCE, FAMILY AND PREVENTION

1.1 The Family

1.1.1 Systemic Approach

The Family concept present in the FARPA Project is a systemic one. Our main interest is to understand and evaluate what emerges from the interactions between individuals ("how"; "for what purpose") and not to study the particular characteristics of each family member ("who"; "what"). By doing so, we respect the systemic condition of the family group, which confers identity, unity and autonomy upon it. With this approach we also respect its complexity, trying to avoid the epistemological error of the analytical models where we divide to understand. With the systemic model, on the contrary, we try to bring things together so that we can understand them (Rosnay, 1977; Morin, 1992).

In this context, we may, then, describe the family as a "group of individuals that, in a systematic and organised way, develop between themselves specific interactions, that give them a grouping autonomy and individuality" (Relvas, 1997,p.395). We may discuss this definition and its implications at different levels (for instance the widening of the family concept beyond the blood bonds or legal parental forms). However, and remembering our specific aim, we must emphasise two important aspects of that definition:

1) as Gameiro (1992) notices, with this definition one must assume a conceptualisation that sees family as a "complex structure or a network of relationships and interactions that we cannot study or evaluate with the same instruments created for the isolated study of the individuals". To describe a family using the characteristics, qualities, behaviours and values of each one of its members does not fit with its (inherent and emanate) complexity.

2) the organisation of those interactions, occurring inside a family and that turn a group of individuals into a family, follow two main purposes (tasks / family functions). On one hand, they aim to create and recognise a sense of belonging (togetherness) and, on the other hand, the possibility of development / individualisation of each one of its members (separateness) (Relvas, 1997).

From these two aspects we may conclude that it is important to find a nomenclature, and some evaluation or measurement instruments for the family, now seen as a group.

These instruments and nomenclature will be according to the systemic perspective, apart from also reflecting the two main functions and purposes mentioned above.

We arrive, then, to the concept of family functioning and to the developmental perspective included in the model.

In fact, the family is seen as a self-organised system that evolves through time.

As a group, the family has "inner powers" that arise from its own history and dynamics and that are independent from the contexts in which the family stands. As a group, the family shows functional characteristics that continually articulate (in circular manner by feed-back processes) the different roles, functions, tasks and relative power positions of its members and sub-systems (sub-groups, functionally organised and differentiated; for instance the parental or the brothers and sisters group). As a group, family develops itself through time and writes and rewrites its own history. As a group, family has capacities and resources that when put in action allows it to leave behind the stress intrinsic to its own development or connected with momentary conditions, situations or difficulties. As a social group, belonging to a culture and a community, the family suffers the influence of the context to which it belongs and in which it participates by maintaining informative and communicative exchanges. In turn, the family aggregates in its own functioning the information or influences it receives, without, however, changing its self-organisation. For all these reasons, the family is seen as an *autopoiesis* functioning system. It has the capacity to reproduce itself, transforming itself without ceasing to be a family, "that" particular family, open to the information received from the outside and closed in respect to its own self-organisation (Relvas, 1996; Gameiro, 1992; Ausloos, 1996).

In short, we may say that the family evolves through time, changing to be able to continue. This implies the use of its flexibility and adjustment capacity. This idea points towards the importance of the family life cycle – the trajectory of the family (the nuclear one) from birth until death. In that sense, its structure (that we have already mentioned in an implicit way when we wrote about the functional group organisation) will alter as it undergoes several stages associated with different developmental tasks in the individual or group interface (Minuchin, 1979; Olson and col., 1983).

From the various ways of classifying the family life cycle, we choose the one that proposes six stages: marriage; families with small children; families with children at school; families with adolescents and families with adult children (Relvas, 1996). Each one of these stages marks a moment of *crisis* and transformation in the family, with its double sense of opportunity to change or to evolve and the risk of sticking in its developmental process (pathology). Crisis, then, is marked by the need for relational and functional system restructuring and takes place in the historical time of the family as one of the elements of its developmental process. It is also in the moments of crisis that self-organising strengths as well as the resources and abilities of the family are most needed, since the group should "discover", display and "use" them in a flexible and creative way, in order to be able to progress.

We may therefore state, that each family has a specific way of functioning and uses a specific set of resources to keep itself coherent and consistent throughout its own entire history, enduring, however, the structural changes required by the contingencies of the moment it is living through. The way each family functions and the adaptability strategies or resources that characterise it, arise, in this way, as the “base line” or restraining standard of its adaptability movements moreover as the answer to inner and exterior stress sources, linked to the family and its members evolution.

Until now we have been presenting the general family concept (and what it implies) which provides the theoretical frame of our study. We have not however forgotten, that this survey’s aim is to study the problem of the use of legal and illegal substances in a particular stage of an individual’s and a family’s development (the adolescence and families with adolescents stages). As a consequence, we assume that we will be studying families living in a relational and structural moment of crisis or transformation.

*1.1.2. Families with Adolescent Children **

This stage determines the "'early end" of a specific period in the family life cycle mainly centred on children’s up-bringing.

We can consider, then, "two" family life cycles: one happening with the child’s physical presence and another one taking place in its absence. In a global sense, then, the child's adolescence marks the passage from one cycle to the other.

In structural terms, the redefining of limits (or boundaries) goes on reinforcing the differences amid the family sub-system as well as the family opening to the outside. This redefinition will, also consequently, become different since the tasks negotiation that lies under it leads to a new definition of the child inside the family and also to a new definition of the parental role. By the end of this period, the role of the parental sub-system will be one of emotional and affective support; the child's sub-system, on the other hand, will no longer be under a hierarchical subordinate position.

If the family feels the coming changes as too threatening it may acquire a rigid attitude. That rigidity may appear either by a relational triangle (father - mother - child) or by a coalition (for instance: mother and child against father).

This is an important aspect in order to understand some of the more frequent pathologies associated with adolescence. It is well known that a family with a drug addicted child shows a very typical structure: couple/dissenting parents whose conflict is denied and decentralised by focusing on the symptom-child or by the alliance of that child with one of the parents (usually the mother). At the same time the drug problem

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* This item is a reduced and reviewed version of part of a book previously published by one of the co-authors of the present work (Relvas, A.P.,1996, O Ciclo Vital da Família, Perspectiva Sistémica. Porto, Ed. Afrontamento).

demands the existence of a parental sub-system with a higher hierarchical position and with a stronger authority.

• *Independence, autonomy and identity*

With the arrival of sexual maturity and new and more complex physical and intellectual capacities, the child begins a process that frees it from the subjection it lived through during childhood. This leads the child to the world outside its family. This means a search for autonomy, to venture outside their familiar patterns without, however, cutting completely with the family bonds and support. For parents it means a gradual decrease of the control they held over their child and at the same time, an increase in the flexibility of family rules towards the child's growing independence.

Independence and autonomy are two concepts that we find linked together and always present. By independence we understand the capacity to fulfil one's own basic needs. Up until now that task belonged to those that took care of the child (the parents or other adults with parental functions), now it implies responsibility for one's own matters and options. In terms of family, becoming independent implies also an adjustment of feelings and behaviours of the family members since it is also linked with affection and with the capacity to assume one's own values, judgements and decisions (and not only physical and financial emancipation). On the other hand the expectations diffused by the culture and community to which the individual and his family belong, also contribute to define independence.

By autonomy we understand the person's need "to achieve independence and self-control, limited by natural boundaries, by the impossibility of total and absolute "self differentiation" (Bowen) and by other facts of life"(Benoit and col., 1988: 26). This is a relational concept and therefore we may speak of acquired autonomy or autonomy achieved by the individual (or the system) at any age or situation that a person is living. It is crucial to remember that autonomy is relative: no one is ever absolutely autonomous and the individual or the system organises itself to match with the responsibility level each can cope with. It seems, then, that the "*autonomy of values*" (Sprinthall and Collins, 1988) (building judgements and opinions as result of an "independent" thought, although not necessarily different from the one of others, even the parents) is harder to achieve than physical and financial independence. Parents have an important role in this process by allowing the adolescent to express his own opinions without renouncing their own ideas and values (this is an extremely important aspect) and also by favouring what we may call the "coaching" of the adolescent's autonomy. This happens when parents encourage the adolescent to express his own thoughts and when they stimulate him to consider other aspects of life and points of view.

Some studies on the differences between various styles of education and their relation with social classification (quoted by Sprinthall and Collins, 1988) identify two

different and opposite patterns of parental attitude concerning their role towards their child's autonomy:

1) Families where autonomy is granted quickly in respect to contact with the outside world (for instance: no one asks where the adolescent goes with his friends or how he spends his money) while at home it is expected that he behaves according with the parental desires-lower social classes.

2) Families where little autonomy is given towards the outside world while at home parents pay a great deal of attention to the adolescent's opinions, judgements and decisions and he is even encouraged to participate in the family decisions - higher social classes.

In the first case, we see that the family's influence takes the form of coercion, while in the second one there is some restriction and insecurity when it comes to applying social competencies on the outside. It is the second family category, however, that offers a better apprenticeship. In order to prepare autonomy, the ideal would be to have the combination of these two patterns; that is, promoting autonomy inside and outside without being excessively permissive.

Parents and children often agree on the need of autonomy and on private territory definition. Dissension and conflict arise when it comes to determine which areas belong to the individual decision, which ones belong to the community and how to define the manner and *timing* of parental control flexibility. We will return to this matter later on.

Independence and autonomy associate together in order to accomplish the most important of the adolescent's tasks (seen from a wide psychosocial point of view): the acquisition of identity. To E. Erickson (1972), identity acquisition consists in the integration of all identifications into one single identification; that is, the definition of a place and a role in the world (definition of *self*). Society is prepared to offer the adolescent this experimental period where he prepares him-self for the tasks he will have to accomplish in the adult world (psychosocial moratorium: love-making/marriage; study/labour and professional world, etc.). By allowing the slow progression towards an adult and mature identity, society delays the "debt payment" that the adolescent owes to the previous generation.

Nowadays new difficulties (like the increasing number of years spent in study, with the consequent delay in financial and work independence and the lack of confidence in the future) make the family role in this period harder and more complex. Physical and financial independence should work as a basis for the final source-affective autonomy, or, at least, be simultaneous to it. On the contrary we see that the former is happening later and later and, very often, after the second one: the individual has already defined his psychological independence while still remaining financially dependent on his family.

This aspect acquires a new importance when we consider that the parents also live a similar process of mutual and individual autonomy rediscovery and redefinition. For

years they focused their tasks almost exclusively on taking care of their children. By doing so, they did not notice that their ultimate aim was to prepare the children to leave home.

This strange feeling, a mix of forlorness / accomplishment is aggravated by the supplementary stress sources of this phase that we usually call "middle-age crisis". It is necessary, then to rethink what one expects from the rest of one's life. Although in a different way, adolescents' parents also experience similar conflicts and difficulties in an identity (re)affirmation process. Very often they feel pulled by frustrating or too absorbing professional careers. They live the disillusion of an empty marriage or one in which the flame no longer burns. They look at the person they live with and don't recognise the one with whom they were in love many years ago. They feel confused, hesitant and guilty in the presence of the previous generation (their own parents) which now approaches them again looking for protection and support. This pressure demands extra time and energy and increases the negotiation difficulties with the adolescent. These difficulties are often classified as inability to have dialogue, impatience or regardlessness; in short, as a certain parental negligence that hands the children over to others: the school, the peers group, and so on.

According to V. Satir, (1991) the children's adolescence may be the necessary impulse to a family life renewal/renovation. This happens by an equivalent process of both parental and child autonomy, which necessarily implies profits and losses on both sides. The differences between generations that coexist inside the family should not be denied; on the contrary, they are fundamental to the development and continuous progress of the family system because of the acceptance and negotiation capacity that they provoke/bring. On the other hand, the adolescents are neither ungovernable "monsters" nor "poor things" and their parents are not their victims nor their executioners nor, even less, their "builders".

• *Parents-children relationships*

In the process of growing up, adolescents understand the nature of their relationship with their parents, as evolving as follows:

1) first, the parents are seen as the source of basic needs satisfaction and parents feel gratified by their children's reactions (guidance counsellor and need-satisfier);

2) next, parents and children show mutual tolerance and respect. The adolescents start to recognise that, like them, parents also have needs to be fulfilled;

3) finally (by the end of adolescence and the beginning of adulthood) they consider that the circumstances, capacities and needs of each one determine how the relationship changes (Selman, 1980).

In an investigation carried out by E. Figueiredo (1985) in Portugal with a group of individuals between 10 and 12 years old, this progressive evolution is also found.

In that study three conflict movements are studied: autonomy/dependence; obedience/disobedience and idealisation/disidealisation. In the end it showed a constant and progressive tendency, as the children grow older, to value autonomy, disobedience and parents disidealisation. It is possible that parents experience this as a loss of their children's love, admiration and of their own authority. All this in association with other stress sources that we referred to before may contribute to a loss in the parent's self-esteem.

To those investigators, however, what seems to be the central point at this stage seems to be the adolescents' transition to a new level where, gradually, parents are no longer seen as experts in every subject (disidealisation process) and, at the same time, the adolescents feel more competent in certain domains (and, consequently, more able to take decisions). This increasing self-confidence leads them to devalve any of his parents' effective capacities (even if they really have them).

From "my parents are the best, they know everything" the adolescent gets to "I know everything". Only later will he be able to accept the relativity of knowledge. This may help to understand the progressive growth of disobedience found by E. Figueiredo. In the adolescent's evolution we go from a parent's idealisation stage to an adolescent's idealisation until, finally, balance is achieved by relativity.

• *Conflict*

It is in this context that we find the well-known label for the difficulties of this stage: the famous generations conflict. It seems obvious that this conflict is necessary and inevitable to allow the adolescent to go on with his process of acquiring his identity, autonomy and, to a certain extent, making the parental independence easier.

The conflict reflects the impact between family values (which obviously include the way each member integrated the socio-cultural values and rules) on one hand and the rules that the new generation slowly builds up and the values they choose on the other. It is in the difference of points of view, in the disagreement of opinions, on which, gradually, the adolescents build their identity and autonomy. It is the presence of a clear definition of limits by the family that allows the adolescents to evaluate, for the first time, if their convictions are just and correct. Only after that can they face the outside world (where they too need to have other sources of support like the peer groups, for instance).

If the adolescent did not find what to fight against inside his family there wouldn't be any conflict at all; but in that case the possibility of a healthy growth wouldn't exist either since one of the parts (the adults or the adolescents) or even both would be pretending. That is what happens in the systems that strongly feel this change to be a menace. In those cases, instead of a relational flexibility and conflict acceptance and

management, a rigid attitude emerges attempting to annul the conflict. This attitude can be expressed either by absolute permissiveness or by extreme repression.

Some interesting studies on the effects of parents educational styles (Sprinthall and Collins, 1988) in different cultures (namely the Danish, mainly democratic and the American, mainly authoritarian) and sub-cultures (marked by ethnical and social differences) show that the more parents discuss and share their decisions with their children the more the latter are unresigned, have a feeling of independence, 1iberty, self esteem and the predominance of an *inner control locus*. The investigators also found more harmony between the attitudes of these adolescents and their parent's expectations (results achieved in the *Danish* upper classes). They also verified that the permissive style results in a behaviour escalation that, in a short while, will be out of parent's control and that expresses itself in parental rejection and anti-social behaviour.

In short and quoting Skinner and Cleese (1990: 261-262), "If parents accept that the fight is necessary for their children's well-being they will draw them firm frontiers and they will offer them something to fight against. Of course they *should* adjust those frontiers once in a while because as they grow up and become more independent it is necessary to give them more space. But it is important that the parents don't become attached to the fight details and do not think that all arguments are solved immediately. Parents shouldn't worry if they wonder they are not acting correctly nor should they try to straighten things up. If they always adapt to the needs of the younger people, if they try to please them and make them happy they won't be giving the right answer to that situation. The main point in this whole period is that the adolescent is looking for something to fight against. If parents always submit to the adolescent's desires, the young will desperately have to look for a conduct that provokes reaction. This will cause conflict to grow until parents take a stand or till the son burns the house. (...) parents will be glad to know that it is normal to have some conflict, because normally they are surprised by it. (...) that is always necessary".

• *Power/Authority*

The issue of power regulation crosses the whole parents-children conflict. It is important, then, to clarify what it is meant by power. Although this is not the unique characteristic of the individual(s) it is seen in a perspective related to the person and to the theme or situation over which that person practices their power. With respect to family relations power may be defined as "the relative influence that each family member has in the pursuit of an activity" (Benoit and col., 1988: 533). Its valuation must be carried out at the process level and not at the results one, taking each specific situation into account in terms of hierarchy and operationally. All this must also be linked with the system adaptability and to the fact that it varies in space and time. When someone exercises power it is always under the name of *authority*.

Firmness, that we previously mentioned as important to achieve autonomy, implies that parents should not refuse their parental authority but, instead, they must learn how to adjust it and how to use it flexibly which may favour its progressive reduction. We may consider, then, that the autonomy level that is granted to the adolescents has to balance between a maximum and a minimum grade. The first one may avoid the confrontation between parental authority and the adolescent's dignity (including here their growing need of assertion, self-esteem and self-confidence) and the second one will allow the support and security that the adolescent also needs.

In order that parents may operate within this area it is important that authority and convictions firmness are not be confused with excess of control or repression. Parents may ask their children to answer for their acts but that does not necessarily mean that they respect their children less or that they do not recognise their emerging will and respect their decision capacity. However, sentences like "You have to do it because I say so" or "What do you know about life to contest what I am saying" are not acceptable. Instead parents may say: "You must do it because I came to the conclusion that this is the best solution. Tell me why you think you have a better answer and we may discuss some alternatives" or "Tell me about your own experiences and tell me why you think I am not right." That kind of negotiation and the effective fulfilment of what was agreed upon is very important in order to build mutual confidence between parents and their children (if a father agreed to lend the car on Wednesdays, without any other previous stipulation, he can not qualify this loan based on his son's behaviour during the previous week-end). It is very important that before sanctioning a pledge, both sides ponder if they truly have the possibility to fulfil it; if not it is better that they do not compromise and go on with the negotiation.

J. Smetana (1987, in Sprinthal and Collins,1988) studied how parents and adolescents define their own power and authority areas. He verified three different behavioural areas:

* one concerning "formalities" (behaviours judged on the basis of mutual agreement - for instance: to inform the parents of the places where the adolescent goes; to accomplish previously agreed tasks);
* "moral acts" (judged on the basis of respect for universal principles like: not to take money from the parents; not to misuse the family property).
* "Personal acts" (judged on the basis of personal discrimination such as: to sleep until late at weekends or to decide on the amount of food.).

Smetana also considered another area of mixed behaviours of personal choice and conventions (the sort of clothes one uses and to clean the bedroom). He also found out that parents and children agree about the legitimacy of parental authority on conventional and moral subjects. In relation to personal and mixed areas, parents tend to consider them as conventions (therefore under parents jurisdiction) while the children see them as belonging to the personal area (and depending on their own decision capacity). When parents and children classify a subject under different social categories they also disagree about what should or should not belong to the parents

authority. When the two parties disagree about the power area definition, conflict and misunderstanding emerge.

However, the divergence between parents and children can be healthy if it induces clear and contexted communications and if dialogue does not have as its unique purpose to achieve a consensus on the perspectives; then, instead of a disaster, divergence can enrich the relationship considerably. The result of that kind of dialogue is the true expression of authority flexibility. There will be times and situations when the adolescent's opinions and arguments are considered as adequate and acceptable by their parents and others when that will not happen. The parents should not, then, change "the order" they gave, especially when the children's claims go against the whole family's well being and deep convictions.

Anyway, even in this kind of dialogue one must always pay attention so that a divergence of opinion does not turn into a fight where the real motive is the power and domination in the relationship. That would lead to an escalation on both sides where the subject being discussed no longer mattered. What is at stake in those occasions is no longer the reasons why the adolescent should or should not go to the disco, for example, but who has the last word in the discussion, who takes the decision, who wins the battle ("if you go I am defeated, that is why I don't allow you to go" or "if I don't go I am defeated, that is why I must go). The going to the disco no longer matters. The power messages that parents and children exchange often bear (in a more or less implicit way) a metamessage that says: "One of us will be the winner and the other the loser." We can not deny this conflict nor that there are winners and losers, but we must strive so that it does not become the motive in the relation. One has to accept that sometimes we win and sometimes we lose, but basically we must recentre the negotiation on the issues and situations that are being discussed. This may be a good trick to establish both sides as winners. Sampaio (1994) presents us with some daily life situations that may lead to the kind of conflicts that we have been referring to. They are, as the author calls them, "decisive moments" to apply the *balance regulation rule* on parent-children relationships. To wake up or to let sleep: why not offer an alarm clock? The value of missing school and the necessity of distinguishing between an occasional absence and missing systematically. Family meals or the "tray syndrome": the possibility of still having common spaces and time (preferably without TV). Discos and going out at night: yes or no? Alone, or with company? To allow each generation its own time/space: holidays, with or without the family? Eventually neither always with the family, nor always without it.

All these are examples of mixed behaviours (convention / personal decision) that parents and adolescents tend to classify in different categories and in relation to which they have contrary attitudes with respect to the authority game.

The differences between parents and their children are the guarantee of mutual growth.

This will happen if in the hardest and painful moments of the fight the provocative escalation is prevented and if the conflict is not avoided. That last hypothesis is possible either because parents try to be their children pals or just friends, or because they deal with them as if they were already adults. The last option robs the young of the enrichment of diversity and the time to take the risks inherent to the experiences they need to live.

When we say parents should be experienced guides rather than hard controllers we do not mean that their role should only be to "advise" their children (most probably wouldn't accept it if they had asked for advice). The old sentence "everything I do and tell you is for your own good" (which may even be true) does not prevent us from also recognising that the "the way to hell is paved with good intentions" or to hear from our adolescents "you can help me by allowing me alone to discover what's best for me." We must not forget that these games of difference acceptance also exist between siblings. That is why it is so important to create individualised spaces among them as well as between the generations. Also for this reason differences should not be considered only in the ages but also in terms of interests, values and personal options, that should never be neutralised in the name of family justice. If a boy, unlike his sister, does not like to go out at night he must not be pushed to do so just because the family thinks that the children should have equal opportunities.

Using Sampaio's words, the presence of parents close to their children is perhaps even more important in this period than during childhood. At this stage "their role is to be attentive, to mobilise without directing, to support them when they fail and to praise when they succeed. In short, to be with them and respect more and more their individualisation process" (Sampaio, 1994: 42). As the AA say: "That I may have the capacity to accept what cannot be changed, courage to change what needs to be changed and the wisdom to recognise the difference".

1.1.3 Adolescent Drug Use and Family Influence

We have just clarified that at this stage, aspects such as generation conflicts, parental authority, the balancing of autonomies and the use of power (by individuals and by the group), the redefining of attachment bonds and also the interactions outside the family context are, at least theoretically, fundamental to the adolescent and his family's development, mainly in its behavioural outcomes. We also know from theory, and have empirically confirmed, that the legal and illegal substances use during adolescence is closely associated with family factors. It is also known that these factors may act either in conjunction with or irrespectively of other factors commonly accepted as being linked to substances use (social and personal factors, for instance) (Brook and col. 1983, 1989, 1990; Weiner, 1995).

Either way, it seems possible to verify four important aspects in this area:

1. these factors, especially the family ones, influence the initiation and frequency of toxic substances use by adolescents (Weiner, 1995);

2. the use of substances may be seen as an answer to a crisis in the family development (Ausloos, 1981, 1996);

3. the family history, namely the history of addicted and anti-social behaviours in the family, is related to the substances use by adolescents (Relvas, 1997);

4. the adolescents' perceptions of adults substances use, including their parents, is, however, (and irrespective of being correct or not) determined more by their own substances use than what is really verifiable (Newcomb and Col., 1983). This information is also consistent with the fact that the perception that the adolescent has of his own family is more important than what his family really is like. This, in turn, is also consistent with the divergence between parent (adults) and adolescents verified during the evaluation of the family's functioning (Olson and col., 1985).

Finally, we should clarify that, the data showing the non-existence of *predictor* family factors (alone) of substance use, during adolescence, are commonly accepted (Weiner, 1995; Relvas, 1997). Their influence, however, can not be forgotten or denied at any level of the research on substance use by adolescents (from treatment to prevention) and we should emphasise it, particularly, at the prevention level.

1.2. Prevention: Risk and Protective Factors

In 1993, Coie and col., presented a new area of investigation: "prevention science", located in the interface of psychology, criminology, psychiatric epidemiology, human development and education.

The aim of Prevention Science is to prevent or diminish important human malfunctioning by focusing investigation on the systematic study of potential forerunners of pathology or health, called respectively "risk factors" or "protective factors".

It is also important to stress that "the specific types of malfunctioning are typically associated with various risk factors, and that the exposure to several risk factors has cumulative effects. Often, the probability of becoming ill increases because of the number, duration and toxicity of risk factors. On the other hand, a particular risk factor, is rarely specific to a unique disorder, because disease causes tend to scatter their effects about the different adaptability functions throughout the development sequence" (Coie e col., 1993: 1013). We can, at this stage, talk of "generic risk factors", commonly preceding various kinds of disorders.

In different investigations, several researchers have identified some generic risk factors, which are classified by Coie and col. (1993) in seven different categories: family circumstances; emotional difficulties; school problems; ecological surrounding; bodily handicaps; interpersonal problems and delayed developmental skills.

It is also known that risk factors do not reveal the same predictive capacity throughout the system's development. If some of them foretell disorders or malfunction in one or several development stages only, others can predict effective disorders during most of the developmental path. For instance, the contact with devious peers is associated with anti-social behaviour only during adolescence, but poor parental control is related, in a consistent way, to behavioural disorders, both in adolescence and in childhood (cf. Coie e col., 1993).

Until now we have only mentioned risk factors, but there are some personal and social characteristics that perform protective or preventive functions and that can act in two different ways:

1. by interacting with the risk factors, thus minimising their effects by breaking their chain-reaction performance;

2. by preventing the appearance of risk factors (Dignam and West, 1988; Wheaton, 1986). Coie and col. refer to the fact that, when it is difficult to identify or eliminate the risk factors (such as extreme poverty, for instance), the only intervention strategy possible is, probably, the multiplication of protective factors. It is understandable, then, those authors recommend that the Prevention Science should promote the knowledge of the protective factors: psychological resilience, strengths, skills and environmental advantages.

In the same way, Hawkins, Arthur and Catalano (1995) state that in a prevention program, namely illegal toxic substances use programs prevention, it is essential to *reduce* the risk factors and to *increase* the protective factors. In short, in this fight against drugs use, if we want to act by preventing, then we must promote public health; empirical knowledge of the risk and protective factors (specific, predictors or inducing factors). Only then will we be able to develop consistent and credible prevention programs that may guide us to the reduction of risk factors and, above all, the promotion of protective factors.

Particularly in the area of primary prevention we think that there is no preventive specificity. When, at the mental health prevention level, a fieldwork is created to prevent a certain symptom (for instance, drugs use), we will also be intervening in other areas (for instance, juvenile delinquency, anorexia, adolescent pregnancy, and … drug abuse simultaneously). We think that an efficient intervention should offer the possibility of change in various systems, namely the individual and the family one, so that an interrupted growth may be resumed, not only by the adolescent but also by the several interacting systems (Lourenço, 1998).

2. CONCEPTUAL AND OPERATIVE DEFINITION OF THE SURVEY

2.1 Research Problem and Conceptual Working Model

The theoretical elements that we have been presenting will become, to a certain extent, the data that will allow us to define the problem that we are studying in our research project, more precisely in our field investigation.

In fact, the general aim of the survey is to understand the eventual relations between legal and illegal substances use (tobacco, alcohol, marijuana and other drugs) during adolescence and other factors connected to family characteristics. *The problem of this investigation can, then, be defined by the following question: to what extent and in what way does adolescents use of (legal and illegal) substances link itself, at this stage of their development, with certain characteristics of their family group?*

The answer to this question leads us to the definition of the variables that frame it (and consequently to the problem itself) in an operative way. So, the *family functioning*, as we have already defined it, is seen as the variable that best characterises the family group as a system.

On the other hand, the assumption of these developmental stage specific characteristics leads us, directly, to the family life cycle concept, to its stages as well as to the notion of crisis or transformation. Theoretically, it is obvious that a family with adolescent children faces inner stress sources, intrinsic to its own development. For this reason it seems important to identify the kind of strategies that the family uses, as a group, to confront those stress sources. The *family coping* emerges, in this context, as another variable that probably also interferes with the problem we are studying.

There is, however, another side to the question we used to define the FARPA research goal that needs to be clarified. When we ask "how" and "to what extent", does substances use by adolescents relate to the family, we are also including in the problem definition, the way in which that relation operates. We believe that some aspects of family dynamics, as well as emotional and functional "family management", can become either *family risk or protective factors* in relation to the use of toxic substances by adolescents (this is, after all, another important point of our survey). The third variable of family dimension included in the model we use is, therefore, already identified.

Finally, we come to the forth variable to be taken into account in our model: the variable *use of substances*. In operative terms, this variable refers to the evaluation of certain aspects such as beginning, frequency, type of consumption and kind of product used. In this last item we took into consideration the eventual legal and illegal substances use (alcohol, tobacco, marijuana and other drugs). We chose to do so because this survey purpose is related to public health prevention and promotion. Besides, the results achieved by some investigators show that, in certain contexts, the use of legal drugs can be a predictor factor of later illegal drug abuse (Brook and col. 1990, Weiner, 1995).

Having defined the variables that encompass the problem, we must specify which are the hypothetical relations and influences between them (and the direction of those relations and influences). Having this purpose in mind we built a conceptual model that, in our opinion, not only explains the problem but also (through a subsequent test in the "field") allows a coherent approach to its study.

Graphically we may present the model like this:

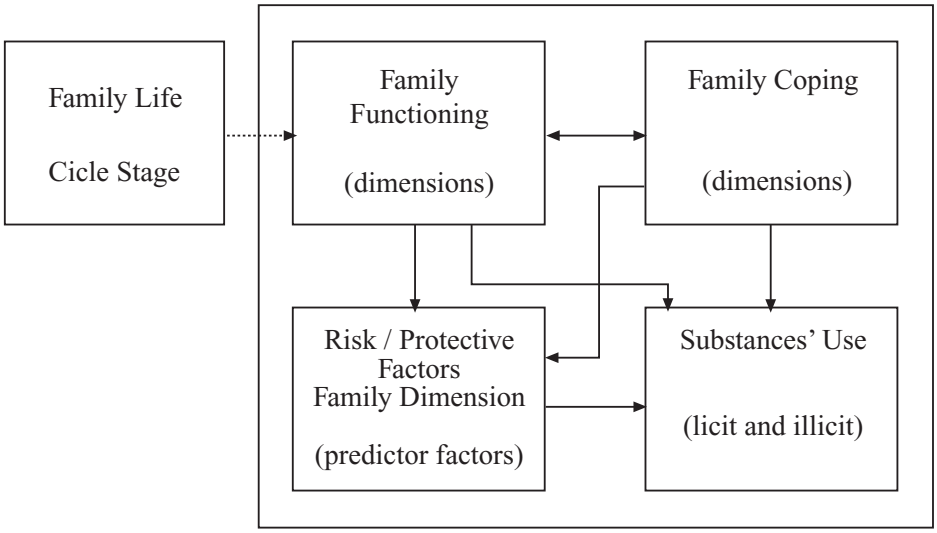


Figure 1
Conceptual Model

Assuming that family life cycle stage interferes with family functioning in its two dimensions (presupposition that we are not going to test), we consider the hypothesis that family functioning, family coping and family risk and protective factors directly affect substances use. On the other hand, the model also bears out the hypothesis that there are some interdependent relations between family functioning and family coping. Between these two variables and the one named family risk or protective factors, however, there would be a one way influence, going from the former to the latter.

The model should be tested at two levels:

- to confirm or invalidate these relations existence and their effects' direction (more conceptual implications)
- to identify, at an actual and articulated level, the relations between family variables (considering its dimensions) and substances use (considering the pattern of each substance use). In other words, we tried to test the model looking at the answer categories as "isolated" variables (more pragmatic implications).

The survey also includes a group of demographic variables, classified as moderating variables, in the sense that, although they are outsiders to the problem, they may influence the results showing interactive effects. For this reason, they are not included in the conceptual model.

2.2 Variables Assessment: The Instruments

We will now proceed to define the variables measurement by indicating the scales and other evaluation instruments to be used for each variable (cf. Project Diagram, Figure 2).

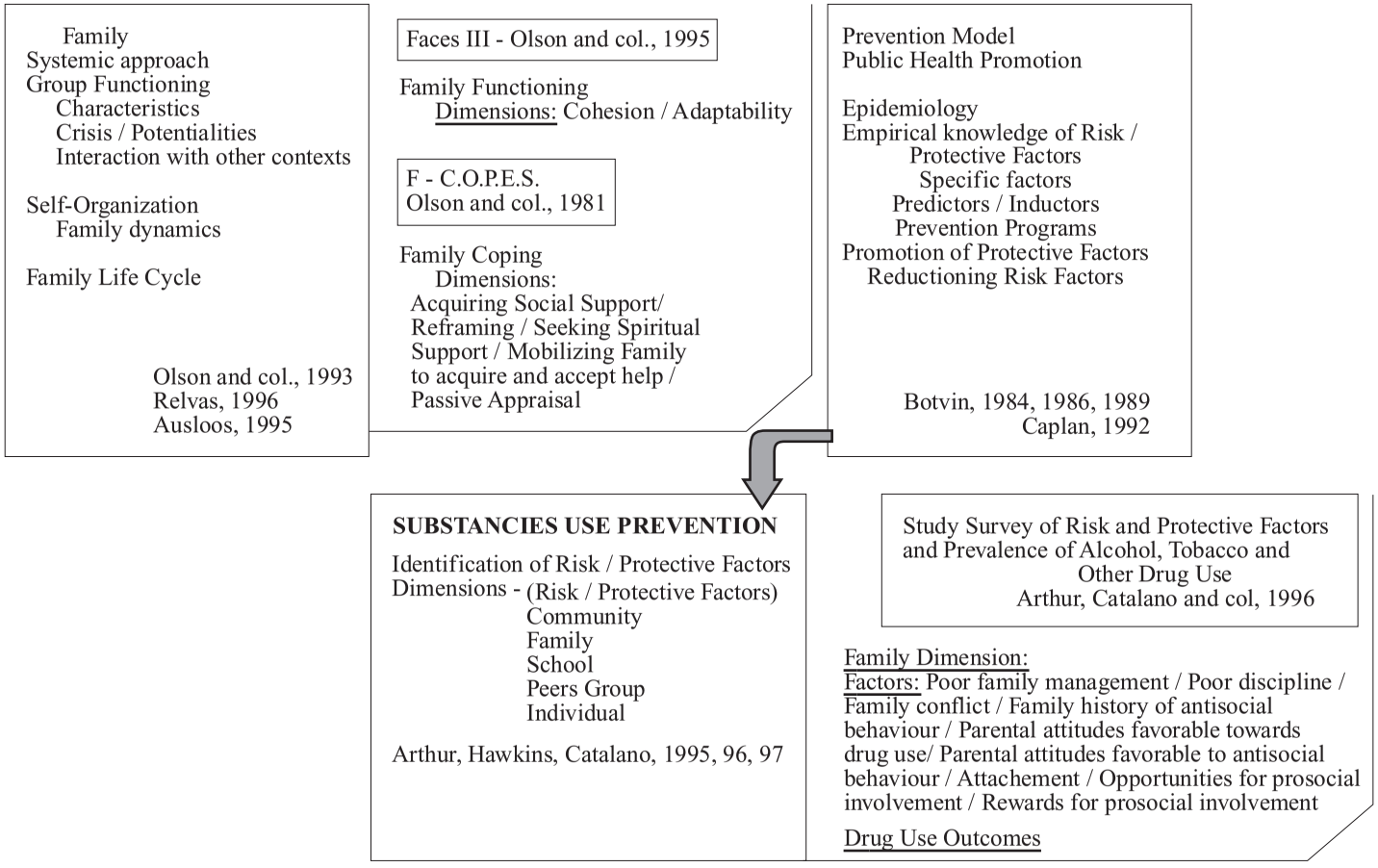
1) ***Family Functioning***; evaluated by FACES III (Family Adaptability and Cohesion Evaluation Scale III) (Olson and col., 1995). This instrument measures the family functioning in two main dimensions: *cohesion*, which evaluates the "bonds" between family members. This aspects is, somehow, related to the "sense of belonging" described by Minuchin (1979); *adaptability*, evaluates the family's capacity to change (flexibility), that is to say, the family ability to alter its interaction rules while the family evolves and its members, gradually, individualise and become autonomous. In this survey context, FACES III also has the advantage of having been studied, by its authors, in relation to different stages of the family life cycle.

In respect to adolescents' substance use, and as we mentioned before, the perception that they have of their family is more important than "what their family really is" (Newcomb and col., 1993). In accordance with this idea and since this instrument allows it, we choose to evaluate, in this variable, the perception that the adolescent has of his family's functioning. This way FACES III is used in the personal or individual version.

2) ***Family Coping***; evaluated by F-COPES (Family Crisis Oriented Personal Evaluation Scale) (Olson and col., 1981). This instrument assesses the perception that the individual has of his family's adjustment, as a group, to the different forms of stress that it has to endure. The family coping, evaluated in five factors, is understood as a group characteristic, somehow stable throughout time and rooted in family history.

Figure 2

PROJECT: FAMILY AND RISK (PROTECTIVE) FACTORS OF DRUG USE BY ADOLESCENTS
THEORETICAL FRAME / EMPIRICAL ASSESSMENT



We drow attention to the fact that these two instruments (FACES III and F-COPES) have the advantage of giving us the measurement rates related to the family as a group, besides being presently used throughout Europe on a large scale (although they originate in the U.S.A.). So they are, therefore, theoretically and empirically studied in the European context.

3) ***Family Risk and Protective Factors*** of legal and illegal substances use during adolescence (family dimension).

To evaluate this variable it seemed to us that the most correct approach would be to use the family component of the instrument developed by Richard Catalano, David Hawkins and Michael Arthur (1997), *Student Survey of Risk and Protective Factors and Prevalence of Alcohol, Tobacco & Other Drug Use* (SSRPF-PATO). According to the information that we were able to obtain, this was the first time that this instrument had been applied in Europe. Obviously, we asked the permission of the authors (Social Research Group, University of Washington) to use it (Annex A).

This is a questionnaire that evaluates the effect of some family functioning aspects in risk and protective terms (poor family supervision, poor discipline, family conflict, family history of antisocial behaviour, parental attitudes favourable to drug use, parental attitudes favourable to antisocial behaviour, family attachment, opportunities for family involvement, rewards for family involvement).

On the other hand, this instrument was created following a complex and interactive approach of the risk behaviours in adolescence, which adjust perfectly with the theoretical model underlying our project. As the authors of the instrument state "(…) the instrument must comprehensively measure risk and protective factors across the domains of community, school, family, peer, and individual as well as a range of health and behaviour outcomes including substance use, violence, delinquency and school misbehaviour. (…) the instrument was designed to be appropriate across all phases of adolescence in order to allow assessment of changes in risk and protective factor exposure associated with development during adolescence", (Catalano, Hawkins and Arthur, 1997:6)

4) ***Substance Use*** *(Annex B)* ***and Demographic Variables*** *(Annex A)*; evaluated by the respective questionnaires included in the SSRPF-PATO (Catalano and col., 1997).

3. METHODOLOGY AND FIELD - WORK

3.1. General Aspects

Aiming to test the conceptual model presented in 1., a field investigation was prepared, subjected to the following characteristics:

- *non-experimental, correlation study*; this survey tries to establish (to test in a quantitative way) the relations between the different operative variables, without manipulating the independent variable. So, the study will allow us to make some predictions without the objective of providing or determining the causality of the relations that will be found;
- *transversal study*; thinking of the assessment moments, we can say that this study relies on the comparative evaluation of groups taken from different age levels. This way the results achieved by assessment instruments at a certain moment-time can be compared;
- *sampling intentional method and group samples*; firstly, a preliminary selection of the target subjects was made (students of the secondary school, at the same age and learning levels), accepting the idea that these are very good representatives of the phenomenon we are studying. Secondly, the sample method took into account that the study's object is the group to which the target population belongs (class / year / school) and not each individual. This kind of sample selection is linked to the method that some authors call "multi-staged" (Almeida and Freire, 1997) because it was made following several sequential stages: city, school, class, age level.

3.2. Research Design and Procedures

The procedures and guidelines defined by this project's co-ordinators, aiming at the rigour and practical value of the information received, are shown in Table 1 (see Annex B for further information).

1. *Translation and back-translation* of the measurement instruments into the languages of the four (4) countries involved in this survey (Portuguese, Spanish, Italian and

French).The final versions, as well their pre-tests, were submitted to a last validity procedure to ensure semantic and formal equivalence (January/February 1998).

Table 1

	Field - Work	**Bibliographic Research**
Jan 98	• Translation and retrotranslation of the instruments :	• Family risk factors in the use of substances (licit and illicit) *researches/ empirical studies *theoretical elements (national authors) • Prevention programs focused on the family * listing/description
	• Sample selection/contacts for application * Ages : 12 - 16 years * School grade : 7º - 10º grade * n= 500 - 520 subjects / per country (x 4 countries) * 100 subjects/ per age (100-12 years, 100-13 years, ...)	
	• Sending the final versions of the instruments to all countries	• Sending the bibliographic reviews to Coimbra
Apr 98	• Instruments application * Anonymity * Classroom - class / collective/ teacher's absence * Application and gathering by project's researcher • Field- work reports preparation	
June 98	• Preparation and construction of the data base * Variables Codification (Annex C) • Instruments scoring • Statistical analysis	
Dec. 98	• Final report Presentation of the field work and results	• Preparing a final text (integrating the 4 bibliographic versions)

2. *Sample Selection*; criteria:

- four European cities - Coimbra, Madrid, Modena, Lyon
- age levels - 7th, 8th, 9th, 10th grades (or their equivalent)
- sample selection per class
- sample stratification -100 subjects grouped in terms of age margin of flexibility up to 10% (older/younger)
- total number of individuals per country/city - 450 – 500 subjects
- global sample number - 1800 – 2200 subjects

Remarks on this criteria definition:

* the selected cities correspond to the location of the four survey groups.

* the definition of the higher and lower age levels of the sample looks for the articulation of several factors: 1) the developmental tasks associated with this stage of the family life cycle – family with adolescent children; 2) the proposed definition for the substances use variable, considering the use of substances such as tobacco, alcohol and marijuana, that statistics show as being used and abused quite prematurely; 3) the theoretical and empirical studies referring to the unequal substances use during adolescence and its respective dominant influences. Those studies indicate a clear and major family influence in lower age levels. We also know that this influence gradually diminishes, while the one performed by the peer group (more important in the late adolescence stages) takes its place (Weiner, 1995).

* if possible, the selected schools and classes should be the same ones that were involved in the survey that took place last year (cf. Presentation and General Considerations).

*it is important to state that some degree of flexibility was used in the approach made to school authorities and subjects' parents and tutors in the different cities, in order to achieve the necessary authorisation for the protocol's application, meeting the legal and cultural specificity of each country. An effort was, however, made in order to have a minimum common procedure: a letter was sent to the schools where the survey's national co-ordinator should present the project and ask for permission and collaboration for its development. He should also ask the school's support in ascertaining the parents, tutors and other legal representative's permission.

3. *Instruments Administration:*

- rules and norms - anonymous answer; collective administration to the selected classes in the school setting; an outside investigator to that school was required to proceed with the instruments administration that must occur in the absence of any other member of the school other than the respondent students;
- administration time - 50-60 minutes (one class time);

- protocol - instruments' sequence administration was defined as follows: demographic data questionnaire; SSRPF-PATODU - Family Dimension (cf. Annex A); F-COPES; FACES III; questionnaire on substances use (cf. Annex B);
- administration period - April – May 1998.

4. *Data Base Construction.*

The data base should be built according to the coding procedures previously defined (cf. Annex C) in the Statview SetGraphics or Excel Computer Programs.

5. *Re-coding and Statistical Analysis*

The data re-coding is based on the scoring procedures required by the instruments characteristics (cf. A. Instruments - F-COPES and FACES III). The SSRPF-PATODU is an exception because, to the best of our knowledge, it is the first time that it has been applied in Europe. The raw data achieved will be subjected to a factorial analysis that will allow us an adequate assessment and interpretation of the data obtained with this scale, in relation to our sample. So, the sample's characterisation on this subject, will follow the dimensions found in our own analysis. The remaining variables did not suffer any sort of codification.

The methodology and statistical procedures, following the survey's characteristics that have already been referred to (correlation, non-experimental) will be the following: 1) descriptive methods - frequency and variance analysis; 2) correlation methods - correlation coefficient, factorial, variance and regressions analysis.

3.3 Field-Work Reports*

3.3.1. Coimbra

In Portugal this survey included all secondary and Basic Schools from Coimbra.

In order to intervene in the schools it was necessary to have the pemission of the schools authorities (Regional Department of Education) and also of the schools Administration Board. After which it was possible to schedule the visits to the different schools.

Obtaining permission in these schools was easier because there was personal knowledge of the majority of the schools' administration and also because this survey followed a previous one already undertaken in each of the schools.

Contact with the schools administration was made in person and directly with the Principal, or someone representing him.

The investigators carried with them a written document describing the project (its aims, theoretical and methodological prerequisites, population and sample confidentiality) that were delivered to each of the schools' principals.

At the same time the investigators delivered a letter to be signed by them and given to the Parents Association informing them of all stages and aims of this survey.

The Parents' Association informed the parents of what was going on.

The teachers of the classes chosen for the survey were also informed of the days and hour of our visit and also of the conditions required for the application of the questionnaires.

The preparations for the application of the questionnaires were meticulously prepared and received the cooperation of two clinical psychologists, one of whom was also a teacher and familiar with all the schools involved.

Each school was asked to provide information of the classes with students between 12 and 16 years of age. This way it was possible for us to establish the survey's class selection criteria for each school. The classes were then chosen in order to have a sample of around 100 pupils for each required age level. In the schools where the pupils had already participated in the previous year's survey, we asked permission to also include them in the target population for this survey.

The questionnaires were applied in the classroom during a 50 minute period. The teacher remained in the classroom only for the necessary time in order to introduce the psychologists and left the room before the questionnaires were delivered to the students. The students that did not correspond to the sample's criteria also left the classroom at the beginning of the questionnaires application.

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* A regrettable problem in the gathering of the material/data prevents us from presenting Madrid's work field report.

Only in two schools was it possible to assemble more than one class at the same time in order to apply the questionnaires. Only in one school was it necessary to gather in one classroom a group of pupils coming from different classes, to undertake the same task.

After having decided the day and hour on which to apply the questionnaires, the teachers responsible for the classes during that time were informed of the investigators aims. After the authorities received the teachers agreement, the investigators were introduced to them. After informing them of the conditions in which to apply the questionnaires the investigators accompanied the teachers to the classroom and were introduced to the pupils.

When the teacher left the room, the investigators remained alone with the pupils and explained to them the aims and the survey's guarantees, mainly the confidentiality of all the answers. After all the pupils were settled the investigators gave them the questionnaires. Before they filled them in the pupils were given an explanation of its items and were also informed that they could always ask for personal explanations given by the psychologist present in the classroom. Instructions were also delivered for the questionnaires complete filling in. At the end of the time, the questionnaires were collected as the pupils left the classroom.

A total of 572 adolescents cooperated with us by filling the questionnaires in.

The questions and doubts that arose during the completion of the questionnaires:

To explain: rules and precise/clear rules (precise contents)

To explain: ilicit (= Ilegal) drugs (toxic substances?) (they were not familiar with the word illicit).

3.3.2. Modena

Under the effective profile, it is important to underline that the research has been achieved by adhering to the stated dates and times, thanks to the previous contacts and relationships made by the Italian Head of research, in re!ation to the previous inquiry carried out last year, on behalf of IREFREA-Itália, and financed by the EU, and carried out in collaboration with the Provveditorato agli Studi of Modena.

Due to the very strict rules that control Italian state schools, it would not in fact, have been possible to achieve the empiric inquiry, object of the research, without making contacts with the Authorities, and sending the necessary formal requests to the different school department in the December that precedes the year in which the research is carried out. It might be advantageous to take this information into account with reference to the planning of future inquiries, above all if they are referred to further analysis in fields in close proximity to the schoolchildren, such as their families, peer groups, etc..

For this reason, the research has been presented from the point of view of a thorough and specific study of the theme before being analysed, a factor that, although exceptional, has allowed to have the use of previous authorisations.

Among the most obvious aspects, we would like to point out the wide opening and the substantial interest shown by the Italian school Authorities (and by the parents delegations) towards the research achievement. This has produced a concrete availability and an active cooperation to deal successfully with the necessary bureaucratic procedure.

The representatives of the Provvechtorato agli Studi have taken a great interest in the results of the research and the observations that will emerge from it. Therefore, there is an opportunity to provide them with information about this matter. In the future they may support further and more productive and thorough investigations for the *research*.

Research Methodology

Soon after the presentation of the research structure, made by the Head of research for the representatives of the Provveditore agli Studi, the questionnaires, which would have been given to the children during the inquiry, had been translated into Italian and given to the Principals of the schools too (necessary procedure in order to obtain the authorisation).

The selection of the schools, objects of the inquiry, was carried out (on the grounds of the information in possession of the Provveditorato agli Studi) from the point of view of obtaining the most detailed picture on the different social and cultural aspects that make up the social fabric of the town Modena.

For this reason, the children the research has been directed at, has been selected with respect both to their belonging to the 12, 13, 14, 15 and 16 age band and to their attending schools of different cultural (and social) organisations. In the inquiry, therefore, primary schools have been included (1) from more or less wealthy areas, and secondary schools from more theoretical cultural areas (licei) or, on the other hand, of a more pragmatic character (technical schools), or of an intermediate character (teacher training college).

The inquiry's achievement involved, as did its subsequent phase, concrete organization within the different schools, both under a chronological and logistic profile. Indeed, the head of research expressly asked that at the moment of the questionnaires distribution, the children would not be gathered into large groups, and that, on the contrary, they would be held, as often as possible, in their classes, in order to avoid conditions that could encourage carelessness or establish a playful atmosphere.

Notable figures have been the school principals and, also, the teachers with this specific appointment, who were expressely asked by the researchers not to be in their classrooms during the distribution and carrying out of the questionnaires, so that any influences or conditioning phenomena (even if unconscious) from the figures who regularly assume an authoritative role with the children, would be avoided.

Empiric enquiry development and achievement difficulties: Analysis and discussion.

The overall sample was made up of 400 subjects, aged 12, 13, 14, 15 and l6, and attending the 2nd and the 3rd classes at the primary school, and the lst, 2nd and 3rd classes at different state secondary schools in Modena.

Soon after having defined the data, the final sample amounted to 332 subjects, with a low percentage incidence both of absent subjects when the questionnaires were being distributed and completed, and of questionnaires that needed nullifying, during the analysis of the information.

With regard to this, it is, furthermore, necessary to point out that the distribution both of the absent subjects and the nullified questionnaires has been specifically correlated to social and cultural characteristics of schools, inquiry objects, since it has been concentrated in the two samples of schools, which are the most distinctive in terms of problematics.

During data collection, the head of research and the researchers noticed in sample groups' subjects a substantial availability- in general terms - (wich should be understood as an absence of a more or less overt display of antagonistic attitudes). That was different, however, according to both age variables and to children's social and cultural characteristics.

Although, researchers have stated their availability to provide every kind of explanation, an attitude of acceptance of a more rigid from children of 12 and 13 year classes has been observed. They are comprehensively more used to relations and contexts, in which the organisation is run by and instructions are given by other people (parents, teachers, sport trainers in agonistic or players' groups, priests or cathechists in porisch groups, etc.).

In these age-groups, therefore, children asked for help above all about technical aspects of questionnaires, and difficulties that emerged were of objective comprehension difficulty. In these contexts, therefore, the different social and cultural arrangements of school, in which the survey was carried out, had a little influence.

It is worth pointing out the attitude of the subjects from 14 year-old. They showed a slightly more mature (and active) participation, that was further supported by the presence of good characteristics in social and cultural levels. In these subjects, therefore, these characteristics seem to have played a significant role.

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(1) The Italian word is "Scuole medie inferiori". According to the Italian school organisation after elementary school (which lasts five years), the schoolchildren attend a three year "middle school", before entering secondary school. (translator's note).

On the other hand, a more detached participation was registered in the classes of 15 and 16 year old (in which, furthermore it is important to draw attention to the quite large presence of one-year-older repeat-students).

In these last two age-bands, being a member of a higher or lower social and cultural context, seems to have a specific incidence. Indeed, subjects of first group of schools (teacher training college) showed a more detached participation, although within the boundaries of politeness, while in second group of schools (technical schools), children sometimes had a coinceited manner or mocking attitude, which could also be distinctly noticeable.

Finally, we should point out the positive effect that the inquiry seems to have had by focusing exclusively on the children, without parental interference. With regard to this, it has been observed that the subjects have been more responsible, and that a relaxed atmosphere and an atmosphere of clarity has characterised the compilation of questionnaires.

3.3.3. Lyon

Application of the instruments.

The questionnaire was generaly well accepted by adolescents. They were challenged by the different items. They were on the whole very flattered to participate in a European investigation. However, when they had to talk about their own family, it was always more difficult to speak about themselves: to speak about family, the notion of normality, “ What’s a normal family?”, to " live in a monoparental family ", etc...

The other aspect that emerged from the questioning of teenagers, is the proximity of certain items, which led them to difficult answers.

Some points are susceptible to lead to mistakes: ex: the nuance between "never" and "hardly ever". Some questionnaires were unclear (probably due to problems with the translation), ex.: We always ask the same questions.

Finally, there are some items refered to practices that they are not used to.

Remarks made during the application of the questionnaire

IREFREA, 1998

At 12 years old

In some questionnaires one can note that youngsters seem "shocked" facing the direct enough character of certain questions, notably those dealing with the consumption of drugs (q. 105-106).

They are not content with answering or tiking the answer, so they write their answer in a longer form to explain their feelings, for example add a spontaneous commentary "there were not any opportunities for me to take a drug", or "I didn’t answer because I am not an addict and I have never taken any drugs ", "you took me for that, you are mad!" "never in my life"...

Otherwise, in questions in the second part, some spontaneously add some personal commentaries, more precisely with questions related to the help of others, of neighbours, which is seen as moral and proper behaviour.

For question 99 (How often have you smoked in the last few days?) many tick the answer "not at all", but add a commentary, of the kind "of course".

At 13 years old

They answer questions 1O5-lO6 more systematically but their answers are more concise, "no, never,...", without added explanations like the 12 year old.

On the other hand, a lot of them got confused with question 105 "How many opportunities...", they understand "Where" or "When" and answer mentioning a place "on the lawn, in the W.C." or an opportunity "during a rave, at a party, at a friend's house".

Like the 12 year old, for certain questions of the second part, they add an explanation in some questions related to consumption or to religion, they put remarks like “mind your own business”, “don’t be nosey”, “What about you?” .

At 14 years old

They made less spontaneous commentaries at the end of the questionnaire. Nevertheless some confusion between "In how many times..." (q. 105) and "Where and When", was evident.

Questions 56-58 related to the help of neighbours (food) are those that provoked spontaneous remarks.

At 15 years old

Questions related to religion (70-74-77), saw some remarks being made such as interjections "No!..", "Never". Some spontaneous remarks to the question 105, "Never, do you think we are delinquents ?", were made.

At l6-17 years old

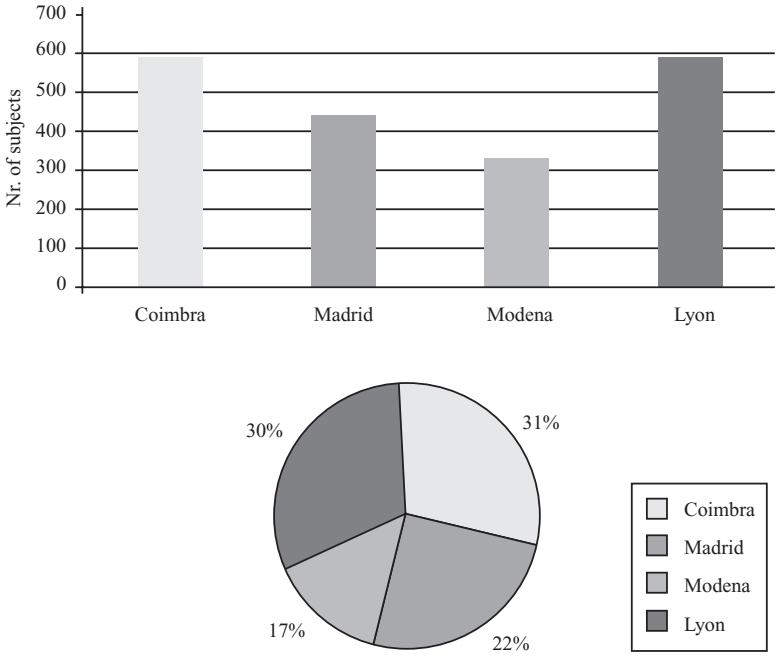
No spontaneous commentaries.

4. SAMPLE'S SOCIODEMOGRAPHIC CHARACTERISTICS. DIFFERENCES BETWEEN COUNTRIES.

1948 subjects, distributed by four (4) cities (countries), as shown in Graphic 1, constituted the global sample (total n).

Graphic 1

Subjets per City



Looking at Table 2 it is possible to verify that, although it was planned to study the age group (12 years old, 17 years old), 0,77% of the sample (15 individuals) are more than 16 years old. Although this is a very low percentage score, we could not proceed without referring to it.

Considering Table 3 it is possible to see that the mean value age in the sample is, almost 14 years old (13,9). Analysing this data per country, it is possible to verify that the individuals' mean value age shows the lowest score in Spanish and French sub-samples (13,7 years old) and the highest one in Italian sample (14,3 years old).

A.1) **Age** (V 3)

Table 2
Subjects' Age per City

City / Age	Coimbra		Madrid +		Modena *		Lyon		Totals	
	n	%	n	%	n	%	n	%	n	%
12 Years	106	18.03	74	16.89	36	10.84	125	21.19	340	17.50
13 Years	124	21.09	133	30.37	56	16.87	136	23.05	449	23.05
14 Years	130	22.11	128	29.22	88	26.51	156	26.44	502	25.77
15 Years	115	19.56	67	15.30	80	24.10	126	21.36	388	19.92
16 Years	111	18.88	35	7.99	55	16.57	47	7.97	248	12.73
>16 Years	2	.34	0	0	13	3.92	0	0	15	.77

+ 1 missing
* 4 missing

Table 3
Subjects' Age: Mean values and Variance Analysis (Fisher-Test)

Global Sample	Coimbra	Madrid	Modena	Lyon
m=13.9 ; s.d.=1.30	m=14.0 ; s.d.=1.38	m=13.7; s.d.=1,16	m=14.3; s.d.=1.33	m=13.7; s.d.=1.23
Coimbra		.16*	.17*	.14*
Madrid	.16*		.18*	.16*
Modena	.17*	.18*		.17*
Lyon	.14*	.16	.17*	

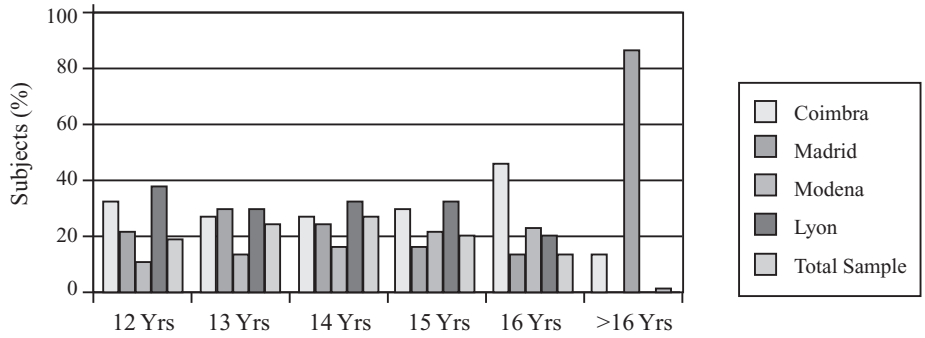
* Significant at 95%

Except for French and Spanish sub-samples all the other differences are statistically significant – as we can also verify in Table 3. It is, then, possible to conclude that the Italian sub-sample presents the highest statistically significant mean value average, followed by the Portuguese and finally Spanish and French.

Graphic 2 allows us to analyse the age distribution per country in global sample. It is interesting to notice that almost half of the 16 years old subjects (44,76%) are Portuguese. Also interesting are the scores in the Italian sample: 80% of the non-answers in the global sample and almost 90% of the 16 year old or over subjects (86,67%). To a certain extent, this data clarifies what has just been mentioned about the mean value age in the sample.

Graphic 2

Subjects' Age per City vs Sample Totals



A. 2) **Subjects School Grade** (V 4)

As expected thinking of an eventual association age / school level, the mean value school level in the global sample lies between the 8th and 9th grades of schooling (2,62) (cf. Table 4).

Table 4

Subjects' School Grade per City

City / Age	Coimbra		Madrid		Modena		Lyon		Totals	
	n	%	n	%	n	%	n	%	n	%
7th Grade	86	14.73	126	28.77	62	18.67	98	16.61	372	19.14
8th Grade	228	39.04	182	41.55	72	21.69	168	28.47	650	33.44
9th Grade	0	0	102	23.29	81	24.40	191	32.37	374	19.24
10th Grade	186	31.85	1	.23	116	34.94	132	22.37	435	22.38
6th Grade	84	14.38	19	4.34	0	0	0	0	103	5.30
Profes. Scho.	0	0	4	.91	1	.30	1	.17	6	.31

According to Table 4 it can be said that the largest percentage of adolescents represented in our sample attend the 8th grade, and the smallest percentage of all attend the 6th grade (which only occurs in Portuguese and Spanish samples – 5,3% of the total score). This level of schooling was not foreseen in the initial stratification; the same happening with the "professional education" category, which represents a very small percentage of the target population (0,31%).

Table 5

Subjects' School Grade: Mean values and Variance Analysis

Global Sample	Coimbra	Madrid	Modena	Lyon
m=2,62 ; s.d.=1.19	m=2.92 ; s.d.=1.36	m=2.11; s.d.=1.03	m=2.76; s.d.=1.13	m=2.61; s.d.=1.0
Coimbra		.000008*	.320523*	.000035*
Madrid	.000008*		.000008*	.000008*
Modena	.320523*	.000008*		.000008*
Lyon	.000035*	.000008*	.302989*	

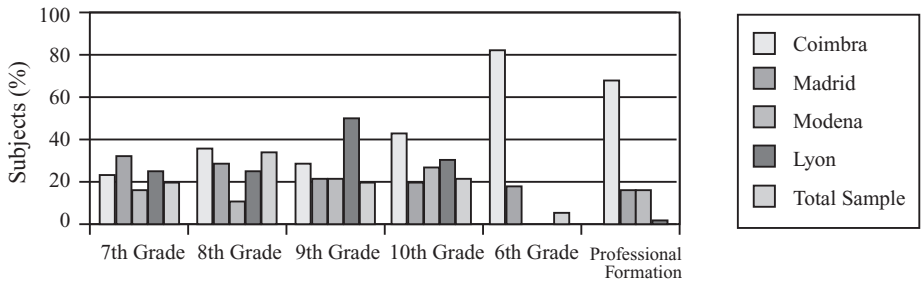
Differences are significant at $p < .05$

Considering the results of the variance analysis, we may say that in Portuguese and Italian sub-samples the subjects schooling level is significantly superior to the one in the other countries and that the opposite happens in the Spanish sample (it is significantly inferior).

Some of the most interesting particularities to refer to from Graphic 3 are: 1) the 9th grade of schooling is not present in Portuguese sub-sample; at the same time, French subjects constitute more than half of the global sample at this grade; 2) a great percentage of the 6th grade pupils are Portuguese (81,55%); 3) the Portuguese sample does not include any subjects having "professional education", which, on the other hand, constitute the majority of the Spanish sub-sample (66,67%); this category is also present in French and Italian samples (each one representing 16,67% of the total score of this schooling level in the global sample); 4) the totality of "non-answers" arises in the Spanish sub-sample.

Graphic 3

Subjects' Gender per City (%)



After having described the sample(s) in what respect to the total number of subjects per country, age and schooling, it is important to notice that the first three criteria for the samples' selection were not entirely respected. This justifies the finding of statistically significant differences between the cities sub-samples (which may also be explained by the high number (*n*) of the sample(s)). Thus, and because there was little possibility of comparing sub-samples, we choose to proceed studying the global sample's data and each cities' data *per si* (since the beginning we have had this in mind) and not so much making a comparison between the four cities. This way, we can also consider and analyse all the information received.

On the other hand, and in theoretical terms, from these three criteria, the most important was the one related to age level and its lower limit (12 years old, being seen as the beginning of both adolescence and of substances use, mainly alcohol and tobacco). Since that limit was respected, it did not seem important to withdraw the 17 year old subjects. That decision was also taken because if we did the Italian sample, which was already the smallest one in that survey, another way what the individuals score per country is concerned, be reduced even further.

3) **Subjects Gender** (V 5)

Table 6

Subjects' Gender per City (%)

City / Gender	Coimbra		Madrid +		Modena *		Lyon #		Totals	
	n	%	n	%	n	%	n	%	n	%
Female	298	50.68	199	45.43	133	40.06	312	52.88	942	48.36
Male	290	49.32	231	52.74	175	52.71	275	46.61	971	49.85

+ 8 missing

*24 missing

3 missing

Although this was not a stratification criterion, it is interesting to verify that the female and male adolescents are represented by very similar values. This similarity is larger in Portugal and smaller in Italy (cf. Table 6). In this variable, then, there are no significant differences found among the four sub-samples.

4) **Family Aggregate (family members living with...)** (V 6)

Table 7

Subjects' Nuclear Family per City

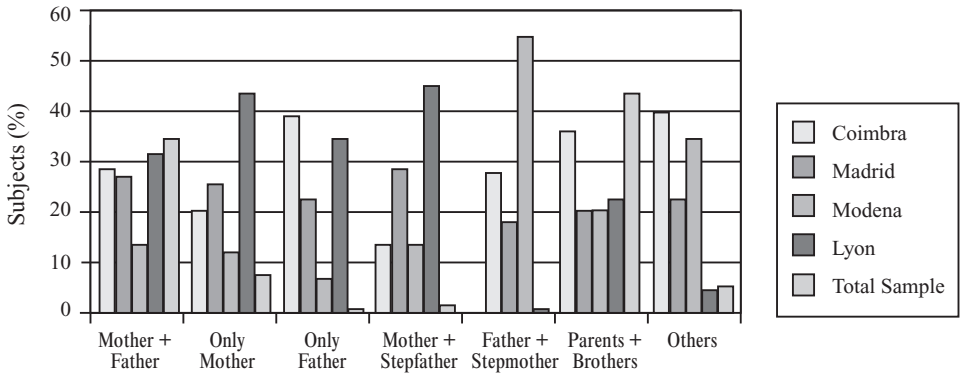
City / Living With	Coimbra **		Madrid +		Modena *		Lyon #		Totals	
	n	%	n	5	n	5	n	5	n	%
Mother + Father	192	32.65	178	40.64	88	26.51	213	36.10	671	34.45
Only Mother	32	5.44	39	8.90	19	5.72	68	11.53	158	8.11
Only Father	7	1.19	4	.91	1	.30	6	1.02	18	.92
Mother + Stepfather	5	.85	10	2.28	5	1.51	16	2.71	36	1.85
Father + Stepmother	0	0	3	.68	2	.60	6	1.02	11	0.56
Parents + Brothers	298	50.68	180	41.10	179	53.92	193	32.71	850	43.63
Others	40	6.80	22	5.02	34	10.24	5	.85	101	5.18

****14 missing**
+ 2 missing
***4 missing**
 # 83 missing

By studying Table 7 it is possible to verify that the subjects' majority are divided into two important categories of family aggregate: parents or parental couple, the subject and his (her) brothers and sisters (43,63%); parents or parental couple and the subject (34,45%). The remaining possibilities emerge in much smaller and variable percentages. However, from the latter ones, two other kinds of family aggregate attract our attention: "mother and individual" (8,11%) and "others" (grandparents, uncles, etc., 5,18%).

Graphic 4

Subjects' Nuclear Family per City vs Sample Totals



From Graphic 4 the following aspects attract our attention: 1) the "balance" within the Spanish sub-sample (all different kinds of family aggregate are within a 20% range); 2) the "weight" that "incomplete" families (only father or mother, 76,37% of the global sample) or reconstructed families (mother and stepfather, 98,99% of the global sample) have in the French sub-sample; 3) the importance of the Portuguese sub-sample in "other" kinds of families (39,60% of the global sample).

5) **Siblings** (V 7 and V8)

*Table 8**

Siblings (Older/Younger): in each sub-sample (a); per country (b)

City / Nr. Of Siblings		Coimbra		Madrid		Modena		Lyon		Totals	
		Older (%)	Younger (%)	Older (%)	Younger (%)	Older (%)	Younger (%)	Older (%)	Younger (%)	Older (%)	Younger (%)
0	a)	41.96	53.22	38.13	47.03	33.43	31.93	32.77	33.45	36.74	41.37
	b)	32.52	34.91	23.93	26.34	15.90	13.55	27.65	25.19		
1	a)	42.88	37.82	32.42	38.13	5.42	7.83	31.07	31.75	30.26	30.66
	b)	40.35	33.80	24.70	29.09	3.13	4.53	31.83	32.58		
2	a)	90.80	5.65	13.47	8.68	2.71	1.20	15.79	19.35	11.26	9.88
	b)	24.77	15.68	27.57	20.54	4.21	2.16	43.46	61.62		
3	a)	2.59	1.36	6.62	2.97	0	0	7.47	7.64	4.58	3.47
	b)	16.09	10.77	33.33	20.00	0	0	50.57	69.23		
4	a)	.74	0.58	3.20	.91	0	.30	4.41	2.38	2.32	1.18
	b)	9.09	13.64	31.82	18.18	0	4.55	59.09	63.64		
5	a)	.37	0	2.74	0.23	.30	.60	3.40	.68	1.84	0.37
	b)	5.71	0	34.29	14.29	2.86	28.57	57.14	57.14		
> 6	a)	.74	.19	1.60	.46	0	0	2.55	1.70	1.37	0.69
	b)	15.38	7.69	26.92	15.38	0	0	57.69	76.92		
Totals (N)		541	513	438	438	332	332	589	589	1900	1872

*The percentages on the table refer just to the valid answers. In the sample of Modena there are a lot of missing (193), corresponding to 86% of the total of the missing cases in the global sample.

Looking at Table 8 we can verify that the largest percentage of siblings shows up in categories "0" and "1" brother or sister taken together (older 67% and younger 72,43%). Next comes the category "2 siblings" showing lower percentages (in both categories - older and younger – the numbers are around 10% - 11%). We may conclude, then, that in our sample, the small number of siblings is the most frequent.

In view of the percentage distribution in each sub-sample, we may observe that Portuguese, Spanish and French sub-samples follow the tendency of the global sample: most of the adolescents either don't have any older or younger sibling or have just one. This shows that the number of siblings represented in these cities samples is not very large (0, 1, 2 or 3 siblings). In the Italian sample, and in spite of the large number of non-answers (58,13% in both hypothesis), the data seems to indicate a large quantity of only child's and a percentage of siblings lower than in the other samples.

Continuing to look at Table 8, with regards to the contribution of each of the sub-samples to the global sample is concerned, it is verified that the French sample contributes greatly to the number of adolescents in the global sample with 3, 4, 5, 6, or more older siblings (between 50% and 58%). In contrast to this, the Italian sample shows the smallest contribution in those same categories (0% - 2,86%). The Portuguese sample contributes with almost half of the percentage (40,35%) of the number of adolescents with an older brother and the Spanish sample contributes, apparently in a balanced way, to all this variable's categories (from 0 to > 6 older siblings).

The study of the data referring to the younger siblings follows the same tendency shown in the previous analysis (referred to the older ones). The exception is made to the smaller "weight" of the Portuguese sample in the category "one younger sibling" (33,8%) and to the strong contribution of the Italian sample to the category "5 younger siblings" (28,57%). We still emphasise the importance of this sub-sample to the non-answers (91,9%, older siblings; 88,53%, younger siblings)

Accordingly to what we have been pointing out and observing Table 9, the mean value number of siblings in Italian sample is lower than in all the other samples (0,51 and 0,53). On the other hand, the highest mean values come in the French sample (older – 2,48; younger – 2,23). There are, however, highly significant differences among all the sub-samples.

Table 9

Siblings: Mean Values and Variance Analysis (Fisher - Test)

Global Sample		**Coimbra**		**Madrid**		**Modena**		**Lyon**	
Older	Younger	Older	Younger	Older	Younger	Older	Younger	Older	Younger
m=2.05 s.d.=1.30	m=1.81 s.d.=1.04	m=1.78 s.d.=0.96	m=1.55 s.d.=0.77	m=2.16 s.d.=1.44	m=1.7 s.d.=0.94	m=0.51 s.d.=0.72	m=0.53 s.d.=0.74	m=2.48 s.d.=1.73	M=2.23 s.d.=1.45
Coimbra				.17*	.14*	.19*	.15*	.16*	.13*
Madrid		.17*	.14*			.19*	.15*	.16*	.13*
Modena		.19*	.15*	.19*	.15*			.18*	.15*
Lyon		.16*	.13*	.16*	.13*	.18*	.15*		

* Significant at 95%

Continuing our analysis of Table 9 we verify that the global sample shows a mean value of 2,07 older siblings and a mean value of 1,8 younger siblings. This shows a slightly greater representation of subjects with older siblings.

6) **Parents Schooling Level** (V9 and V10)

Looking at Table 10 we can say that most percentage of schooling level from both subjects' parents of the global sample falls within category 1, i.e., it corresponds to the basic level (about 23% - 24%). However, the category "doesn't know" (the schooling

*Table 10**

Parents Schooling Level (%): in each sub-sample (a); per country (b)

City / Ed. Level		Coimbra		Madrid		Modena		Lyon		Global Sample	
		Father %	Mother %	Father %	Mother %	Father %	Mother %	Father %	Mother %	Father %	Mother %
Completed Grade School or less	a)	40.72	43.88	22.60	22.20	24.40	22.89	4.26	4.92	22.84	23.67
	b)	53.83	55.97	22.30	21.04	18.24	16.49	5.63	6.29		
Some High School	a)	8.35	7.14	10.73	13.96	8.73	9.94	4.77	6.61	7.87	8.98
	b)	32.03	24.00	30.72	34.86	18.95	18.86	18.30	22.29		
Completed High School	a)	8.35	7.99	12.56	18.76	25.00	30.12	4.60	6.78	11.01	13.81
	b)	22.90	14.47	25.70	30.48	38.79	37.17	12.62	14.87		
Some College	a)	1.87	1.36	4.57	2.75	6.63	5.42	4.43	4.24	4.06	3.23
	b)	13.92	12.70	25.32	19.05	27.85	28.57	32.91	39.68		
Completed College	a)	1.87	3.74	5.71	4.81	17.47	15.66	4.43	5.76	6.17	6.62
	b)	9.17	17.05	20.83	16.28	48.33	40.31	21.67	26.36		
Professional or Graduate after College	a)	26.75	26.53	5.48	3.66	2.41	3.01	23.17	21.69	16.72	15.91
	b)	48.31	50.32	7.38	5.16	2.46	3.23	41.85	41.29		
Does not Know	a)	11.58	8.84	37.89	33.63	15.36	12.65	53.83	49.49	30.81	26.23
	b)	11.33	9.75	27.66	27.57	8.	7.87	52.66	54.78		

* The percentages in the table refer just to the valid answers. The percentages of missing is very low (mother schooling level 1,54% missing in the global sample; father schooling level 1,16% missing in the global sample).

level of parents) represents the greater percentage of subjects in the sample (30.81%-father; 26.23%-mother). It should also be noted the most-likely percentage's proximity of schooling level of mother and father in all considered categories, as well as the fact that both mother and father with higher levels of education (post-graduate) is the second most representative, following the basic level. It seems, then, that the great majority of parents of our subjects (about 40% of the total, taking into account that there is no information on about 30% of subjects' parents schooling level) are situated at the lower and higher extremes of the schooling level parameters; the aggregate of the intermediate possibilities are represented by 30% of the answers.

The Portuguese sample presents a distribution which follows this general trend, with a representation of basic schooling level of approximately 40%-45% of the total of the sub-sample, while the intermediate levels present considerably low percentages. After Portuguese, Spanish and Italian sub-samples show the highest percentages' lowest level of education (about 22%-24%, therefore almost half of the percentage in the Portuguese sample). The French sample, on the contrary, shows, in this first category, a very low percentage (about 4%). It should also be noted that Italian sub-sample presents relatively high percentages in categories 3 (completed high school) and 5 (completed college), in comparison to the other sub-samples.

Briefly, 1) the Portuguese sample presents the highest percentages of all countries in higher levels of parental schooling level (which may be related with the university characteristics of Coimbra); 2) the parents of French subjects are hardly represented in the category "basic level" and highly represented in the "post-graduation" one, whereas the distribution of the Spanish sample follows the inverse trend (the percentage score decreases as the level of education rises); 3) as for the Italian sample, it seems to be difficult to define a pattern of percentage distribution in terms of schooling level of the subjects' parents; 4) finally, we stress the great percentage of subjects who do not know their parents' schooling level, especially in French (between 50% and 54% for mother and father, respectively) and Spanish sub-samples (between 34% and 38% for mother and father, respectively).

Table 11

Parents Schooling Level: Mean Values and Variance Analysis (Fisher-test)

Global Sample		**Coimbra**		**Madrid**		**Modena**		**Lyon**	
Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother
m=4.39 s.d.=2.45	m=4.16 s.d.=2.43	m=3.45 s.d.=2.45	m=3.32 s.d.=2.42	m=4.29 s.d.=2.51	m=3.99 s.d.=2.45	m=3.54 s.d.=2.10	m=3.40 s.d.=2.00	m=5.88 s.d.=1.75	m=5.61 s.d.=1.91
Coimbra				.28*	.28*	.31	.31	.26*	.26*
Madrid		.28*	.28*			.32*	.33*	.28*	.28*
Modena		.31	.31	.32*	.33*			.31*	.31*
Lyon		.26*	.26*	.28*	.28*	.31*	.31*		

* Significant at 95%

As it would be expected, Table 11 also confirms the strong contributions from the Portuguese sub-sample to the lowest parents' schooling level on the global sample (53.83%-father and 55.97%-mother). The opposite happens in the French sub-sample (5.63%-father and 6.29%-mother). The great contribution of Portuguese and French sub-samples for the highest level of education of the parents (respectively: 48.31%-father and 50.32%-mother; 41,85%-father and 41,29%-mother) should also be stressed.

The analysis of Table 10 reflects on the values shown in Table 11 (although category 7 "doesn't know" does not allow for a linear reading of the data, which could only occur if category 7 had been eliminated). Nevertheless, the Portuguese sub-sample presents a lower average in this variable, while the French sub-sample shows the highest one (for either mother and father schooling level), not only inter-average sub-samples' mean values, but also in relation to the global sample's mean value. The Spanish sub-sample is the one which presents the mean values closer to the global sample, and the Italian one is placed between the Spanish and the Portuguese one. However, between the Portuguese and Italian samples there are no statistically significant differences, in terms of mean values for both mother's and father's schooling levels.

7) **Parents Age** (V12 and V13)

Table 12
Parents Age per City (%)

City / Age	Coimbra		Madrid		Modena		Lyon		Global Sample	
	Father %	Mother %	Father %	Mother %	Father %	Mother %	Father %	Mother %	Father %	Mother %
20 – 30 Yr.	.18	1.38	.25	1.45	0	.62	.18	1.43	.16	1.28
31 – 40 Yr.	31.75	48.44	33.91	50.6	22.33	41.3	27.62	49.02	29.37	47.87
41 – 50 Yr.	58.02	45.5	55.53	41.69	64.47	53.11	56.91	44.21	58.26	45.58
51 – 60 Yr.	8.82	4.67	9.09	5.54	12.58	4.97	12.15	4.63	10.52	4.9
61 – 70 Yr.	1.23	0	1.23	.72	.63	0	3.13	.71	1.69	.37

Table 12 shows how the great majority of adolescents' parents in the global sample lies in the age group of 31-50 years. It should be noticed that 58.26% of fathers are 41-50 years old, whereas mothers are distributed through relatively identical percentages in both categories (31-40 and 41-50 years old) showing higher percentage scores in the first age group. Thus, it seems that, in our sample, mothers are relatively younger than fathers.

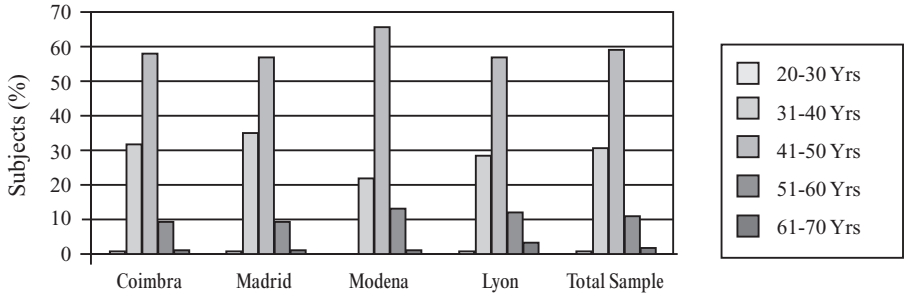
Analysing the percentages of sub-samples by city, the trend is similar. It is clear, however, that there is a higher percentage of younger fathers in Portuguese and Spanish

sub- samples (i.e., class age 31-40 years old). Italian sub-sample is the only one where the percentage of mothers from the age group 41-50 years old is higher than in age group 31-40 years old.

The analysis of Graphic 5 clearly shows the greater contribution from Italian and French sub-samples to the percentages of the higher age groups, particularly the latter

Graphic 5

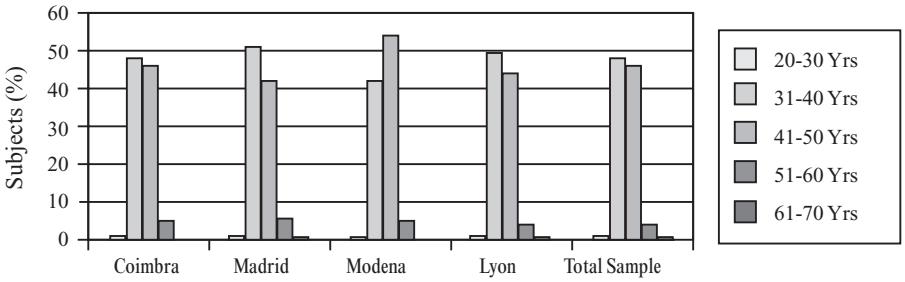
Father's Age Per City vs Sample Totals



(51-60 years old - 34.2%; and 61-70 years old - 54.84%). We can then conclude that the older parents of the sample come mainly from the French sub-sample. The contribution of the mother's age follows a less differentiated distribution in that sense, with the exception of French and Spanish data, as these are the only ones that contribute to the last class age (cf. Graphic 6).

Graphic 6

Mother's Age per City vs Sample Totals



Finally, it should be noted, in both father and mother's age, that the Italian sub-sample contributes with very low percentages towards all age groups: this is due to the low number of answers.

Table 13

Parents Age: Mean Values and Variance Analysis (Fisher-test)

	Coimbra		Madrid		Modena		Lyon	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother
	m=1.78 s.d.=.61	m=1.55 s.d.=.58	m=1.76 s.d.=.62	m=1.54 s.d.=.61	m=1.91 s.d.=.59	m=1.63 s.d.=.58	m=1.87 s.d.=.64	m=1.55 s.d.=.6
Coimbra			.08	.07	.09*	.08*	.07*	.07
Madrid	.08	.07			.09*	.09*	.08*	.08
Modena	.09*	.08*	.09*	.09*			.09	.08*
Lyon	.07*	.07*	.08*	.08*	.09	.08*		

* Significant at 95%

The analysis of Table 12 is confirmed with the data from Table 13. In fact, (1) between the fathers' age in Portuguese and Spanish samples there is no statistically significant difference (they are younger). The same happens between Italian and French sub-samples (they are older); (2) in relation to the mothers' age only the French sub-sample differs significantly from the other three (mothers are significantly older).

8) **Residence's Area** (V13)

Table 14

Subjects' Area of Residence per City %

City / Res. Zone	Coimbra *		Madrid *		Modena **		Lyon *		Totals	
	n	%	n	%	n	%	n	%	n	%
Rural	55	9.42	6	1.37	77	23.19	117	19.83	255	13.12
Urban	334	57.19	277	63.24	219	65.96	199	33.73	1029	52.93
Sub-Urban	193	33.05	149	34.02	32	9.64	268	45.42	642	33.02

* 6 missing

** 4 missing

In the global sample, as can be seen in Table 14, the majority of the adolescents live in urban (52.93%) and suburban areas (33.02%). Only in the French sub-sample is the percentage of inhabitants in an urban area inferior to those living in a suburban area (33.73% and 45.42%, respectively). On the other hand, Italian and French sub-samples are those which present greater representation of adolescents living in a rural area (23.19% and 19.83%, respectively). However, as can be seen on Table 13, only the Italian sub-sample differs significantly from the others, with a trend towards a higher average representation of inhabitants in rural areas.

Table 15

Subjects' Area of Residence: Mean values and Variance Analysis

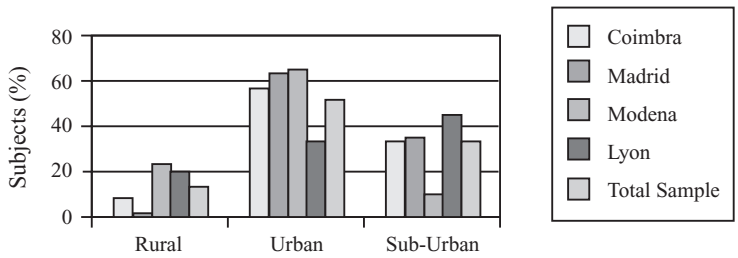
Global Sample	Coimbra	Madrid	Modena	Lyon
m=2.20 s.d.=.65	m=2.23 s.d.=.6	m=2.33 s.d.=.5	m=1.86 s.d.=.56	m=2.25 s.d.=.77
Coimbra		.129345	.000008*	.938888
Madrid	.129345		.000008*	.333964
Modena	.000008*	.000008*		.000008*
Lyon	.938888	.333964	.000008*	

* Significant at $p < .05$

Graphic 7 shows a greater contribution from the French sample towards the number of adolescents in the global sample, living in rural or suburban areas (45.88% and 41.74%, respectively). The small contribution from the Italian sub-sample to the total percentage of residents in suburban areas (4.98%), and from the Spanish one to the residence in rural areas (2.35%), should also be stressed.

Graphic 7

Zone of Residence per Country vs Total Sample



4.1. DATA SYNTHESIS

Demographic Characterisation of Global and National Samples

General Demographic Characteristics of the Global Sample * (n = 1948)	
variable	%
SUBJECTS SCHOOL YEAR	
6th.	5,30
7th.	19, 14
8th.	33,44
9th.	19,24
10th.	22,38
P. E.	0,31
GENDER	
M	49,85
F	48,36
LIVING WITH	
Father and Mother	34,45
Mother only	8,11
Father only	0,92
Mother and Stepfather	1,85
Father and Stepmother	0,56
Father, Mother and Siblings	43,63
Others	5,18
SCHOOLING LEVEL	
FATHER	
Basic level (primary)	22,84
Some High School	7,87
Completed High School	11,01
Some College	4,06
Completed College	6,17
Graduate or Professional School after College	16,72
MOTHER	
Basic level (primary)	23,67
Some High School	8,98
Completed High School	13,81
Some College	3,23
Completed College	6,62
Graduate or Professional School after College	15,91
RESIDENCE'S AREA	
Rural	13,12
Urban	52,93
Suburban	33,02
PARENTS' AGE	
FATHER	mode = [41-50] years old
MOTHER	mode = [31-40] years old
NUMBER OF SIBLINGS	
Older m. = 2,05	min.- max. - 0 - ≥6
Younger m. = 1,81	min.- max. - 0 - ≥6
SUBJECTS' AGE	
m. = 13,89	min.- max.- 12-17 years old

* The percentages on the table refer just to the valid answers.

COIMBRA

General Demographic Characteristics of Coimbra Sub-sample *
(n = 588)

variable	%
SUBJECTS SCHOOL YEAR	
6th.	14,38
7th.	14,73
8th.	39,04
9th.	0,00
10th.	31,85
P. E.	0,00
GENDER	
M	49,32
F	50,68
LIVING WITH	
Father and Mother	32,65
Mother only	5,44
Father only	1,19
Mother and Stepfather	0,85
Father and Stepmother	0,00
Father,Mother and Siblings	50,68
Others	6,80
SCHOOLING LEVEL	
FATHER	
Basic level (primary)	40,72
Some High School	8,35
Completed High School	8,35
Some College	1,87
Completed College	1,87
Graduate or Professional School after College	26,75
MOTHER	
Basic level (primary)	43,88
Some High School	7,14
Completed High School	7,99
Some College	1,36
Completed College	3,74
Graduate or Professional School after College	26,53
RESIDENCE'S AREA	
Rural	9,42
Urban	57,19
Suburban	33,05
PARENTS' AGE	
FATHER	mode = [41-50] years old
MOTHER	mode = [31-40] years old
NUMBER OF SIBLINGS	
Older m. = 1,8	min.- max. - 0 - ≥6
Younger m. = 1,57	min.- max. - 0 - ≥6
SUBJECTS' AGE	
m. = 14,01	min.- max.- 12-17 years old

* The percentages on the table refer just to the valid answers.

MADRID

General Demographic Characteristics of Madrid Sub-sample* (n = 438)

variable	%
SUBJECTS SCHOOL YEAR	
6th.	4,34
7th.	28,77
8th.	41,55
9th.	23,29
10th.	0,23
P. E.	0,91
GENDER	
M	52,74
F	45,43
LIVING WITH	
Father and Mother	40,64
Mother only	8,90
Father only	0,91
Mother and Stepfather	2,28
Father and Stepmother	0,68
Father,Mother and Siblings	41,10
Others	5,02
SCHOOLING LEVEL	
FATHER	
Basic level (primary)	22,60
Some High School	10,73
Completed High School	12,56
Some College	4,57
Completed College	5,71
Graduate or Professional School after College	5,48
MOTHER	
Basic level (primary)	22,37
Some High School	13,93
Completed High School	18,72
Some College	2,74
Completed College	4,79
Graduate or Professional School after College	3,65
RESIDENCE'S AREA	
Rural	1,37
Urban	63,24
Suburban	34,02
PARENTS' AGE	
FATHER	mode = [41-50] years old
MOTHER	mode = [31-40] years old
NUMBER OF SIBLINGS	
Older m. = 2,17	min.- max. - 0 - ≥6
Younger m. = 1,73	min.- max. - 0 - ≥6
SUBJECTS' AGE	
m. = 13,67	min.- max.- 12-16 years old

*The percentages on the table refer just to the valid answers.

MODENA

*General Demographic Characteristics of Modena Sub-sample**
(n = 332)

variable		%
SUBJECTS SCHOOL YEAR		
	6th.	0,00
	7th.	18,67
	8th.	21,69
	9th.	24,40
	10th.	34,94
	P. E.	0,30
GENDER		
	M	52,71
	F	45,43
LIVING WITH		
Father and Mother		26,51
Mother only		5,72
Father only		0,30
Mother and Stepfather		1,51
Father and Stepmother		0,60
Father,Mother and Siblings		53,92
Others		10,24
SCHOOLING LEVEL		
FATHER		
Basic level (primary)		24,40
Some High School		8,73
Completed High School		25,00
Some College		6,63
Completed College		17,47
Graduate or Professional School after College		2,41
MOTHER		
Basic level (primary)		22,89
Some High School		9,94
Completed High School		30,12
Some College		5,42
Completed College		15,66
Graduate or Professional School after College		3,01
RESIDENCE'S AREA		
Rural		23,19
Urban		65,96
Suburban		9,64
PARENTS' AGE		
FATHER		mode = [41-50] years old
MOTHER		mode = [41-50] years old
NUMBER OF SIBLINGS		
Older	m. = 1,29	min.- max. – 0 -5
Younger	m. = 1,34	min.- max. - 0-5
SUBJECTS'AGE		
m. = 14,30		min.- max.- 12-1 years old

*The percentages on the table refer just to the valid answers.

LYON

General Demographic Characteristics of Lyon Sub-sample *
(n = 590)

variable		%
SUBJECTS SCHOOL YEAR		
	6th.	0,00
	7th.	16,61
	8th.	28,47
	9th.	32,37
	10th.	22,37
	P. E.	0,17
GENDER		
	M	46,61
	F	52,88
LIVING WITH		
Father and Mother		36,10
Mother only		11,53
Father only		1,02
Mother and Stepfather		2,71
Father and Stepmother		1,02
Father,Mother and Siblings		32,71
Others		0,85
SCHOOLING LEVEL		
FATHER		
Basic level (primary)		4,26
Some High School		4,77
Completed High School		4,60
Some College		4,43
Completed College		4,43
Graduate or Professional School after College		23,17
MOTHER		
Basic level (primary)		4,92
Some High School		6,61
Completed High School		6,78
Some College		4,24
Completed College		5,76
Graduate or Professional School after College		21,69
RESIDENCE'S AREA		
Rural		19,83
Urban		33,73
Suburban		45,42
PARENTS'AGE		
FATHER		mode = [41-50] years old
MOTHER		mode = [31-40] years old
NUMBER OF SIBLINGS		
Older	m. = 2,38	min.- max. - 0 - ≥6
Younger	m. = 2,20	min.- max. - 0 - ≥6
SUBJECTS'AGE		
m. = 13,71		min.- max.- 12-16 years old

* The percentages on the table refer just to the valid answers.

5. FREQUENCY OF DRUG USE IN THE GLOBAL SAMPLE AND BY COUNTRIES

1) *Tobacco Use*

Beginning with the analysis of data related to legal and illegal drug use, it is important to stress the high percentage of adolescents who claim to have never smoked cigarettes (73.51%). This percentage, in the Coimbra sub-sample, reaches almost 80%, which is the greatest contribution to the global sample (33.28%).

Curiously, and still within the global sample, the number of subjects who state that they have smoked regularly in the past, is double to those who claim to smoke presently (4.48% vs 2.29%). Coimbra and Lyon are the cities that contribute most to this latter group of subjects.

Table 16

Tobacco use through life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sample	Never		1 or 2 times		Once in a while		Regularly (Past)		Regularly (Present)		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	79.55	33.28	7.45	20.67	6.07	21.6	4.33	29.76	2.6	34.88	100	30.76
Madrid +	68.24	21.03	15.53	31.73	10.59	27.78	4.24	21.43	1.41	13.95	100	22.65
Modena **	75.47	17.62	11.8	18.27	7.45	14.81	2.8	10.71	2.48	18.6	100	17.16
Lyon #	70.11	28.06	11.05	29.33	10.51	35.8	5.8	38.1	2.54	32.56	100	29.42
Global Sample	73.51		11.09		8.64		4.48		2.29			

* 11 missing

+13 missing

**10 missing

38 missing

2) *Tobacco Use (last 30 days)*

In spite of the data shown above, when we questioned the subjects about cigarettes use during the last month, the information obtained contradicts that contained in Table 16. That is, specifically, at the moment only 46.5% claim never to have smoked; this decrease is present in each country *per se*, as if the first question related to substances

Table 17

Tobacco use (last 30 days): in each sub-sample (a); per country (b) (%)

Number of cigarettes per day / Sub-sample	None		< 1 / day		1-5 / day		1/2 pack / day		1 pack / day		1.5 pack / day		≥ 2 packs / day		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	38	24.72	24.35	37.4	14.16	40	7.77	34.88	6.39	30.08	5.18	36.59	4.15	22.22	100	30.25
Madrid +	46.65	22.7	15.24	17.51	8.55	18.05	7.62	25.58	8.08	28.46	5.08	26.83	8.78	35.19	100	22.62
Modena **	37.88	14.04	26.06	22.81	12.12	19.51	8.79	22.48	5.15	13.82	4.55	18.29	5.45	16.67	100	17.24
Lyon #	59.97	38.54	14.69	22.28	8.04	22.44	3.85	17.05	5.94	27.64	2.62	18.29	4.9	25.93	100	29.89
Global Sample	46.5		19.7		10.71		6.74		6.48		4.28		5.64			

* 11 missing + 5 missing ** 2 missing # 18 missing

use had encouraged more defensive answers from adolescents. It is also important to stress that more than 23% of the subjects claim to have smoked daily more than half a package of cigarettes over the last 30 days. Also of importance is the contribution of Portuguese subjects (36.59%) to the group consuming, approximately, a packet and a half per day, and the contribution of Madrid (35.19%) towards the group of greatest tobacco consumers (two or more packets a day).

3) *Alcohol Use (during lifetime)*

Table 18

Alcohol use trough life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	58.25	29.15	24.57	33.89	9.62	34.15	3.26	26.39	2.41	26.42	1.89	47.83	0	0	100	30.36
Madrid +	60.28	22.44	19.4	19.91	7.39	19.51	3.93	23.61	4.16	33.96	1.62	30.43	3.23	70	100	22.59
Modena **	56.1	15.82	27.44	21.33	8.84	17.68	4.27	19.44	2.74	16.98	.3	4.35	.3	5	100	17.11
Lyon #	66.03	32.59	18.29	24.88	8.19	28.66	3.83	30.56	2.09	22.64	.7	17.39	.87	25	100	29.94
Global Sample	60.67		22.01		8.56		3.76		2.76		1.2		1.04			

* 6 missing + 5 missing ** 4 missing #16 missing

In relation to the use of beer, wine or spirits, more than 60% of the assessed adolescents claim never to have tried them. However, the percentage of those who have drunk an alcoholic beverage on one or two occasions, is 20%. The adolescents who consume alcohol more frequently (on 40 or more occasions) are the Spanish (with a

70% contribution), followed by the French (25% contribution). Curiously, no Portuguese adolescent admits having consumed alcohol with such high frequency.

4) *Alcohol Use (last 30 days)*

Table 19

Alcohol use (Last 30 days): in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	78.49	29.42	9.64	32.94	5.16	32.61	4.13	48.98	1.55	37.5	1.03	20.69	0	0	100	30.34
Madrid +	77.91	21.61	7.67	19.41	5.12	23.91	3.26	28.57	2.09	37.5	3.95	58.62	0	0	100	22.45
Modena	90.96	19.48	4.82	9.41	3.01	10.87	.6	4.08	.3	4.17	.3	3.45	0	0	100	17.34
Lyon #	79.9	29.48	11.36	38.24	5.24	32.61	1.57	18.37	.87	20.83	.87	17.24	.17	100	100	29.87
Global Sample	80.94		8.88		4.8		2.56		1.25		1.51		.05			

* 7 missing + 8 missing # 18 missing

When assessing the alcohol use in the last month, we conclude that the frequency of non-consumption increases (80.94%), revealing experiences prior to the last 30 days. Likely, and still in the global sample, for all ranges of use occasions presented to the subjects, the frequency of that kind of substances' use progressively decreases. However, the high rate for Spanish youngsters is still present as far as alcohol use is concerned. This contributes with almost 60% to the group of those who had an alcoholic drink, between 20 and 39 times, during last 30 days.

5) *Alcohol Use (five or more alcoholic drinks, last 15 days)*

Table 20

Alcohol use (five drinks, last 15 days): in each sub-sample (a);per country (b) (%)

Frequency of use / Sub-sample	None		1 time		2 times		3-5 times		6-9 times		≥ 10 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	95.28	31.74	1.75	12.66	1.05	18.18	.52	17.65	1.05	46.15	.35	20	100	30.6
Madrid +	89.51	21.37	5.37	27.85	1.95	24.24	2.44	58.82	.24	7.69	.49	20	100	21.94
Modena **	92.16	17.12	2.19	8.86	2.82	27.27	.63	11.76	.94	23.08	1.25	40	100	17.07
Lyon #	89.96	29.76	7.04	50.63	1.76	30.3	.35	11.76	.53	23.08	.35	20	100	30.39
Global Sample	91.87		4.23		1.77		.91		.7		.54			

* 16 missing + 28 missing ** 13 missing # 22 missing

As can be seen from Table 20, only a few more than 8% of adolescents admit to having had five or more alcoholic drinks in the last 15 days before the enquiry. Of these, more than a half of the subjects had an alcoholic drink only once (4.23%). It is interesting to note that more than half of the subjects, who have this kind of consumption behaviour (i.e., had five or more alcoholic drinks in the last 15 days), are French. In the greater frequency use group (ten or more times) the young Italians are the most represented (40%).

6) *Marijuana Use (during lifetime)*

Table 21

Marijuana use through life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	95.93	29.84	1.94	19.23	.58	21.43	.58	17.65	.78	36.36	0	0	.19	5.88	100	29.07
Madrid +	88.91	23.21	3.93	32.69	1.62	50	1.39	35.29	.69	27.27	1.15	100	2.31	58.82	100	24.39
Modena **	94.17	18.51	3.07	19.23	.31	7.14	1.23	23.53	.31	9.09	0	0	.92	17.65	100	18.37
Lyon #	94.4	28.45	3	28.85	.6	21.43	.8	23.53	.6	27.27	0	0	.6	17.65	100	28.17
Global Sample	93.46		2.93		.79		.96		.62		.28		.96			

* 72 missing + 5 missing ** 6 missing # 90 missing

It may not be surprising that from all the drugs analysed so far, it is marijuana which is less consumed by the adolescents who took part in our study; more than 93% claim

7) *Marijuana Use (last 30 days)*

Table 22

Marijuana use (last 30 days): in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	91.62	29.63	3.12	51.61	2.73	77.78	.19	50	.39	40	.58	50	1.36	46.67	100	30.85
Madrid +	96.91	25.73	1.19	16.13	0	0	0	0	.24	20	.48	33.33	1.19	33.33	100	25.32
Modena **	98.17	20.3	.61	6.45	.3	5.56	0	0	0	0	0	0	.91	20	100	19.72
Lyon #	96.26	24.34	2	25.81	.75	16.67	.25	50	.5	40	.25	16.67	0	0	100	24.11
Global Sample	95.37		1.86		1.08		.12		.3		.36		.9			

* 75 missing + 17 missing ** 4 missing # 189 missing

never to have consumed marijuana. From those who have already tried this type of drug, more than 2% of Spanish surveyed adolescents have consumed it 40 or more times. They contribute with almost 60% to this group of high consumption (40 or more times) and, it should be stressed, with 100% to the group who used marijuana between 20 and 39 times.

Focusing on the use of the same substance during the last 30 days before the assessment, we note that the percentage of non-consumers increases slightly (95.37%). The Portuguese sub-sample shows similar movement to the tobacco use in the global sample. (previously analysed). In fact and paradoxically, the percentage of Portuguese adolescents who claim not to have consumed marijuana during the last month prior to assessment is smaller than that of those who claim never to have consumed that drug (in all their lives). The data of the Portuguese sample is curious and somewhat worrying, because the adolescents living in Coimbra are those who are more significantly present in the consumption groups "1-5 occasions" and "more than 20 occasions".

8) *Other Drugs Use*

When evaluating the adolescent use of ecstasy, LSD or other psychedelic drugs, the percentage of those who have never tried them increases to almost 97%. However, there is a higher presence of young Spanish in the group of bigger consumers (66-67%) and an even higher contribution of Portuguese in the group of those who have already consumed this type of drug once or twice (72-73%).

Table 23

Psychedelic Drug use through life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra *	93.72	31.37	3.35	72.73	.84	57.14	.63	60	.63	75	.63	75	.21	16.67	100	32.38
Madrid +	97.75	24.3	.28	4.55	.28	14.29	.28	20	0	0	.28	25	1.13	66.67	100	24.05
Modena **	98.76	22.34	.62	9.09	0	0	.31	20	0	0	0	0	.31	16.67	100	21.88
Lyon #	98.12	21.99	.94	13.64	.62	28.57	0	0	.31	25	0	0	0	0	100	21.68
Global Sample	96.75		1.49		.47		.34		.27		.27		.41			

* 110 missing

\+ 83 missing

** 9 missing

\# 270 missing

Table 24

Psychadelic Drug use (last 30 days) in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra	99.66	30.3	.34	40	0	0	0	0	0	0	0	0	0	0	100	30.18
Madrid	98.40	22.3	0	0	.68	100	0	0	.91	100	0	0	0	0	100	22.48
Modena	99.40	17.1	.30	20	0	0	0	0	0	0	0	0	.30	100	100	17.04
Lyon	99.66	30.4	.34	40	0	0	0	0	0	0	0	0	0	0	100	30.29
Global Sample	99.33		.25		.15		0		.20		0		.05			

As can be seen on Table 24, the number of subjects, using the psychadelic drugs limited to the assessment's previous 30 days, decreases in the total sample and in all sub-samples individually considered. This decrease is highly marked in the group of Portuguese adolescents.

Table 25

Cocain use through life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra	100	30.35	0	0	0	0	0	0	0	0	0	0	0	0	100	30.18
Madrid	97.72	22.09	.91	100	0	0	0	0	.23	100	0	0	1.14	83.33	100	22.48
Modena	99.70	17.08	0	0	0	0	0	0	0	0	0	0	.30	16.66	100	17.04
Lyon	100	30.45	0	0	0	0	0	0	0	0	0	0	0	0	100	30.29
Global Sample	99.43		.20		0		0		.05		0		.31			

Table 26

Cocain use (last 30 days) in each sub-sample (a); per country (b) (%)

Frequency of use / Sub-sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra	100	30.27	0	0	0	0	0	0	0	0	0	0	0	0	100	30.18
Madrid	99.09	22.34	0	0	.22	100	0	0	.68	100	0	0	0	0	100	22.48
Modena	99.40	16.99	0	0	0	0	0	0	0	0	0	0	.6	100	100	17.04
Lyon	100	30.38	0	0	0	0	0	0	0	0	0	0	0	0	100	30.29
Global Sample	99.69		0		.05		0		.15		0		.10			

It is almost exclusively young Spanish who admit to having already consumed cocaine, half of whom on 40 or more occasions. In the total sample, only one (1) Italian subject admits having had that experience. However, two (2) Italian subjects admit having tried that type of substances' use in the previous month's assessment (Table 26).

To conclude the presentation of the data on substances' use by adolescents in our sample, we shall look at the following table (Table 27), which presents very low values with no statistical relevance whatsoever.

Table 27

Glue / Aerosol use through life: in each sub-sample (a); per country (b) (%)

Frequency of use / Sample	0 times		1 - 2 times		3 - 5 times		6 - 9 times		10 -19 times		20 - 39 times		≥ 40 times		Total	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Coimbra	100	30.26	0	0	0	0	0	0	0	0	0	0	0	0	100	30.18
Madrid	99.31	22.38	0	0	.22	100	0	0	0	0	0	0	.45	100	100	22.48
Modena	99.39	16.98	.60	100	0	0	0	0	0	0	0	0	0	0	100	17.04
Lyon	100	30.36	0	0	0	0	0	0	0	0	0	0	0	0	100	30.29
Global Sample	99.74		.10		.05		0		0		0		.10			

To conclude the analysis of drug's use (licit and illicit) we can note the enormous increase of invalid or non-answers according to the increasing gravity of the drug. We can still stress the existence of different patterns of drug use looking at each one of the four survey's sub-samples. Excluding tobaccos use, the Madrid sub-sample shows the highest of all drugs use rates. Coimbra and Lyon sub-samples results point to an important risk in tobacco's use. We should particularly bear in mind that Portuguese adolescents attract our attention as "important beginners" in new synthesis drugs.

Bearing in mind that our main objective with this work is prevention in adolescents, it is fundamental to underline the important associations found amongst the different kinds of substance use. Let us look at table 28.

The correlation between adolescent use of tobacco and alcohol as well as the correlation between marijuana use in a lifetime and the frequent use of alcoholic drinks, are extremely visible. In a more detailed analysis of the results, we conclude that:

1) it is no surprise, that the alcohol use in the last 30 days is strongly associated with the frequency of drinks in a lifetime (45% of the variance);
2) it is curious, that the alcohol use in the last 30 days is also closely associated with tobacco use during lifetime (18% of the variance) as well as with tobacco use during the last month before the assessment (26% of the variance). Maybe that is the reason why it is not surprising that the use of tobacco in the last 30 days is correlated to the use of alcohol during lifetime (49% of the variance).

Table 28

Correlation (C) and Variance (V) between types of drug use

	Tobacco (life)		Tobacco (30 days)		Alcohol (life)		Alcohol (30 days)		5 Alc. drinks (15 days)		Marijuana (life)		Marijuana (30 days)	
	(C)	(V) %	(C)	(V) %	(C)	(V) %	(C)	(V) %	(C)	(V) %	(C)	(V) %	(C)	(V) %
Tobacco (life)	1.0	-	.39	15	.39	15	.43	18	.47	23	.32	10	.22	4
Tobacco (30 days)	.39	15	1.0	-	.70	49	.51	26	.32	10	.19	4	.15	2
Alcohol (life)	.39	15	.70	49	1.0	-	.67	45	.33	11	.20	4	.13	2
Alcohol (30 days)	.43	18	.51	26	.67	45	1.0	-	.38	14	.21	4	.16	3
5 Alc. Drinks (15 days)	.47	23	.32	10	.33	11	.38	14	1.0	-	.62	38	.19	3
Marijuana (life)	.32	10	.19	3	.20	4	.21	4	.62	38	1.0	-	.15	2
Marijuana (30 days)	.22	4	.15	2	.13	2	.16	3	.19	4	.15	2	1.0	-

3) the more intense use of alcohol (more than 5 alcoholic drinks in the last 15 days) is correlated to the use of tobacco during lifetime (23% of the variance), but the correlation is even stronger with marijuana use during lifetime (38% of the variance). This last association, in particular, calls our attention.

Finally we should stress, that considering the low percentages of illegal drugs' use (excluding marijuana), we decided not to proceed further with the statistic study of minor uses' drugs indexes (less than 1%). So, from now on we only consider the variable "Psychadelic drug-use through life", which was renamed as "other drugs", with particular reference to the new synthesis drugs, which were included in it.

6. FAMILY CHARACTERISTICS

6.1. Family Functioning: Family Adaptability and Cohesion Scale III (FACES III)

FACES III is, as one can deduce, the third version of the Family Adaptability and Cohesion Evaluation Scales, instruments developed by Olson and col. (1985). This is a family functioning assessment scale, conceptually based on the Circumplex Model (CM) conceived by the same authors (Olson and col., 1979, 1980, 1982, 1983). According to the Family Psychology Theory and the Family Therapy, the CM takes into account (and joins together) three important dimensions of family functioning: cohesion, adaptability and communication.

Family cohesion evaluates the degree to which family members are separated from or connected to their family and it is defined as the emotional bonding that family members have between themselves. (Olson and col., 1992: 1). To measure and diagnose cohesion the specific concepts used are the following: emotional bonding, boundaries, coalitions, time, space, friends, decision making, interests and hobbies.

Family adaptability (change) has to do with the system's flexibility and its capacity to change. It is defined as the "ability of a family system to change its power structure, role relationships, and relationships rules in response to situational and developmental stress" (Olson and col., 1992: 1). To measure and diagnose adaptability, the specific concepts used are the following: family power (assertiveness, control and discipline), negotiation style, role relationships, and relationship rules.

Family communication (assessed by a separate scale), the third dimension, facilitates the movement between the two previous dimensions.

Within CM, both in cohesion and adaptability, there are four different levels ranging from extreme low to extreme high values. Those levels are: disengaged, separated, connected and very connected (cohesion dimension); rigid, structured, flexible and very flexible (adaptability dimension). For both dimensions the intermediate levels are seen as the most viable for a healthy family functioning. On the other hand, the extreme levels are considered as problematic ones. By crossing these four levels, in pairs and in both dimensions, the CM allows us to find sixteen specific family types, that we can reduce to four more general ones accordingly with the linear scoring of FACES - balanced, moderately balanced, mid-range and extreme.

However, FACES III allowed us also to develop an alternative hypothesis, according to which the extreme types can be adequate if all family members feel satisfied with the way the family functions (aspect that can be evaluated by another scale that assesses the level of Family Satisfaction). This is particularly important among certain cultural groups like the Jewish, Amish or Mormons. Surveys made in South Europe confirm this differentiation (Serra, V. and col., 1992; Dantas, A,1994).

FACES III Scales: Items and Concepts

FAMILY COHESION

Emotional Bonding

11. Family members feel very close to each other.
19. Family togetherness is very important.

Supportiveness

1. Family members sake each other for help.
17. Family members consult other family members on their decisions.

Family Boundaries

7. Family members feel closer to other family members than to people outside the family.
5. We like to do things with just our immediate family

Time and Friends

9. Family members like to spend free time with each other
3. We approve of each other's friends.

Interests and Recreation

13. When our family gets together for activities, everybody is present.
15. We can easily think of things to do together as a family.

FAMILY ADAPTABILITY

Leadership

6. Different persons act as leaders in our family.
18. It is hard to identify the leader(s) in our family.

Control

12. The children make the decisions in our family.
2. In solving problems, the children's suggestions are followed.

Discipline

4. Children have a say in their discipline.
10. Parent(s) and children discuss punishment together.

Roles and Rules

8. Our family changes its way of handling tasks.
16. We shift household responsibilities from person to person
20. It is hard to tell who does which household chores.
14. Rules change in our family.

Cohesion items are the odd numbers. Adaptability (change) items are the even numbers.

FACES III consists of a likert (1 to 5) self-administrated questionnaire composed of twenty items (ten for cohesion and ten for adaptability). FACES III can be individually administrated to any family member who can read and is more than twelve years old. Ideally, everyone capable of filling the questionnaire in, should do it. FACES III can also be applied to larger groups (like students) in a collective administration.

As focus of assessment FACESIII has got three different forms: perceived, ideal and family satisfaction. The scoring norms were prepared to establish different cutting points according to a particular stage of family life cycle and to the composition of the family or age level of its members. The reliability and validity studies show very good results.

The scoring method is very simple: the final cohesion score is the addition of all odd items and the final adaptability score is attained by the addition of all even items. The cohesion and adaptability score average allows us to find an adjustable family type to C.M. and to the linear interpretation model that we present next:

FACES LINEAR SCORING

Cohesion			**Adaptability**			**Family Type**	
8	80		8	70		8	
	74	Very	65		Very		Balanced
7	73	Connected	7	64	Flexible	7	
	71			55			
6	70		6	54		6	
	65	Connected		50	Flexible		Moderately
5	64		5	49		5	Balanced
	60			46			
4	59		4	45		4	
	55	Separated		43	Structured		Mid-
3	54		3	42		3	Range
	51			40			
2	50		2	39		2	
	35	Disengaged		30	Rigid		Extreme
1	34		1	29		1	
	15			15			

__ Cohesion + — Adaptability / 2 = — Family Type

(Example: (55) 4 cohesion + (46) 5 adaptability / 2 = (4,5) 5 family type: moderately balanced)

FACES III also allows us to obtain other kinds of measurement, such as Family Discrepancy or the Distance From the Centre of C.M.

FACES III presents good reliability results when administrated to our sample. In fact the Cronbach α values and the item-total correlation (excluding the item) are, respectively, superior to .70 and .30 (in both sub-scales – Cohesion a = .76; adaptability a = .73- and in the total scale α = .82). The Cronbach a values of the items (excluding the item) confirm this index, ranging between .69 and .83.

6.1.1 Faces results for the overall sample and differences between countries

Table 29

Frequency distribution per Cohesion and Adaptability Levels and Family Type (%)

Cohesion	%	Adaptability	%
1-Disengaged	52.62	1-Rigid	6.52
2-Separated	29.88	2-Structured	13.4
3-Connected	15.45	3-Flexible	25.67
4-Very Connected	2.05	4-Very Flexible	54.41
Family Type	**%**		
1-Extreme	6.93		
2-Mid-Range	33.21		
3-Moderately Balanced	50.62		
4-Balanced	9.24		

According to Table 29, we see that, in the global sample, more than a half of the subjects perceive their family in the lowest level of cohesion ("disengaged" - 52,62%). The opposite happens with the adaptability dimension: more than half of the subjects perceive their families as "very flexible" (54,41%). This is surprising since one would expect to find a concentration of values at the medium levels in both dimensions. This fact should not be related with the scales reliability (as we have already seen). Other aspects should explain this fact, then; one of them may be the subjects' age.

About family type, and probably due to the scoring formula of this index, (and as already expected…) more than 80% of the subjects classify their families in the medium categories: "moderately balanced" families (50,62%) and "mid-range" families (33,21%).

Table 30

Mean values and Variance Analysis (Fisher-test)

	Coimbra			Madrid			Modena			Lyon		
	Coh. M=1.97 s.d.=.84	Adapt. m=3.64 s.d.=.65	F. type m=2.95 s.d.=.66	Coh. m=1.73 s.d.=.82	Adapt. m=3.48 s.d.=.77	F. type m=2.75 s.d.=.69	Coh. m=1.81 s.d.=.81	Adapt m=2.67 s.d.=1.02	F. type m=2.41 s.d.=.76	Coh. m=1.24 s.d.=.55	Adapt m=3.11 s.d.=1	F. type m=2.32 s.d.=.71
Coimbra				.09*	.11*	.09*	.1*	.12*	.09*	.09*	.1*	.08*
Madrid	.09*	.11*	.09*				.11	.12*	.1*	.09*	.11*	.09*
Modena	.1*	.12*	.09*	.11	.12*	.1*				.1*	.12*	.09
Lyon	.09*	.1*	.08*	.09*	.11*	.09*	.1*	.12*	.09			

* significant at 95%

Looking at Table 30, it is possible to verify that the highest *cohesion* mean value is found in the Portuguese sub-sample (1,97) (statistically significantly different from the other sub-samples). The lowest is found in the French sub-sample (1,24) (also significantly different from the other samples). Madrid and Modena sub-samples show intermediate mean values with no significant differences between them.

In regard to *adaptability*, the general tendency in the mean values distribution allows us to conclude that the adaptability is higher in the Portuguese sub-sample (3,64), followed by the Spanish one (3,48), the French one (3,11) and finally the Italian (2,67). In this area, significant differences are found among all sub-samples. In respect to the *family type*, the tendency shown is similar to the one registered in the cohesion dimension (from the highest to the lowest: Portuguese, Spanish, French and Italian samples) but, in this case, there are no significant statistical differences between the French and Italian sub-samples.

6.2. Family Coping: Family Crisis Oriented Personal Evaluation Scale (F – COPES)

F-COPES was created to identify behaviour and problem solving strategies used by families in problematic or difficult situations. In the construction of F-COPES the theories of stress and family coping are linked together. It is assumed that the family coping strategies are not created in a single and specific instant; so, they are seen as the result of a process that gradually modifies them over time. They reveal, therefore, some continuity or stability.

In this context, F-COPES tried to integrate family resources, stress theories and meaning perception factors in coping strategies. F – COPES was also constructed to provide information on two family coping components – internal and external patterns.

This is a *likert* scale (1 to 5)with twenty-nine items (thirty in the original version; attending to psychometric values, item eighteen was eliminated from the final version). The addition of these items gives us the final score and the results for the five factors that represent five of the underlying dimensions.

Factors 2 and 5 represent (e.g. define the patterns and strategies) the inner resources of the nuclear family system (parents and children), associated with the so-called *reframing* and *passive appraisal* dimensions. The first one (FC2) evaluates the family's capability to redefine the stressful events in order to make them "workable". To a certain extent, this dimension also shows the confidence that the family has in its own ability to solve problems. The second dimension (FC5) evaluates the family's ability to accept problematic issues, minimising the reactions that it may cause; it represents a less active way of fighting stressful events. This dimension indicates poor initiative and a certain amount of passiveness towards problems.

The three remaining Factors (1, 3 and 4) are grouped in the external family coping pattern (i.e. they promote active behaviours that the family uses to elicit resources outside the nuclear family system):

Factor 1 (FC1): *Acquiring Social Support*; assesses the nuclear family's ability to use help engaged from relatives, friends, neighbours and extended family as resources;

Factor 3 (FC3): *Seeking Spiritual Support*; measures the family's ability to use this kind of support as a resource;

Factor 4 (FC4): *Mobilising Family to Acquire and Accept Help* reveals the ability to seek and accept the community's resources (help) outside the nuclear or the extended family and other relatives.

The higher the score achieved in one of any of these factors, the greater the family's use of that strategy.

The validity and reliability studies show good results. Do notice that, although acceptable, the factors presenting the poorest results in the test-retest were the ones associated with internal coping patterns (reframing and passive appraisal).

F-COPES, also seems to present good reliability results in our sample. This can be confirmed by the values obtained in the correlation item-total (excluding the item) in each sub-scale: the two lowest values (0,29,0,30) are superior to 0,20, which is the minimum acceptable value indicated by some authors (Nunnally, 1978). This allows us to be conclusive on the homogeneity of the items considering each sub-scale and the total scale. The internal consistency of the sub-scales is also good, because the Cronbach α in almost every sub-scale is over .70 (cf. Table 31). However, Passive Appraisal sub-scale (FC5), shows a relatively low α value (.55). Yet, considering this sub-scale theoretical coherence within F-COPES, item-total and inter-item correlation values (average .24) and the fact that its inclusion in the total scale increases the global α value, we choose to keep this sub-scale in the survey.

F-COPES SCALES: ITEMS* AND DIMENSIONS

Acquiring Social Support (FC1)

5. Seeking advice from relatives (grandparents, etc.).
2. Seeking encouragement and support from friends.
1. Sharing our difficulty with relatives.
25. Asking relatives how they feel about problems we face.
4. Seeking information and advice from persons in other families who have faced the same or similar problems.
10. Asking neighbours for favours and assistance.
16. Sharing concerns with close friends.
29. Sharing problems with neighbours.
20. Doing things with relatives (get-togethers, dinners, etc.).

Refraiming (FC2)

7. Knowing we have the strength within our own family to solve our problems
3. Knowing we have the power to solve major problems.
22. Believing we can handle our own problems.
13. Showing that we are strong.
11. Facing problems head-on and trying to get solutions right away.
15. Accepting stressful events as a fact of life.
24. Defining the family problem in a more positive way so that we do not become too discouraged.
19. Accepting that difficulties occur unexpectedly.

Seeking Spiritual Support (FC3)

14. Attending church services.
23. Participating in church activities.
27. Seeking advice from a minister.
30. Having faith in God.

Mobilising Family to Acquire and Accept Help (FC4)

21. Seeking professional counselling and help for family difficulties.
6. Seeking assistance from community agencies and programs designed to help families in our situation.
9. Seeking information and advice from the family doctor.
8. Receiving gifts and favours from neighbours (e.g. food, etc.).

Passive Appraisal (FC5)

17. Knowing luck plays a big part in how well we are able to solve family problems.
12. Watching television.
28. Believing if we wait long enough, the problem will go away.
26. Feeling that no matter what we do prepare, we will have difficulty handling the problem.

*please recall that item 18 was eliminated from the final version of the scale; so, the item numbers mentioned above in this table do not match with the ones in the research protocol (there, all the numbers, after item 17, will correspond to the item number cited in this table less 1 - e.g. 18 correspond to 19 and so on).

Table 31

F-Copes - Reliability Results

	Acquiring social support **(FC1)**	Reframing **(FC2)**	Seeking spiritual support **(FC3)**	Mobilising Family Acquire and Accept help **(FC 4)**	Passive Appraisal **(FC5)**	Family Coping **(Total Scale)**
Cronbach α	.78	.75	.80	.72	.55	.66
Average inter-item correlation	.28	.28	.49	.39	.24	.23

The results obtained with these studies (item-total correlation and the α value of the item, excluding the item in both cases) confirm the good homogeneity and internal consistency of the items. It is true that the total scale shows a value inferior to the one of the first four sub-scales (.66), but considering the correlation values between the sub-scales and the global scale (always superior to .38) as well as the objective of our survey, we decide to consider the global assessment, e.g. Family Coping index, each time it seems important to do so.

6.2.1. F- COPES *results for the overall sample and differences between countries*

Family Coping shows, in the global sample, a mean value of 80,5. In the sub-samples the highest mean was achieved in the Coimbra sub-sample while the lowest one was found in the Lyon sub-sample, as we can see on Table 27. Since there are highly significant differences among all the sub-samples we may conclude that Portuguese adolescents are the ones who perceive their families as having more Family Coping in the whole sample (93,6), followed by the Italians (80,3), the Spanish (74,2) and finally the French (70,3).

Continuing to study Table 32, we verify that the values achieved by each sub-sample, in the five dimensions of the instrument, follow, almost always, the tendency expressed by Family Coping index. That is, the highest values of family coping strategies are found in the Portuguese and Italian sub-samples (except for Seeking Spiritual Support dimension, where the Spanish sample shows a value higher then the Italian one).

Considering the significance of the variance among the four sub-samples, however, we may describe the behaviour of each one of the dimensions as follows (cf. Table 32):

1. *Acquiring Social Support:* following the general tendency, there are statistically significant differences among the four sub-samples.

2. *Reframing:* the general tendency continues but there are no significant differences between French and Spanish sub-samples.

3. *Seeking Spiritual Support:* Spanish and Italian samples do not differentiate themselves in this dimension, showing intermediate values.

4. *Mobilising Family to Acquire and Accept Help:* French and Spanish sub-samples show the lowest values and do not differentiate significantly. The opposite happens with the Italian and Portuguese sub-samples.

5. *Passive Appraisal:* the data shows a more frequent use of this strategy in the sub-samples of Coimbra and Modena (that do not differentiate significantly) and lesser use in sub-samples of Madrid and Lyon (which also do not show any significant difference).

Table 32

Mean Values and Variance Analysis (Fisher-test)

Acquiring social support (FC1) Global Sample m=25.9		**Reframing** (FC2) Global Sample m=22.7		**Seeking spiritual support (FC3)** Global Sample m=11.5	
Coimbra vs. Madrid m=31.1 m=24.1 s.d.=10.2 s.d.=10.3	1.2*	Coimbra vs. Madrid m=26.1 m=20.6 s.d.=9.6 s.d.=8.4	1.1*	Coimbra vs. Madrid m=13.1 m=12.0 s.d.=3.8 s.d.=4.9	.6*
Coimbra vs. Modena m=25.7 s.d.=9.9	1.3*	Coimbra vs. Modena m=22.4 s.d.=8.6	1.2*	Coimbra vs. Modena m=11.5 s.d.=4.4	.6*
Coimbra vs. Lyon m=22.3 s.d.=8.3	1.1*	Coimbra vs. Lyon m=21.0 s.d.=8.4	1.0*	Coimbra vs. Lyon m=9.5 s.d.=5	.5*
Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	1.4* 1.2* 1.3*	Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	1.3* 1.1 1.2*	Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	.7 .6* .6*
Mobilising Family Acq. and accept help (FC4) Global Sample m=9.3		**Passive** Appraisal (FC5) Global Sample m=9.4		**Family Coping** (Total Scale) Global Sample m=80.5	
Coimbra vs. Madrid m=11.4 m=8.3 s.d.=5.0 s.d.=4.5	.6	Coimbra vs. Madrid m=10.4 m=8.5 s.d.=4.9 s.d.=4.8	.6*	Coimbra vs. Madrid m=93.6 m=74.2 s.d.=20.2 s.d.=19.8	2.7*
Coimbra vs. Modena m=9.1 s.d.=4.7	.6*	Coimbra vs. Modena m=9.8 s.d.=4.5	.7	Coimbra vs. Modena m=80.3 s.d.=20.1	3.0*
Coimbra vs. Lyon m=8.0 s.d.=4.0	.5*	Coimbra vs. Lyon m=8.9 s.d.=4.6	.6*	Coimbra vs. Lyon m=70.3 s.d.=17.8	2.5*
Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	.7* .6 .6*	Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	.7* .6 .7*	Madrid vs. Modena Madrid vs. Lyon Modena vs. Lyon	3.2* 2.8* 3.1*

** significant at 95%*

7. FAMILY RISK AND PROTECTIVE FACTORS OF DRUG USE

Arthur, Hawkins and Catalano (1997) created the Student Survey of Risk and Protective Factors and Prevalence of Alcohol, Tobacco and Other drug use (SSRPF-PATO) in the USA within the context of a broader study carried out by the Centre for Substance Abuse Prevention (CSAP).

The questionnaire evaluates the risk factors, the protective factors and behavioural problems, by looking for inter-correlation between them, through the different stages of adolescence. It is an individually self-administrated instrument. It is easily applicable in the school setting, in the classroom context, during a period of approximately 50 minutes.

This instrument's global final version assesses four (4) dimensions or risk and protective factor groups that may be predictors of substance use: community, family, school, peer-individual. Each one of these dimensions has different subscales to evaluate the risk and protection factors. The instrument also includes two inventories, one concerning demographic characteristics and, another, concerning substances use.

The authors state that the reliability results are good in most of the scales, showing an average $\alpha = .78$ (all scales together) (Catalano and col., 1997). However, the reliability values are higher in the scales measuring risk factors than in the ones measuring the protective factors. It is interesting to verify that this general tendency of the instrument does not occur in the dimension concerning family. That is to say, the validity coefficients of the protective factors are not, in general, inferior to the risk ones. Almost every scale has a good or a very good coefficient. The risk and protective factors are, as expected, correlated to behaviour problems. The correlation between those factors and the demographic variables is, however, in general, very low.

Considering the characteristics and aims of our work we translated the *Family Dimension of the Risk and Protection Factors*, from where we apply all the proposed items (35).

The family dimension of SSRPF-PATO is composed of nine subscales: the first six (6) scales correspond to the risk factors (poor family supervision, poor discipline, family conflict, family history of antisocial behavior, parental attitudes favourable toward drug-use) and the remaining three (3) correspond to the protective factors (family attachment, opportunities for family involvement, rewards for family involvement).

The higher the results achieved in a risk factor, the greater its importance: a greater risk of disorder is expected. The same logic is true for the protective factors: the higher the score in a protective factor, the higher its protection effect, minimising or moderating the effect of the exposure to risk factors.

The reliability studies made of the instrument in our sample (Table 33) show that, except for three sub-scales [Attachment (F7), Anti-Social Behaviour History (F4) and Poor Discipline (F2)], the internal consistency (Cronbach α values) it is under 0,70.

Table 33
SSRPF Reliability Results

Factor	F1	F2	F3	F4	F5	F6	F7	F8	F9	Total Scale
α	.64	.72	.56	.74	.64	.64	.72	.63	---	.14
Average Inter-Item Correlation	.23	.46	.30	.33	.38	.38	.31	.36	p< 0.05	.019

On the other hand, both the inter-item correlation values in the 9 sub-scales and the total-item correlation (without the item) for the global scale are very low. The same happens with the Cronbach a value of the total scale (0.14). For this reason, it was decided to make a factorial analysis of the data obtained in our sample with this instrument to draw out new factors (Principal Components extraction with Varimax transformation, orthogonal solution). Six items (26 to 31 included) were excluded from this procedure for formal reasons concerning the data measurement / quantification.

Two factors, showing good eigenvalues and variance values, were extracted (eigenvalues F 1- 5.9; F 2 – 2.5; % variance, F 1 – 42%; F 2 – 17%). Those factors were then submitted to the reliability studies, to evaluate their homogeneity or heterogeneity, i.e., the internal consistency and statistic coherence of the items that constitute each "new" scale equivalent to each factor (cf. Table 34).

Table 34
F 1 and F 2 reliability results

	F1	F2	F1 x F2
Cronbach α	.81	.80	.53
Average Inter-Item Correlation	.24	.22	.04

Facing these results we may say that both scales show a good internal consistency (Factors 1 α = 0,81; Factor 2 α = 0.80). The correlation item-total (excluding the item) are superior to 0,31, except for item 24 in Factor 1 (0,27).

However, considering the high α value achieved by item 24 (excluding the item = 0,80) and the criteria that states that item-total correlation should be higher than 0,20 (Nunnally, 1978), we decide not to eliminate item (24) from the scale. All the items show, in both factors, (with the exclusion of the item) quite high a values (always superior to 0.70 and some even higher than 0.80)

Proceeding with the psychometric study of the instrument and according to the reliability and item analysis for the global scale, we concluded that the items' heterogeneity in both scales all together (average inter-item correlation = .04),like the low global α value (0,53)(cf. table 34), does not allow this instrument to be considered as a sole scale. Subsequently in our survey, instead of considering one bidimensional scale, we will work with two unidimensional scales, equivalent, as already said, to Factors 1 and 2.

Proceeding with the descriptive analysis of the scales: one of them (corresponding to Factor 1) consists of 14 items and the other (corresponding to Factor 2) consists of 15 items.

Factor 1 aggregates the variables 23 to 24 and 38 to 48 (inclusive), evaluating the (in)existence of family conflicts and the ability of positive parent-children relational involvement (it corresponds, in the original SSPPF version, to following protective factors: Attachment, Opportunities for Family Involvement and Rewards for Family Involvement; it includes, too, the family conflict dimension inversely scored). It may, therefore, be entitled *Family Attachment and Absence of Conflict Scale* (FAACS), assumed as a global family protective factor. The final score value corresponds to the points addition of all items answers. The higher the final score value the higher the family attachment (minimum 14, maximum 56).

Factor 2 aggregates the variables 14 to 22 and 32 to 37 (inclusive). All the items that constitute it are, in the original version, included in risk factors and report specifically to poor parental management and discipline and also to parental attitudes favourable to anti-social behaviours (including substance use).This scale may, therefore, be called *Parental Risk Attitudes Scale- towards Discipline and Anti-Social Behaviours* (PRAS-DASB). Theoretically, it is understood that it assesses a global risk factor. The scoring procedure and interpretation is identical to the previous scale - the higher the final score value is, the higher poor parental supervision or discipline is, as well as the attitudes favourable towards anti-social behaviours (minimum15, maximum 60).

FAMILY ATTACHMENT AND ABSENCE OF CONFLICT SCALE (FAACS)

1. People often insult or yell at each other.
2. People have serious arguments.
3. People argue about the same things over and over.
4. Feel very close to mother.
5. Enjoy spending time with mother.
6. Share thoughts and feelings with mother.
7. Feel very close to father.
8. Enjoy spending time with father.
9. Share your thoughts and feelings with father.
10. Parents giving lots of chances to do fun things with them.
11. Parents asking what I think before most family decisions affecting me are made.
12. Having a personal problem, could ask mom or dad for help.
13. Parents notice when I am doing a good job and let me know about it.
14. Parents tell they're proud of you for something you've done.

PARENTAL RISK ATTITUDES SCALE TOWARDS DISCIPLINE AND ANTI-SOCIAL BEHAVIOURS (PRAS-DASB)

1. Parents ask if I've got my homework done.
2. Parents want me to call if I'm going to be late getting home.
3. Parents know if you did not come home on time.
4. One of my parents knows where I am and who I am with.
5. The rules in my family are clear.
6. Having clear rules about alcohol and drug use.
7. Drank some beer or wine or liquor (for example, vodka, whisky, or gin) without parents' permission - would be caught by parents.
8. Skipped school - would be caught by parents.
9. Carried a weapon (gun, knife...) without parents' permission - would be caught by parents.
10. Parents feel wrong - drink beer, wine or hard liquor (for example, vodka, whisky or gin) regularly.
11. Parents feel wrong - smoke cigarettes.
12. Parents feel wrong - smoke marijuana.
13. Parents feel wrong - teal anything worth more than $5.
14. Parents feel wrong - draw graffiti, or write things or draw pictures on buildings or other property (without the owner's permission).
15. Parents feel wrong - pick a fight with someone.

7.1. Family Attachment and Absence of Conflict Scale (faacs) and Parental Risk Attitudes Scale (pras - dasb) Results. Differences Between Countries

Table 35

Mean Values and Variance Analysis (Fisher-test)

Global Sample		Coimbra		Madrid		Modena		Lyon	
FAACS (F1)	PRAS (F2)	FAACS (F1)	PRAS (F2)	FAACS (F1)	PRAS (F2)	FAACS (F1)	PRAS (F2)	FAACS (F1)	PRAS (F2)
m= 40.08 s.d.= 6.17	m=24.34 s.d.=6.41	m=40.26 s.d.=5.83	m=23.98 s.d.=5.91	m=40.11 s.d.=6.01	m=24.98 s.d.=6.73	m=41.42 s.d.=6.68	m=23.19 s.d.=5.74	m=39.15 s.d.=6.18	m=24.88 s.d.=6.88
Coimbra				.76	.79*	.83*	.86	.7*	.73*
Madrid		.76	.79*			.88*	.91*	.76*	.79
Modena		.83*	.86	.88*	.91*			.83*	.86*
Lyon		.7*	.73*	.76*	.79	.83*	.86*		

* Significant at 95%

In the global sample FAACS mean values are high, implying high attachment values (considering the maximum and minimum possible values). Exactly the opposite happens with the mean values of PRAS, i.e., parental discipline is not very low. In the first scale (FAACS) it is only between the Spanish and the Portuguese sub-samples that we do not find significant differences. The significant highest mean values, therefore, were found in Italian sample, followed by the values of Portuguese and Spanish (intermediate mean values). The French sub-sample shows significantly lower mean values. This implies that Italian adolescents are the ones who perceived a higher family attachment and understanding, the opposite happening with the French adolescents.

With respect to parental discipline and anti-social behaviour risk attitudes (PRAS), there are no statistically significant differences between the Italian and the Portuguese sub-samples. The same happens between the Spanish and the French sub-samples. Thus, these latter adolescents, perceive their parents as being less strict and as having more favourable attitudes towards anti-social behaviours than Portuguese and Italian adolescents.

8. RELATION BETWEEN FAMILY CHARACTERISTICS, RISK AND PROTECTIVE FACTORS AND DRUG USE: PREDICTIVE EFFECTS.

8.1. Global sample

The major question, to which an answer was sought, was the following: what is the relation between family variables assessed in the survey and the various types and degrees of substances' use? Will the obtained data invalidate the hypothetical relations of influence (of family variables over substances' use) present in our model?

In order to find this answer we carried out multiple regressions (linear and stepwise) in which we considered 10 family variables as independent variables (I.V.). These variables were re-coded as follows: dimensions of family functioning – (1) cohesion, (2) adaptability and (3) type of family; dimensions of family coping – (4 to 8) the five factors of F-Copes; (9) family attachment and absence of conflict (final score of FAACS); and, finally, (10) parental response to discipline and anti-social behaviours (final score of PRAS-DASB).

As dependent variable (D.V.), we consider, one by one, the 8 variables related to substances' use: (1) tobacco during lifetime; (2) tobacco over the last 30 days; (3) alcohol in a lifetime; (4) alcohol over the last 30 days; (5) five or more alcoholic drinks in the last 15 days; (6) marijuana in a lifetime; (7) marijuana over the last 30 days; (8) other illegal drugs.

According to these results, the influence of family variables on substances' use is clearly established, with some interesting deviations. In our sample, the substances most frequently used (tobacco and alcohol, excluding the pattern "5 or more alcoholic drinks") seem to be more easily explained by family variables (and their inter-action) than the other substance use (5 alcoholic drinks, marijuana, other drugs). We can say so because the first substances are better explained by family variables (20% of variance, in opposition to 10% and 4% in other drugs).

Knowing well that factors other than family ones, co-influence substances' use (Brook & col., 1990; Weiner, 1995; Arthur, Hawkins & Catalano, 95, 1996), 20% or even 10% of explained variance seem to be an important and significant percentage while explaining the variance of substance use. The variable Parental Risk Attitude towards Discipline and Anti-social Behaviours, (PRAS-DASB) assumes an important place among other family variables, due to its significance level and consistent

Table 36

I.V. (Family Variables) x D.V. (Drug Use)
(Multiple Linear Regressions*)

D.V. Drug Use	**Tobacco F=26.3**	**Tobacco 30 Days F=39.1**	**Alcohol F=28.7**	**Alcohol 30 Days F=26.7**
I.V. (10) Family V.	Fam. Attach. (-) Par. Risk Att. (+)	Acq. Acc. Help (-)	Spiritual supp. (+)	Par. Risk Att. (+)
p =.0001		Passive Appr. (-) Par. Risk Att. (+)	Acq. Acc. Help. (-) Par. Risk Att. (+)	
R2	.2	.2	.2	.2
%Variance	20%	20%	20%	20%
D.V. Drug Use	**≥ 5 Drinks 15 Days F=10.9**	**Marijuana F=11.7**	**Marijuana 30 Days F=8.1**	**Other Drugs F=4.7**
I.V. (10) Family V.	Passive Appr. (-) Par. Risk Att. (+)	Par. Risk Att. (+)	Par. Risk Att. (+)	Par. Risk Att. (+)
p =.0001				
R2	.1	.1	.1	.03
%Variance	10%	10%	10%	3%

* Throughout the presentation of results in this section , the I.V. appearing in the Tables are the ones that show statistic significance.

association with all types of substances' use. This finding and the correlation direction which is positive (+) - the higher the variable the greater the substance use - confirm its character as a risk factor. It is, in fact, the only influential and statistically significant family variable in the use of marijuana, alcohol (5 drinks) and other drugs.

Thinking of tobacco use during the lifetime, the influence of Family Attachment and Absence of Conflict (FAACS) should be stressed as a protective factor, since their correlation has a negative direction (-). In relation to other types of substance use (with the exception of the last three) the variables which stand out as protective factors are Family Coping dimensions, specifically Mobilising Family to Search and Accept Help (FC4) and Passive Appraisal (FC5). However, in relation to the use of alcohol, the family coping dimension or strategy Seeking Spiritual Help, appears to be influential in the same direction, i.e., when this coping strategy increases, so does substance use); in other words, it works as alcohol use predictor. It is important, now, to find out how variable inter-action works, using the stepwise procedure.

This statistic procedure allows us to conclude that parental attitudes towards discipline and anti-social behaviours is the family variable that explains a greater percentage of variance in all types of substance use, even considering the inter-action of the variables (cf. Table 37). We can also see that family coping factors (FC4 and FC5), that work as predictors of family protection in terms of tobacco use (in general) and alcohol (during a lifetime), also appear in these new equations.

Any way, we can stress now two new findings: 1) in relation to tobacco's use over the last 30 days, the variable of family functioning, Cohesion, is positively influential; 2) in relation to the use of 5 alcoholic drinks in the last 15 days, the variable of family functioning, Adaptability, appears in the equation, inversely correlated, i.e. working as a protective factor of non-substance use. However, its contribution towards the explanation of variance is relatively small.

Table 37
I.V. (Family Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
I.V. (10) Family V	Par. Risk Att. (+) 15%	251.15	Par. Risk Att. (+) 22%	416.7	Par. Risk Att. (+) 16%	272.69	Par. Risk Att. (+)	250.55
					Acq. Acc. Help (-)	139.33		
	Fam. Attach. (-)	129.55	Passive appr. (-)	211.84	Spiritual Supp. (+)	94.5		
			Cohesion (+)	143.46				
R^2	.15		.23		.16		.15	
%Variance	15%		23%		16%		15%	

D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**	
	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
I.V. (10) Family V	Par. Risk Att. (+) 5%	69.93	Par. Risk Att. (+)	112.7	Par. Risk Att. (+)	67.21
	Adapt. (-)	26.9				
	Passive appr. (-)	38.12				
R^2	.05		.08		.05	
%Variance	5%		8%		5%	

In synthesis, the following can be concluded: 1) the variance of substances' use is explained , in an important and statistically significant way, by the family variables considered in the survey; 2) the alcohol and tobacco use in a lifetime are better explained by those variables ; the increase in alcohol and other drugs use (such as marijuana) is explained by them in a lesser percentage; 3) among those family variables a strong risk factor (PRAS) can be identified, as well as some protective factors related to family coping and even with family functioning. 4) in this last aspect (protective factors) the different kinds of substances' use can also be divided into the same two groups referred to before (in 2): Attachment and Family Coping associate mainly with tobacco and alcohol use during life time. Only in other substance use does family functioning (Adaptability) appear directly as a protective factor. Thus, these two groups of substances' use seem to be qualitatively differentiated in terms of protective family factors; 5) the risk factor detected in the survey (Parental Attitudes towards Discipline and Anti-Social Behaviour) is always a better predictor of substance use variance than the protective factors.

In order to continue with an explanation of the results and following our conceptual model, it is important to clarify the relations between family functioning variables (as independent variables) and the risk and protective factors initially identified (as dependent variables). It should be stressed that, in the previous analysis, the risk factor was globally confirmed as such, and the protective factor appeared to be relevant just in tobacco use.

The Stepwise Regressions carried out provided the following results detailed in Table 38. In view of these results, the relation of the influence of family functioning variables over parental risk attitudes towards discipline and anti-social behaviour, as well as over family attachment and understanding, is clearly expressed. However, in the first case it is important to stress that this influence is always inversely exerted (the values of family functioning dimensions increase as those of Parental Risk Attitudes fall). In the second case the opposite happens.

It should also be noted how different dimensions of Family Coping appear to be differently associated to the two variables under study. Two strategies of external coping (Seeking Spiritual Support and Family Mobilisation to Seek and Accept Help) influence, positively and directly, Family Attachment, whereas the Acquisition of Social Support (external coping) and the Passive Appraisal (internal coping) influence, negatively and directly, Parental Risk Attitudes. As it can be seen, in general this data is coherent with the previously defined relations.

Table 38

I.V. FAMILY FUNCTIONING X D.V. RISK (PRAS) AND PROTECTIVE (FAACS) FACTORS (STEPWISE REGRESSION)

D.V.	Family Attachment and Absence of Conflict (FAACS)		Parental Risk Attitudes (PRAS)	
	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
I.V. (8) Family Functioning	Fam. Type (+) 11%	193.09	Cohesion (+) 4%	70.12
	Cohesion (+)	110.73	Fam. Type (-)	42.21
	Spiritual Supp. (+)	77.23	Acq. Social Support. (-)	31.45
	Adapt. (+)	60.13	Passive appr. (-)	25.07
R^2	.14		.06	
%Variance	14%		6%	
	Cohesion (+) Adapt. (+) Spiritual Supp. (+) 14%	79.26		
	Acq. Acc. Help (+)	61.05		
R^2	.14			
%Variance	14%			

The variables of family functioning (Cohesion, Adaptability and Type of Family) are those which better explain this relation, whose values are greater in protective factors (FAACS, 14% of variance) than in risk factors (PRAS, 6% of the variance).

We can, thus, assume the existence of an indirect influence of family functioning variables over substances' use, which, despite the lack of empirical studies in this investigation, has a solid and coherent theoretical basis. Consequently, we believe that it will also be empirically evaluated in future research studies.

To conclude this results analysis and in order to study the inter-action between family coping and family functioning, we have carried out some multiple regressions in which both sets of variables were considered, alternately, as independent and dependent variables.

Table 39

I.V. (Family functioning) x D.V. (Family Coping)
(Multiple Linear Regression)

D.V. Family Coping / I.V. Family Functioning	Acq. Social Support		Reframing		Seeking Spiritual Support		Mobil. Fam. Acq. Acc. Help		Passive appraisal	
	β	R^2	β	R^2	β	R^2	β	R^2	β	R^2
Cohesion	.19		.18		.34		.14		.11	
Adaptability	.18	.10	.16	.09	.10	.16	.16	.06	.13	.04
Family Type	.30	.09	.27	.07	.35	.12	.23	.05	.19	.04
p=0.000										

Table 40

I.V. (Family Coping) x D.V. (Family functioning)
(Stepwise Regressions)

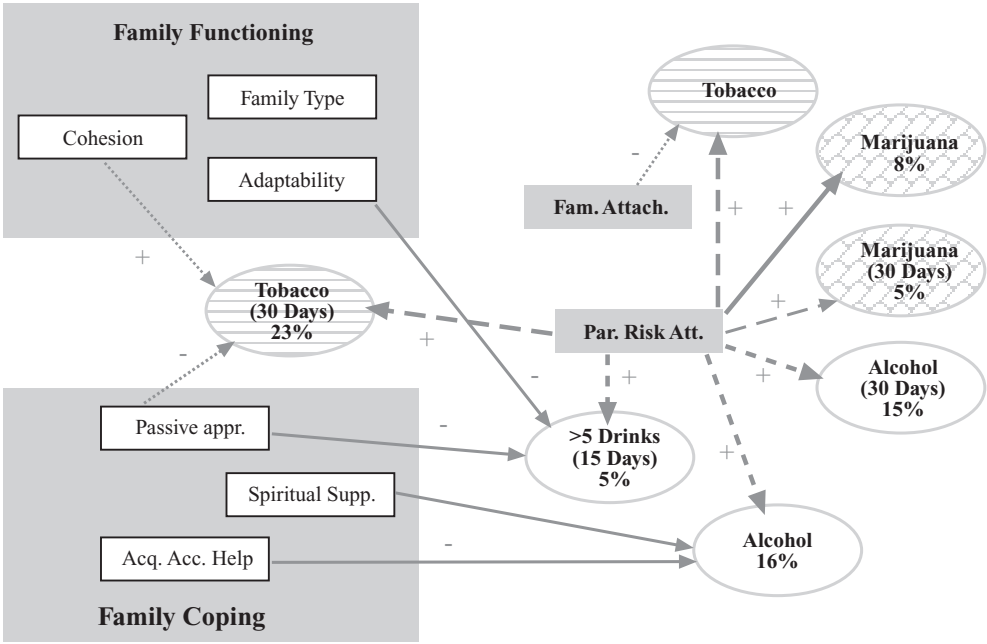
D.V	Cohesion		Adaptability		Family Type	
Family Functioning	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
I.V. (6) Family Coping and Dimensions	Fam.Coping (+) 10%	190.1	Fam. Coping (+) 10%	183.2	Fam. Coping (+) 20%	284.5
	Spir. Supp. (+)	109.4 (+)	Spir. Supp. (+)	102.8	Spir. Supp. (+)	167.5
R2	.1		.1		.2	
% Variance	10%		10%		20%	

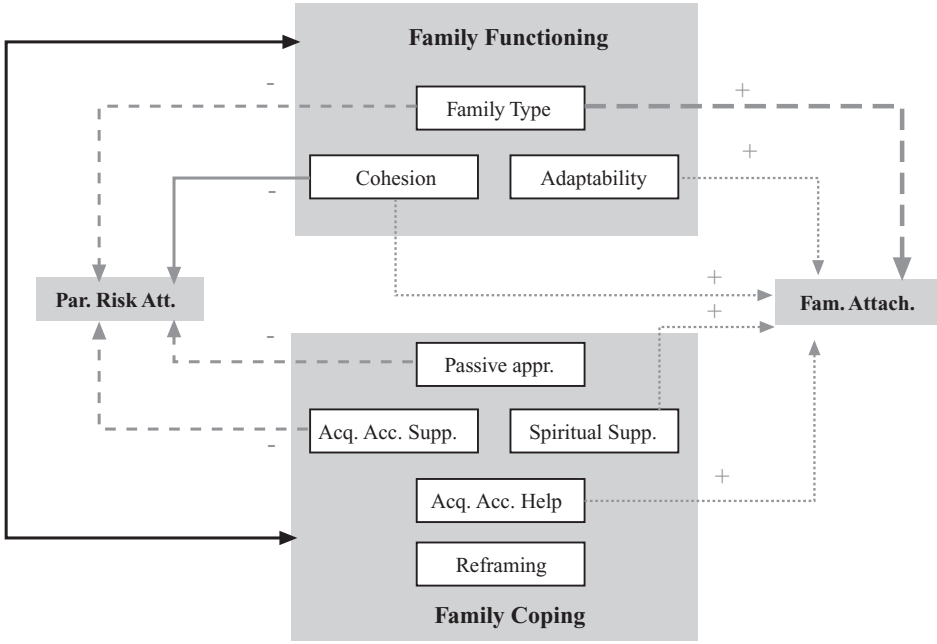
The results shown on Tables 39 and 40 do not invalidate the inter-influence of the variables foreseen in our conceptual model: important percentages of variance (between 5% and 20%, more or less) with a positive correlation between variables, can be observed. Specifically, as the coping values increase, so family functioning ones do, and vice-versa. It should also be stressed, the main relevance of both global levels of assessment -Type of Family and Family Coping.

Aiming a visual reading of a global synthesis of all information on this topic Figure 3 was drawn.

Figure 3

Global Sample





The empirical study of relations between variables, in the global sample, could only be completed after the analysis of the demographic variables' effect on substances' use (variables 3 to 13 - age, school grade, gender, family aggregate, older and younger siblings, schooling level of father and mother, father's and mother's age, area of residence).

Table 41
I.V. (Demographic Variables) x D.V. (Drug Use)
(Multiple Linear Regressions)

D.V Drug Use	Tobacco F=7.4	Tobacco 30 Days F=29.7	Alcohol F=14.2	Alcohol 30 Days F=10
I.V. (11) Demographic variables p=.0001	Age (+) School (+) Gender (+) Older Brothers (+)	Age (+) School (+) Gender (+) Younger Brothers (-)	Age (+) Gender (+) Fam. Type (+) Younger Brothers (-)	Age (+) Gender (+) Younger Brothers (-) Father's Age (-)
R2 %Variance	.1 10%	.2 20%	.1 10%	.1 10%

D.V. Drug Use	≥ 5 Drinks 15 Days F=4.1	Marijuana F=4.1	Marijuana 30 Days F=2.9 (n.k.)
I.V. (11) Demographic variables p=.0001	Age (+) Gender (+) Younger Brothers (-)	Age (+)	
R2 %Variance	.038 4%	.041 4%	

Reading Tables 41 and 42 we realise that the age of the subject is the demographic variable which most positively influences substances' use (more explanatory and always present): as age increases, so do all types of substances' use. It is an expected and predictable conclusion but its confirmation should be referred to. The variable gender (by error, not included in the Stepwise Regression) also seems to influence all substances' use (except marijuana), pointing towards a greater correlation between substances' use and the male gender. The school grade, as predicted, is associated to tobacco use in the linear regression (in the same direction).

Table 42

I.V. (Demographic Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (10) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+) 4%	52.31	Age (+) 17%	250.01	Age (+) 8%	105.25	Age (+) 6%	82.87
	Older Brothers (+)	30.53	Younger Brothers (-)	132.74	Younger Brothers (-)	56.94	Younger Brothers (-)	45.46
	School (+)	21.86	School (+)	90.55	Father's Age (-)	39.44	Mother's Age (-)	32.35
R^2 %Variance	.05 5%		.18 18%		.09 9%		.07 7%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (10) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+)	33.47	Age (+)	32.40	Age (+) 2%	18.37	School (+)	5.51
					Residence (-)	11.32		
R^2 %Variance	.03 3%		.03 3%		.02 2%		.01 1%	

However, these empirical analyses do highlight some aspects, which are not entirely predictable, such as: 1) in the same way as family variables do, tobacco and alcohol (during life time and over the last 30 days) are the substances whose variance is most explained in our research; the other types of substances' use simply do not appear to be associated to demographic variables, or the variance percentages explained are irrelevant (< 5%); 2) as predictors variables there are also the siblings group (the existence of older brothers, positively correlated with tobacco use during lifetime; the existence of younger brothers, negatively correlated with substances' use), and the parents' age (older fathers are correlated with less alcohol use and older mothers with less alcohol use over the last 30 days).

Finally, it should be stressed that, in general, demographic variables are less powerful than family variables, when explaining the variance of substances' use. This seems to be an important conclusion when confronted with our pre-defined conceptual model as well as in preventive terms.

In the studies of all sub-samples, the type of reasoning and procedures used in the study of the global sample were generically followed.

However, only stepwise regressions were used and no linear regressions were carried out. On the other hand, in all variables studied there was no evaluation of the relation between functioning and family coping variables, because it seemed to us an aspect of more theoretical than practical implication.

The results (cf. Table 43) follow the general trend found in the global sample, namely in the importance of the influence of Parental Risk Attitudes (in the areas of discipline and anti-social behaviour) over all types of substances' use. Once again it was realised that the factors of family coping and functioning, which are part of the equation, always have a protective dimension because of their negative correlation with

Table 43

I.V. (Family Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+) 17%	96.18	Par. Risk Att.(+)	143.4	Par. Risk Att.(+) 21%	132.87	Par. Risk Att.(+) 14%	79.34
	Fam. Attach. (-)	54.72			Acq. Social supp. (-)	72.02	Fam. Attach.(-)	43.77
	Cohesion (+)	40.91					Acq. Social supp. (-)	31.37
R^2 %Variance	.2 20%		.23 23%		.23 3%		.16 16%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (10) Family V	Par. Risk Att.(+)	18.69	Par. Risk Att.(+)	22.72	Par. Risk Att.(+)	28.03	Par. Risk Att.(+)	28.18
	4% Passive Appr. (-)	11.75	5% Adapt. (-)	15.22				
			Cohesion (+)	12.26				
R^2 %Variance	.04 4%		.07 7%		.06 6%		.06 6%	

substances' use. This is also true in the cases of Family Attachment and Absence of Family Conflict. The only exception is the dimension Cohesion which, when increasing, favours tobacco and marijuana use. We could question ourselves whether or not this data does not point towards the necessity of separation and individualisation of adolescents which, if made difficult, could express as the "substances use symptom". Finally, it is important to note the importance of the strategy (external) of family coping -Acquiring Social Support (seeking support within the extended family, neighbours and friends) as protective factor against alcohol use. This could lead us to think that a good integration in a closer, affective environment (together with Family Attachment) is of great importance towards the non- use of alcohol.

As in the global sample, we conclude that family variables and their inter-action are those that better explain the tobacco and alcohol use (less problematic) as opposed to other drugs or alcohol abuse (various types of drink).

Table 44
I.V. (Family Functioning) x D.V. (Risk and Protective Factors)
(Stepwise Regression)

D.V.	Family Attachment and Absence of Conflict (FAACS)		Parental Risk Attitudes (PRAS)	
I.V. (8) Family Function	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Fam. Type (+) 12%	70.2	Cohesion (-) 10%	56.87
	Acq. Acc. Help (+)	42.62	Acq. Social Supp. (-)	39.08
	Spiritual Support. (+)	30.7	Passive Appr. (-)	28.3
R^2	.15		.14	
%Variance	15%		14%	

Also in the study of the relations between the variables of family functioning with Family Attachment, as well as with Parental Risk Attitudes, the behaviour of the Portuguese sub-sample is identical to that of the global sample, as can be seen in Table 44. It should, however, be noted that the influential variables are fewer, the relevant ones being, towards Family Attachment the positive influence of Family Type (the more balanced it is the greater the attachment) and in the case of Parental Risk Attitudes, the inverse influence of Cohesion (the greater the cohesion, the less the parental risk attitudes).

Both influential variables alone account for the 10% of the results' variance obtained for dependent variables. It seems here that there is some contradiction in relation to the effect previously pointed out for dimension Cohesion in relation to substances' use. However, if we think that we are dealing with a family functioning variable, which influences parental attitudes, we could assume that, if bonds between members of one family, when in excess, hinder adolescent autonomy, they are absolutely necessary so that parents can, more easily, assume the pro-disciplinary attitudes the adolescent also needs. More easily because it is only within an environment of strong family relationships that it is possible to frame these kind of attitudes, which may give rise to important feelings of frustration and guilt from both sides.

On the other hand, the more easily parents deal with disciplinary aspects, namely in relation to anti-social behaviour, the more a good insertion within the nearest social environment can be coherently articulated, as indicated by other factors' effect, such as the ability of the family to acquire social support.

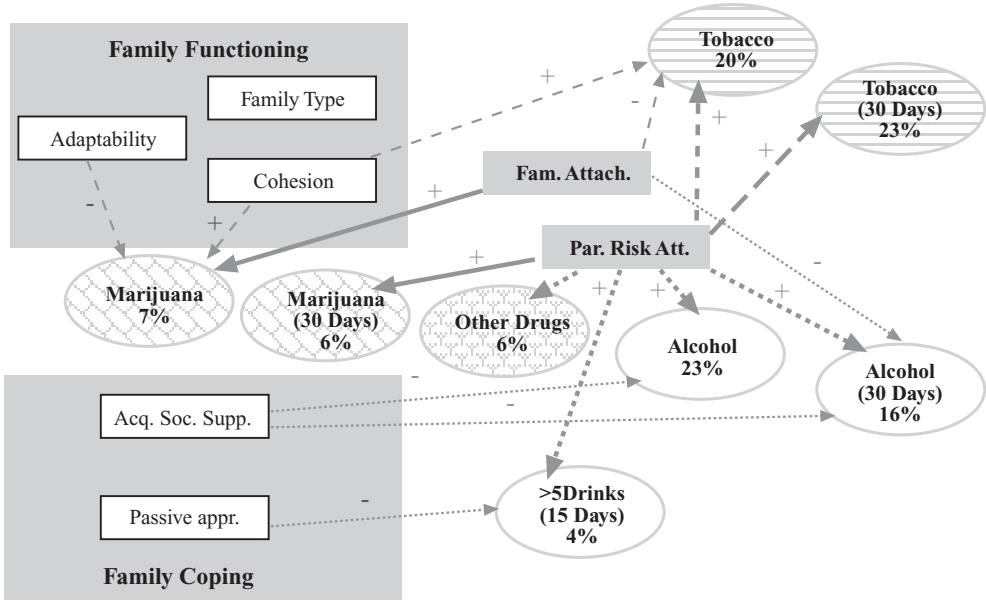
Fig. 4 shows a global synthesis of the analysis of these relations between family variables and substances use, in accordance with our conceptual model.

We conclude this issue with the analysis of the effect of the demographic variables in the different types of substances' use in the Coimbra sub-sample.

Reading Table 45 we conclude that, once again, these results follow the trend of the global sample: the age of the subject is the variable which better explains the majority of substances' use. However, some interesting aspects should be stressed: 1) tobacco use is positively correlated with the existence of older brothers/sisters; 2) the schooling level of the father also seems to influence alcohol use in the same positive way; 3) the age of the father influences (in the same direction) marijuana and other drugs' use. However, this variance' s percentage explained by the father's age is rather reduced (2%). Despite this low percentage, and considering that Portuguese adolescents are not only the greater consumers of marijuana over the last 30 days, but also those who have more frequently tried other illegal drugs, the influence of the father's age should not be ignored (besides, this influence is statistically significant, and the father's age is the only predictor variable in the equation); 4) in the case of the Coimbra sample, the demographic variables explain, through relevant percentages (though not higher than those for family variables) the alcohol and tobacco use, particularly the tobacco use over the last 30 days. This way, the variable "Age" is outstanding, it positively explains, all by itself, 20% of the variance in this kind of substances' use (the age increases, so do substances' use).

Figure 4

Coimbra Sub-Sample



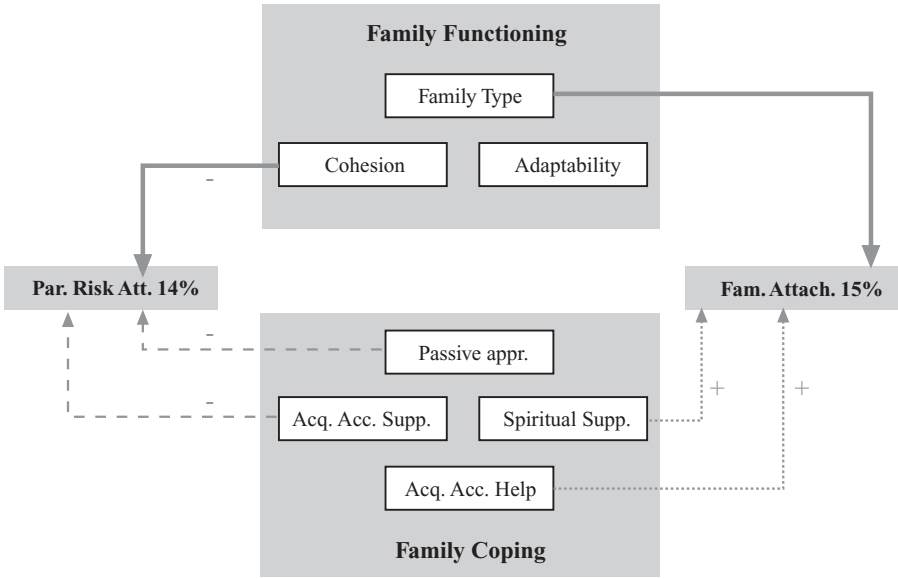


Table 45
I.V. (Demographic Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	Tobacco		Tobacco 30 Days		Alcohol		Alcohol 30 Days	
I.V. (10) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+) 10%	45.77	Age (+) 20%	104.49	Age (+) 12%	60.51	Age (+) 7%	32.74
	Gender (+)	26.17	Gender (+)	64.16	Father's Ac. Level (+)	33.90	Gender (+)	19.33
			School (+)	46.66				
	Older Brothers (+)	19.23	Older Brother (+)	37.57	Gender (+)	25.53		
R^2	.12		.26		.15		.08	
%Variance	12%		26%		15%		8%	

D.V. Drug Use	≥ 5 Drinks 15 Days		Marijuana		Marijuana 30 Days		Other Drugs	
I.V. (10) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+)	19.34	Age (+)	15.04	Father's Age (+)	9.49	Father's Age (+)	9.87
R^2	.04		.04		.02		.02	
%Variance	4%		4%		2%		2%	

8.3. MADRID SURVEY

We will begin by analysing the stepwise regression which study the influence of family variables on substances' use (cf. Table 46).

The interpretation of Table 46 gives us the following data: 1) family variables explain the variance of tobacco, alcohol and marijuana use (during lifetime) in fairly important percentages – particularly tobacco use in the last 30 days (28%); 2) alike in the global sample, the variable parental risk attitudes is the more influential one in all the other kinds of substances' use, always as a risk factor. However it is not the only one. In the same direction emerges the effect of the Attachment and Absence of Family Conflict variable in the alcohol and marijuana's use (both in the last 30 days) and in other drugs' use (although with a very low explanatory percentage).

The effect of the Family Type variable, on the consumption of 5 or more alcoholic drinks in the last 15 days, is also found; 3) about protective factors we can see that Adaptability and Mobilising Family to Acquire and Accept Help (an external coping strategy) emerge as inversely influential variables on substances' use (in relation to tobacco and 5 or more alcoholic drinks).

Table 46
I.V. (Family Variables) x D.V.(Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+) 20%	78.45	Par. Risk Att.(+) 26%	113.62	Par. Risk Att.(+)	97.63	Par. Risk Att.(+) 17%	67.03
	Adapt. (-)	43.76	Acq. Acc. Help. (-)	61.42			Fam. Attach (+)	39.15
R^2 %Variance	.22 22%		.28 28%		.23 23%		.2 20%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+) 12%	43.03	Par. Risk Att.(+)	31.3	Par. Risk Att.(+) 2%	8.57	Par. Risk Att.(+) 2%	5.25
	Adapt. (-)	24.46			Fam. Attach (+)	7.03	Fam. Attach (+)	5.18
	Fam. Type (+)	18.03						
R^2 %Variance	.15 15%		.09 9%		.04 4%		.03 3%	

Besides the highly explanatory value of parental risk attitudes, favourable to the lack of discipline and anti-social behaviours, as risk factors, the remaining data deserves attention. In fact, one should not expect the variables attachment, absence of family conflicts or even type of family to correlate in a positive way with or lead to

some substances use, since the mean values of these variables in the Spanish sample do not deviate much from the ones in the global sample. However, considering the variables that act in favour of substances use and their interaction, we may suppose that, in this sample, conflict absence and the proximity of the family members is associated to parents' inability to impose rules or having some repressing attitudes towards their adolescent children. In short, the family harmony may have an effect of *"laissez-faire"* which may cause its positive correlation with parental risk attitudes towards substances use; family harmony may become, this way, a predictor factor of use of drugs.

Table 47
I.V. (Family Functioning) x D.V. (Risk and Protective Factors)
(Stepwise Regression)

D.V.	Family Attachment and Absence of Conflict (FAACS)		Parental Risk Attitudes (PRAS)	
I.V. (8) Family Functioning	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Fam. Type (+) 11%	40.78	Fam. Type (-)	28.94
	Cohesion (+)	23.82		
R^2	.13		.08	
%Variance	13%		8%	

Table 47 shows how both dependent variables have their variance explained by the Family Type (in opposite directions, as expected). Cohesion is also influential (in the same direction) for Attachment and Absence of Family Conflict. It is interesting to notice that there is no coping factor affecting the dependent variables, as it does in the global sample.

In order to conclude the study of the variable relations in the Madrid sample and having in mind the survey's conceptual model we have drawn Figure 5.

As previously done with the other samples, we end the empirical study of the Spanish sample data, with the analysis of the relations between demographic variables and substances use (cf. Table 48).

The variance of substance's use explained by the demographic variables - in this case almost exclusively the subjects' age - is much lower than the one explained by family variables. Even so, it is more meaningful in the case of tobacco and alcohol's use, although they must not be ignored in the more "complex" alcohol (5 drinks) and marijuana's use (during lifetime).

In spite of all this, we should notice that the influence that the above variables have in the Spanish sample is slightly higher than in the global sample, reminding us that this sub-sample shows the highest substances use rate of all sub-samples.

Figure 5

Madrid

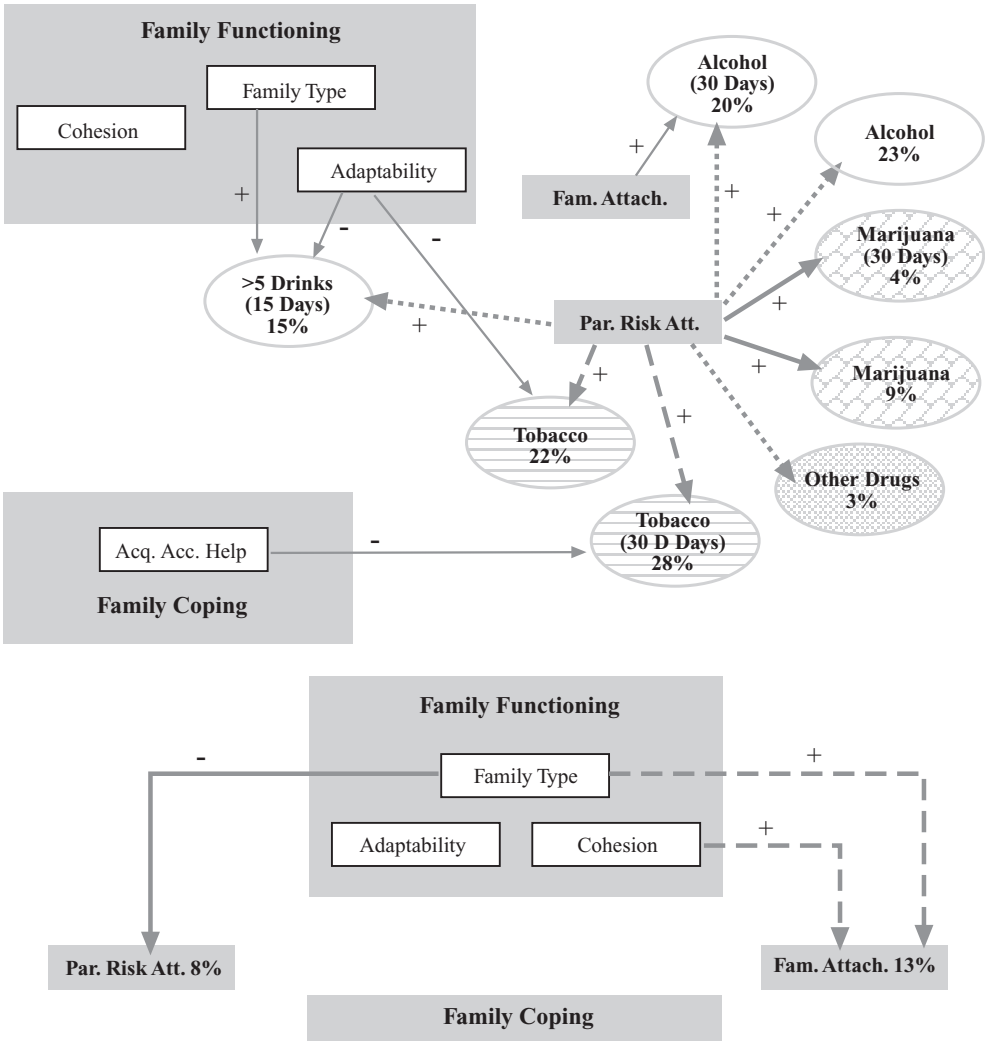


Table 48

I.V. (Demographic Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (11) Demographic variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+)	41.58	School (+) 18%	81.02	Age (+)	56.29	Age (+)	41.05
			Age (+)	43.3				
R^2	.1		.19		.13		.1	
%Variance	10%		19%		13%		10%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (11) Demographic variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+)	18.47	Age (+)	18.95	Age (+)	13.87	Age (+)	9.53
R^2	05		.05		.04		.03	
%Variance	5%		5%		4%		3%	

We begin by presenting the results of the analysis of the influence of family variables on substances' use (cf. Table 49).

Table 49
I.V. (Family Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+) 5%	12.42	Par. Risk Att.(+) 11%	30.5	Par. Risk Att.(+) 8%	21.73	Par. Risk Att.(+) 13%	38.37
	Reframing (-)	8.87	Acq. Acc. Help. (-)	17.91	Acq. Acc. Help. (-)	14.64	Passive Appr. (-)	21.66
R^2	6%		.12		.1		.15	
%Variance	06		12%		10%		15%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Reframing (-)	7.76	Par. Risk Att.(+)	33.19	Par. Risk Att.(+)	40.08	Par. Risk Att.(+)	35.52
R^2	.03		.12		.14		.12	
%Variance	3%		12%		14%		12%	

From the present results, and as in the previous samples, the constancy and importance of family variables (namely Parental Risk Attitudes) stand out in terms of explained variance percentage in almost all substances use (except for the use of 5 or more alcoholic drinks in the last 15 days, although the explained percentage in that variable is a small one - 3%). At the same time, but in the opposite direction, the influence of some family coping strategies over substances' use becomes clear: 1) the family's ability to redefine the stressful events - Reframing - correlates in an opposite direction with tobacco use (during a lifetime) and with the consumption of five or more alcoholic drinks (in the last fifteen days). That is, when family self-reliance is high,

those substances' use diminishes; 2) The Acquiring Social Support strategy is also negatively associated with the use of tobacco (last 30 days) and alcohol (lifetime use); 3) the Passive Appraisal strategy appears as a behaviour pattern negatively correlated with the use of alcohol (last 30 days).

Finally, it is important to stress two other interesting aspects of these results: 1) unlike what happens in the global sample, the variance percentages explained by family variables, more than statistically significant they are important in all substances' use and not only in relation to alcohol and tobacco; 2) no specific family functioning variable was used in the explanatory equations. The same happens with attachment and absence of family conflicts. It seems, then, that we don't find in this sub-sample the tendency verified in the other cities where the more problematic substances' use "escape", somehow, from the influence of family factors (they may, perhaps, be explained, then, by other factors, like the peer group, for instance). In the Modena sub-sample family still seems to have a great importance in these kind of substances' use…

Like in the previous studies, the relation of the family functioning variables with the family's attachment and parental risk attitudes is clear (cf. Table 50). The explanation is particularly important in Family Attachment (25% of the variance) and it is based on the interaction of the following variables: family type, cohesion and social support acquisition that run in the same direction.

Table 50

I.V. (Family Functioning) x D.V. (Risk and Protective Factors) (Stepwise Regression)

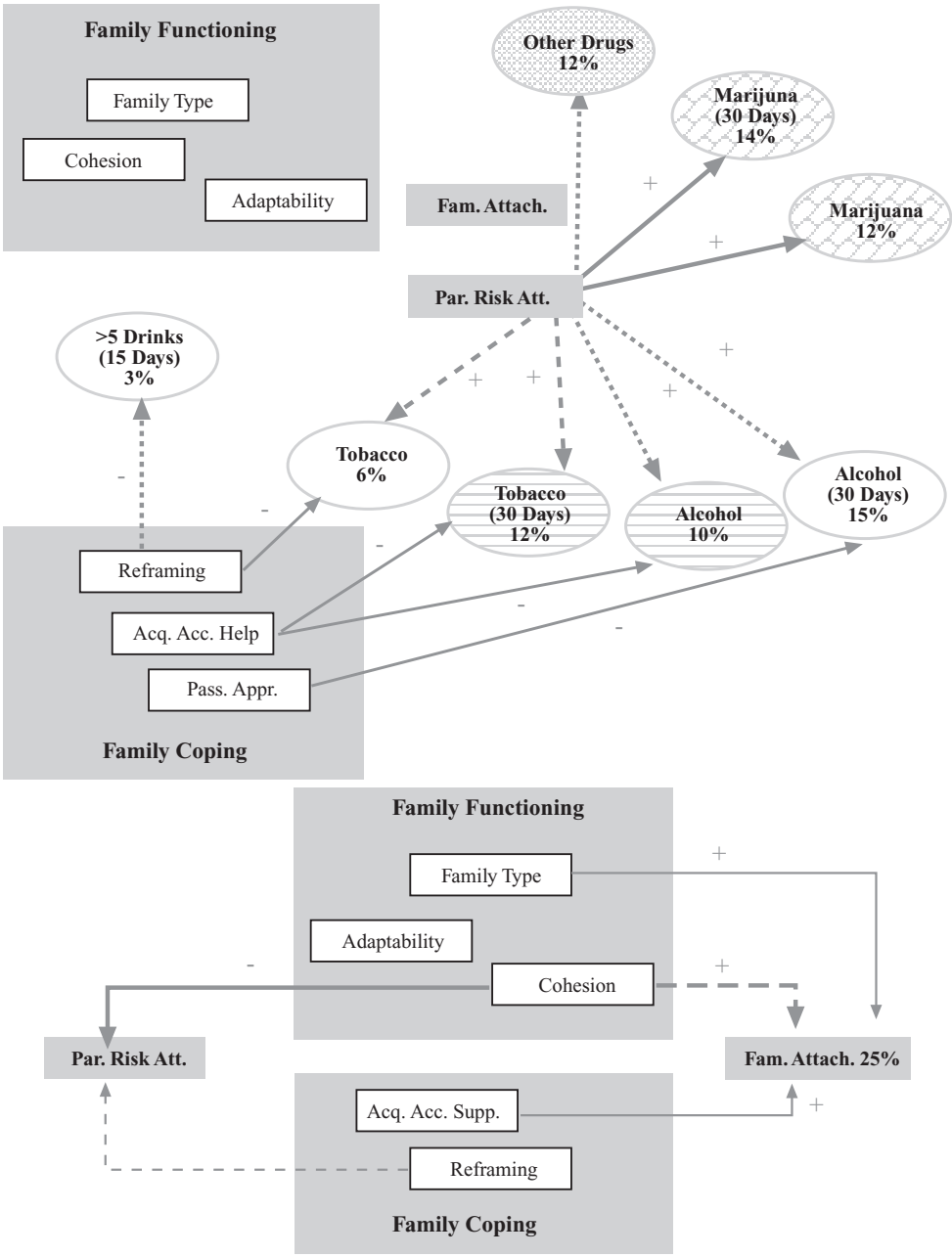
D.V.	Family Attachment and Absence of Conflict (FAACS)		Parental Risk Attitudes (PRAS)	
I.V. (8) Family Functioning	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Cohesion (+) 21%	64.13	Cohesion (-) 6%	17.03
	Fam. Type (+)	38.23	Reframing (-)	11.56
	Acq. Social Support. (+)	28.18		
R^2	.25		.08	
%Variance	25%		8%	

In the case of the Parental Risk Attitudes variable, the family's Cohesion (with 6% of the variance) and the family's reliance on its ability to face stress (Reframing) are the most influential variables (now running in the opposite direction). The interaction of these two variables explains 8% of the Parental Risk Attitudes, which is relevant, since this is the variable that most strongly predicts substances use (cf. Table 49).

As before, we now present the graphic adjustment of these results to our model. (Figure 6).

Figure 6

Modena



To round off these studies by presenting the effect of the demographic variables on substances use, we found interesting results that are quite different from the global

sample (cf. Table 51). The first aspect to be emphasised is the importance that these variables have in the prediction of all kinds of substances use. In fact, and except for alcohol use (during the lifetime), the variance percentages explained by demographic variable lies between 42% and 73%! Although the subjects' age is very important to explain tobacco and alcohol's use (this last drug just in the last 30 days), as in the global sample, that item does not appear in other kind of substances use. Moreover, several other variables arise as quite influential in the regression equations.

Thus: 1) the variables which contribute positively to tobacco use, besides age (which explains 27% of the variance) are: older siblings and a family aggregate tending to be recomposed or to include siblings, or to be different from nuclear family. On the other hand, the fathers' age contributes inversely to tobacco use; actually, the older the father, the lower the tobacco use will be; 2) besides subjects' age (which explains 21% of the variance), the father's age also influences tobacco use in the last 30 days (positively) as well as the mother's age (inversely). These two variables alone explain 54% of the variance of this substances use. This way, the inter-action of older father plus younger mother acts as a predictor of tobacco use; 3) the increasing urban or suburban residence is strongly predictive of more intense and recent alcohols use (in the last 30 days and more than 5 alcoholic drinks in the last 15 days). In both cases, the variable subject's age is associated to this kind of substances use, but in the second one, the variable family aggregate becomes extremely influential (positively directed); 4) in the case of marijuana's use, the parents' age (as it happens with tobacco's use) also influential. It interacts with the variable family aggregate, which becomes predictive of marijuana's use, as well as the number of family members reduces.

It is interesting to recall that the Italian sub-sample (the oldest one in the global sample) presents a demographic "pattern" different from all the other sub-samples, having the smallest siblings group, the oldest mothers and living mostly in a rural environment. These are precisely some of the variables that strongly predict substances use. In fact, their interaction with the variable subjects' age may point towards the fact that the increase of age provokes a kind of spacing or "distortion" from the mean values of the sample, thus strongly explaining the substances' use. In this context, it may be interesting to remind that substances' use in this sub-sample present the lowest mean values among the different sub-samples (except for the 5 drinks in the last 15 days).

Finally, and combining the relevance of the demographic aspects (of the family) with the conclusion first drawn (that family variables are more important in explaining the more problematic substances use than what happens with the sub-samples of the other cities) and recalling, also, that attachment and absence of family conflicts has its highest values in this sample, we seem to reach a new conclusion: that in the Italian sub-sample, family influence is more strongly felt at all levels (demographic, relational and functional) predicting all kinds of substances use (from the less to the more problematic ones, and functioning either as risk factors or as protective ones).

Table 51
I.V. (Demographic Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	Tobacco		Tobacco 30 Days		Alcohol		Alcohol 30 Days	
I.V. (11) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+) 23%	5.98	Age (+) 21%	5.81	Older Brothers (+)	7.16	Age (+) 27%	7.66
	Live with (+)	8.82	Mother's Age (-)	5.94			Residence (+)	7.63
	Older Brothers (+)	8.87	Father's Age (+)	6.97				
	Father's Age (-)	12.34	Variance: 50%					
			School (+) Father's Age (+) Mother's Age (-)	8.15				
R^2 %Variance	.73 73%		.54 54%		.25 25%		.42 42%	

D.V. Drug Use	≥ 5 Drinks 15 Days		Marijuana	
I.V. (11) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Residence (+) 27%	7.17	Live with (-) 20%	5.41
	Age (+)	6.83	Father's Age (+)	5.22
			Mother's Age (-)	6.83
	Live with (+)	8.11	Variance: 49%	
			Father's Age (+) Mother's Age (-)	7.86
R^2 %Variance	.56 56%		.43 43%	

We will now analyse the results of the stepwise regressions that empirically evaluate the influence of family variables on substances use in the French sample (cf. Table 52).

Table 52
I.V. (Family Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+) 14%	66.77	Par. Risk Att.(+) 19%	100.93	Par. Risk Att.(+)	43.21	Par. Risk Att.(+) 13%	65.31
	Acq. Acc. Help. (+)	39.14	Cohesion (+)	54.06			Adapt. (+)	36.02
R^2 %Variance	.16 16%		.2 20%		.09 9%		.14 14%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (10) Family V	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Par. Risk Att.(+)	26.61	Par. Risk Att.(+) 4%	17.44	Par. Risk Att.(+)	19.81	I.V. do not explaint the variance of the D.V.	
			Fam. Type (-)	13.46				
R^2 %Variance	.06 6%		.06 6%		.06 6%			

Studying Table 52 enables us to confirm the existence of the same main results achieved in similar studies undertaken in other sub-samples, that is to say the importance of the Parental Risk Attitudes in association with the lack of discipline and attitudes favourable to anti-social behaviours. Again, we find a major explicative influence of family variables on the tobacco and alcohol use (except for the recent use of 5 or more alcoholic drinks) (with an explicative percentage of the variance between 9% and 20%, or higher in the case of tobacco's use).

As to the variables whose effects are inverse of increased substances' use, we found: 1) the external strategy of family coping, which means the family ability to seek and accept help from the community and its resources (Mobilising Family to Acquire and Accept Help), associated with the tobacco's use; 2) Family Type comes associated with the marijuana's use (the more balanced the family is, the smaller the tendency to this substance's use).

Two other variables of the family functioning, however, appear as positively correlated with alcohol and tobacco's use in the last 30 days. We are talking of Family Cohesion (influential on tobacco's use) and of Adaptability (related with alcohol use). These results seem to be able to help in giving consistence to the hypothesis previously pointed out on the "perverse" effects of these variables. They are theoretically and generally adequate when they are "isolated", but transform themselves in risk factors when they interact with the risk factor Parental Risk Attitudes. Basicaly, when family cohesion and flexibility are too excessive, the road to less assertive parental attitudes is open. It seems important, then, carry out do an empirical study of this interaction and its meaning in future surveys. Obviously one must not forget, of course, the cultural factor that may influence the predicting effect of these variables.

Still based on the data of the French sample, we can now see the effect of family variables on Family Attachment and Absence of Conflict (that, as we have already discovered, does not have any statistically significant effect on substances' use in this sub-sample) as well as on Parental Risk Attitudes (cf. Table 53). It is no surprise, then, that the results achieved in this study follow the direction already expected in theory, because, and accepting the previous hypothesis, the variables now emerge "uninfected" by each other and, particularly, in respect to substance use . The family flexibility

Table 53
I.V. (Family Functioning) x D.V. (Risk and Protective Factors)
(Stepwise Regression)

D.V.	Family Attachment and Absence of Conflict (FAACS)		Parental Risk Attitudes (PRAS)	
I.V. (8) Family Functioning	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Adapt. (+) 13%	66.54	Adapt. (-)	14.02
	Cohesion (+)	39.11		
	Reframing (+)	28.7		
	Spiritual Support. (+)	23.03		
R^2	.17		.03	
%Variance	17%		3%	

(Adaptability), then, is connected in a positive way with Attachment and Absence of Conflict (13% of the variance is explained by it). The same thing happens with Cohesion (bonds and familial affiliation), and also with internal coping strategy which consist of family confidence in facing stress (Reframing). The same even happens, with the external coping strategy whose use targets the search for spiritual support as a resource (Seeking Spiritual Support). All these variables explain 17% of Attachment variable's variance.

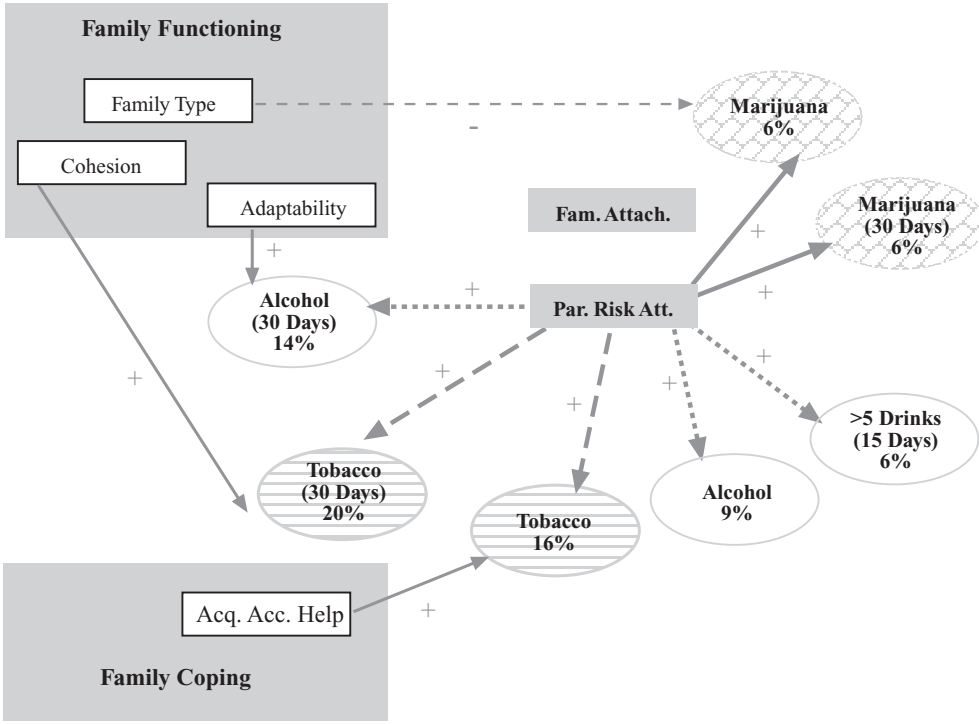
Either way, it is interesting to stress that it is in this sample, where Seeking for Spiritual Support has a significantly lower mean value, that it turns out to be more important in Family Attachment. That is to say, it appears with a similar effect to the one where the same family coping variable emerges with significantly higher values, the Portuguese sample.

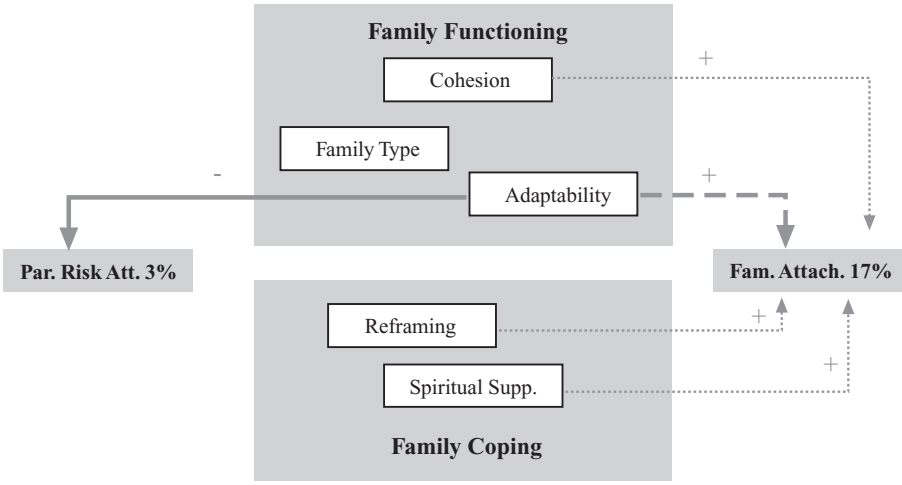
In relation to variable Parental Risk Attitudes, family Flexibility co-relates negatively with it. This shows how, in this sample, the family inflexibility inhibits parents from assuming coherent disciplinary attitudes and, at the same time, favours their pro anti-social attitudes (that is to say, separately, the family normative inflexibility does not favour the parental assertiveness).

Next we present a synthesis of the approach of the conceptual model in the sample from Lyon (cf. Figure 7)

Figure 7

Lyon





We conclude the study of the French sample by evaluating the effect of the demographic variables on substances use (cf. Table 54).

The results point towards a higher importance of the demographic variables to explain the recent tobacco use (last 30 days) and alcohol (in a life time), respectively 26% and 10% of the explained variance. In the first case, the variables subject's age, gender (mainly masculine) and schooling, are associated with tobacco use in the same direction (the higher the variables' values, the greater substances use, and vice versa). In the reverse direction emerges the father's age and the existence of younger brothers.

In the case of alcohol use (during lifetime), age disappears as the most influential variable and its place is taken by the variable "school grade". The remaining variables keep identical directions of influence to the ones in tobacco use (this group of variables explains 10% of the variance of this kind of alcohol's use). In recent alcohol's use, the variables age, subject's gender and number of younger siblings (negatively co-related with alcohol's use) explain 6% variance.

We can still notice that, in other kind of substances use, the percentages of explained variance is statistically very small (1% to 3%), although they are significant. To conclude, it is interesting to stress that in the French sample the subjects' age does not affect the tobacco and alcohol use (during the lifetime), as happens in the global sample and in the other cities' sub-samples.

Table 54

I.V. (Demographic Variables) x D.V. (Drug Use)
(Stepwise Regressions)

D.V. Drug Use	**Tobacco**		**Tobacco 30 Days**		**Alcohol**		**Alcohol 30 Days**	
I.V. (11) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Gender (+) 1%	6.22	Age (+) 18%	86.31	School (+) 3%	14.3	Age (+) 4%	15.13
	Younger Brothers (-)	6.18	Gender (+)	55.72	Gender (+)	13.55	Younger	11.59
			Younger Brothers (-)	41.11	Father's Age (-)	11.65	Brothers (-)	
			Father's Age (-)	32.47	Younger Brothers (-)	11.2	Gender (+)	9.62
			School (+)	27.42				
R2 %Variance	.03 3%		.26 26%		.1 10%		.06 6%	
D.V. Drug Use	**≥ 5 Drinks 15 Days**		**Marijuana**		**Marijuana 30 Days**		**Other Drugs**	
I.V. (11) Demographic Variables	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)	Var. Entered; Cor. Signal	F-test (Steps)
	Age (+)	5.68	Age (+)	11.95	Age (+)	5.63	I.V. do not explain the variance of the D.V.	
R^2 %Variance	.01 1%		.03 3%		.02 2%			

9. CONCLUSIONS OF THE SURVEY AND IMPLICATIONS FOR PREVENTION PROPOSALS

From Descriptive Analysis

Most of the family and demographic variables show highly significant differences in the four sub-samples. We must, however, accept this conclusion with some precaution since the quite high **n** in the samples facilitate it. So such differences must be analysed also because of their explanatory theoretical value.

A. Some, almost permanent characteristics, may be taken from the descriptive analysis of the demographic variables distinguished in all sub-samples:

• The distribution of subjects is balanced in terms of gender.

• There is a predominance of nuclear families (with or without children) and of not very large siblings groups (0 - 3 siblings)

• There is a predominance of both father and mother's low schooling levels, of residence in an urban environment (except for Lyon sample) and of mothers relatively younger than fathers (except for Modena sample).

B. In the descriptive analysis, the following general tendencies can be verified in the variables linked to family dynamics.

• With respect to *family functioning* is concerned, most of families classify into the intermediate family types. Of the two dimensions of this variable, we may conclude that the *Cohesion* level is always lower than expected and the opposite happens with the *Adaptability* level (it is quite high).

• About *Family Coping* we may conclude that the sample's results show coping values lower than expected, as in the global score, as in each dimension score, except for the internal strategy Passive Appraisal.

• Concerning *Attachment and Absence of Family Conflict* it is possible to note that, comparing this variable with the *Parental Risk Attitudes* towards discipline and anti-social behaviour, the first mentioned shows quite higher mean values.

C. From the descriptive analysis of the type/pattern/product of consumption we can reach the following conclusions:

• The highest percentage of substances use refers to tobacco and alcohol (except for 5 or more drinks in the last 15 days).

• Approximately 50% of these adolescents have already tried (or smoke regularly) tobacco. This is, in fact, the most used substance in all sub-samples. However, in all samples it is possible to verify a contradiction (an irrational or paradoxical finding, if one prefers) between the variables "tried" or "use" tobacco in a life time and the variable "smoke tobacco in the last 30 days". The last variable show higher consumption levels than the first one, when the opposite should be found. Following this idea the 50% mentioned before allude, mostly, to the "encounter" or articulation between the values of these two sub-variables.

• About 20% of these adolescents smoke half (or more) a pack of cigarretes per day.

• Also consistent in the different sub-samples is the gradual reduction in use of the different kind of drugs associated with the respective danger social representation. Following this idea and from the highest to the lowest tried / usage level we find: Tobacco (in a lifetime and in the last 30 days) (associated because of the reason referred to above), alcohol (tried /consumed during a lifetime); alcohol (use in the last 30 days); alcohol (use in association with item "5" or more alcoholic drinks in the last 15 days); marijuana (in a lifetime); marijuana (in the last 30 days); other drugs.

• "Other drugs" use show very small values (around 1% or less) but from these, the new synthetic drugs are the most used. With this information we can confirm, then, the surveys and evidences (Weiner, 1995) that show 16-17 years old as the age for the real beginning of illegal drug use.

• The most intense pattern of substances use (in almost all drugs use assessed) can be found in the Spanish sample. The exception appears in the use of 5 or more alcoholic drinks in the last 15 days. In this case the Italian adolescents show the most intense pattern while the French and the Portuguese show the highest percentage range of consumers. The Portuguese sample shows the highest percentage of marijuana's use in the last 30 days (and also the most intensive pattern) as well as the highest percentage of synthetic drug used or tried. This data allows us to reach conclusions about the great danger or risk of future substances abuse within the adolescents of the Coimbra sample.

In short, we could say that the Spanish adolescents are the ones who most consume drugs habitually, and the Portuguese are the ones who most try them.

From Correlation studies

From these empirical studies we may distinguish as the most persistent conclusions the following ones:

• A larger substances use's influence of family dynamics variables (functioning, coping, attachment and parental risk attitudes) than the effect of demographic ones. From this conclusion we exclude the Modena sample.

• Of all the substances we investigated, alcohol (not taking into consideration the use of 5 or more alcoholic drinks) and tobacco's use are the variables better explained when we consider the totality of the variables (familial and demographic ones). Again, we must exclude the Modena sample from this conclusion.

• The family dynamics variables explain the tobacco and alcohol usage (except for 5 or more drinks) better than the remaining substances' use. Once again, Modena should be excluded from this conclusion.

• It was possible to identify a constant risk factor always common to all samples and almost always associated with all substances use: the parental risk attitudes towards discipline and anti-social behaviours (assessed by PRAS-DASB). However, protective factors were not always systematic or constant (neither by sample nor by substance' use).

• The family coping and the family functioning variables as well as the family attachment and absence of conflict appear more often as protective factors than as risk factors. However, when they appear as risk factors, they seem to be connected to cultural factors (for instance: seeking spiritual support) or to an inadequate intensity level in this developmental stage (for instance: excess of cohesion). It would be even more accurate to say that these variables don't have a linear effect on substances use. In fact, the predictive value of these variables, as risk or protective factors, seems to be settled by means of their own inter-action.

• As expected, the variable "age" is, almost always, relevant among demographic variables (in the sense that its increase predicts a similar increase in substances use). However, and although not in a systematic way, the parents' age and the existence of siblings (older and younger) seems to be the other most constant variables in terms of its explicative value.

• Substance use seems to be able to be classified into two major groups, in terms of their co-relation: (1) tobacco and alcohol and (2) 5 or more drinks and marijuana.

SURVEY'S IMPLICATIONS

A. Theoretical level

The proposed conceptual model seems to be globally confirmed, but this survey arises new questions arise from this survey about the indirect interaction effects of family variables on substances use, which need to be studied at a future research.

These results must be understood bearing in mind that, during adolescence, substance use is also due to the influence of a group of factors which were not actually considered, because this survey focused mainly on the family's dimension. It is obvious that we are referring to the school, the peer group and individual characteristics, among others (such as cultural and community aspects, etc.). In spite of all this, it seems possible to assume that:

• The systemic perspective on this problem is very important. The interaction effects detected amongst the predictive variables confirm this fact.

• The family dynamics factor is important, as well as risk (clearly identified) and protective factor (with a more generic character).

• Although the adolescence autonomy processes are mostly important (less cohesion, more adaptability), they should be articulated and conciliated with firm parental attitudes, which should impose on the adolescent some rules and limits.

• Family attachment and understanding (conflict absence to be more precise) alone does not seem to be the only solution to prevent substances use. Only tobacco and alcohol use is associated with these two characteristics and even then, that happens only in some of the samples. This aspect reinforces the conclusion that the absence of family conflict, as a preventive factor, is a myth and a dangerous one... In fact it may lead to the development of "laissez-faire" parental attitudes, which are the real and specific danger predicting a less balanced adolescent development.

• Family importance and influence is greater in the early stages of substances use. That influence, however, diminishes gradually as age increases and other kinds of substances are experimented with, as well as while the already mentioned factors slowly gaining influence (the influence that up until then was attributed to the family).

B. Prevention level

As we stated before, the empirical knowledge of the family risk and protective factors related with substances use during adolescence is absolutely essential so that prevention programs may be prepared. From these, we can distinguish three kinds of factors: specific, predictors and inductive ones. Keeping these postulations in mind, the investigation undertaken by the CS-FARPA project allows us to conclude that:

• Assuming that family variables are good predictive factors of early substances use (alcohol and tobacco), then the preventing programs should be implemented targeting the families whose children have not yet reached adolescence. That is to say, they should be implemented very soon (in the earliest stages).

• Those programs' aim must be the control of the specific risk factors clearly identified in this survey: the parental permissiveness towards discipline and indulgence toward anti-social behaviours.

• This goal and the proposed methodologies to achieve it should consider the fact that parental assertiveness is absolutely different both from parental severity and inflexibility and conservative attitudes.

• So, the adolescent' s trustful autonomy seems to be a complementary objective assertiveness.

• The protective factors identified in this survey are not specific factors. Consequently we may talk of a generic protective factor to take the best of a balanced family functioning, particularly of the family coping strategies which are aimed at the goals referred to in previous conclusions.

• Thus, the protective factors should be used as auxiliaries in order to help plan programs that are directed to the risk factors or associated with absence of limits.

• Last but not least: it is fundamental to know every detail of the social microenvironment where one intends to act. The differences found amongst the sub-samples of this survey show that context differences, for instance, socioeconomic status,among others, are relevant in the factors' effects differentiation, particularly the ones referring to substances use protection.

Future prevention programs should, therefore, consider all these details, from context to family, demanding a full knowledge of the realities into which they are supposed to efficiently intervene.

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ANNEX - A

DEMOGRAPHIC AND FAMILY DIMENSION SSRPF

Adapted by IREFREA from:

Item-Construct Dictionary for the

STUDENT SURVEY OF RISK AND PROTECTIVE FACTORS AND PREVALENCE OF ALCOHOL, TOBACCO, & OTHER DRUG USE

Prepared by
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This work has been supported by the National Institute on Drug Abuse, Center for Substance Abuse Prevention, U.S. Department of Education, and the Office of Juvenile Justice and Delinquency Prevention.

INSTRUCTIONS

First, read the list of "response choices" one at a time. Second, circle the response that is correct for you. Try to answer all the questions, please. If you have doubts about which is the correct answer, choose the best one for you ("the more correct"). Thank you for your co-operation!

DEMOGRAPHICS

Country: Portugal Spain Italy France

don't write anything here in this box

School

How old are you? 12 13 14 15 16 years old

What grade are you in? 7th 8th 9th 10th

Are you: Female Male

Think of where you live most of the time. Which of the following people live there with you?

- Mother and father
- Only mother
- Only father
- Mother and stepfather
- Father and stepmother
- Father(or stepfather), mother(or stepmother) and brothers(or sisters)
- Others

••• ••• •••

How many brothers and sisters,including stepbrothers and stepsisters, do you have that are older than you?

O 1 2 3 4 5 6 or more

How many brothers or sisters, including stepbrothers and stepsisters, do you have that are younger than you?

O 1 2 3 4 5 6 or more

What is the highest level of schooling your father completed?

- Completed grade school or less
- Some high school
- Completed high school
- Some college
- Completed college
- Graduate or professional school after college
- Don't know
- Does not apply

What is the highest level of schooling your mother completed?

- Completed grade school or less
- Some high school
- Completed high school
- Some college
- Completed college
- Graduate or professional school after college
- Don't know
- Does not apply

How old is your father? (please write your father's age)
How old is your mother? (please write your mother's age)

Where are you living now?

- In the country
- In a city
- In a suburb

My parents ask if I've gotten my homework done.	NO!	no	yes	YES!
My parents want me to call if I'm going to be late getting home.	NO!	no	yes	YES!
Would your parents know if you did not come home on time?	NO!	no	yes	YES!
When I am not at home, one of my parents knows where I am and who I am with.	NO!	no	yes	YES!
The rules in my family are clear.	NO!	no	yes	YES!
My family has clear rules about alcohol and drug use.	NO!	no	yes	YES!
If you drank some beer or wine or liquor (for example, vodka, whisky, or gin) without your parents'permission, would you be caught by your parents?	NO!	no	yes	YES!
If you skipped school would you be caught by your parents	NO!	no	yes	YES!
If you carried a weapon (gun, knife,...) without your parents' permission, would you be caught by your parents?	NO!	no	yes	YES!
People in my family often insult or yell at each other.	NO!	no	yes	YES!
People in my family have serious arguments.	NO!	no	yes	YES!
We argue about the same things in my family over and over.	NO!	no	yes	YES!

Has anyone in your family ever had a severe alcohol or drug problem? No Yes

Have any of your brothers or sisters ever:

drunk beer, wine or hard liquor (for example, vodka, whisky or gin)?	No	Yes	I Don't Have Any Brothers or Sisters
smoked marijuana?	No	Yes	I Don't Have Any Brothers or Sisters
smoked cigarettes?	No	Yes	I Don't Have Any Brothers or Sisters
taken a weapon (gun, knife, ...) to school?	No	Yes	I Don't Have Any Brothers or Sisters
been suspended or expelled from school ?	No	Yes	I Don't Have Any Brothers or Sisters

How wrong do your parents feel it would be for you to:

drink beer, wine or hard liquor (for example,vodka, whisky or gin) regularly?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
smoke cigarettes?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
smoke marijuana?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
steal anything worth more than $5?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
draw graffiti, or write things or draw pictures on buildings or other property (without the owner's permission)?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All
pick a fight with someone?	Very Wrong	Wrong	A Little Bit Wrong	Not Wrong at All

Do you feel very close to your mother?	NO!	no	yes	YES!
Do you enjoy spending time with your mother?	NO!	no	yes	YES!
Do you share your thoughts and feelings with your mother?	NO!	no	yes	YES!
Do you feel very close to your father?	NO!	no	yes	YES!

Do you enjoy spending time with your father?	NO!	no	yes	YES!
Do you share your thoughts and feelings with your father?	NO!	no	yes	YES!
My parents give me lots of chances to do fun things with them.	NO!	no	yes	YES!
My parents ask me what I think before most family decisions affecting me are made.	NO!	no	yes	YES!
If I had a personal problem, I could ask my mom or dad for help.	NO!	no	yes	YES!

My parents notice when I am doing a good job and let me know about it.	Never or Almost Never	Sometimes	Often	All the Time
How often do your parents tell you they're proud of you for something you've done?	Never or Almost Never	Sometimes	Often	All the Time

ANNEX - B

Adapted by IREFREA from:

Item-Construct Dictionary for the

STUDENT SURVEY OF RISK AND PROTECTIVE FACTORS AND PREVALENCE OF ALCOHOL, TOBACCO, & OTHER DRUG USE

Prepared by
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This work has been supported by the National Institute on Drug Abuse, Center for Substance Abuse Prevention, U.S. Department of Education, and the Office of Juvenile Justice and Delinquency Prevention.

DRUG USE OUTCOMES

1. Have you ever smoked cigarettes?
   Never Once or twice Once in a while but not regularly Regularly in the past Regularly now

2. How frequently have you smoked cigarettes during the past 30 days?
   Not at all Less than one cigarette per day One to five cigarettes per day About one-half pack per day
   About one pack per day About one and one-half packs per day Two packs or more per day

3. On how many occasions (if any) have you had alcoholic beverages (beer, wine or hard liquor) to drink in your lifetime - more than just a few sips?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

4. On how many occasions (if any) have you had beer, wine or hard liquor during the past 30 days?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10- I 9 Occasions 20-39 Occasions 40 or More Occasions

5. Think back over the last two weeks. How many times have you had five or more alcoholic drinks in a row?
   None Once Twice 3-5 times 6-9 times I O or more times

6. On how many occasions (if any) have you used marijuana in your lifetime?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

7. On how many occasions (if any) have you used marijuana during the past 30 days?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10- I 9 Occasions 20-39 Occasions 40 or More Occasions

8. On how many occasions (if any) have you used ecstasy, LSD or other psychedelics in your lifetime?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

9. On how many occasions (if any) have you used ecstasy, LSD or other psychedelics during the past 30 days?
   0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10- 19 Occasions 20-39 Occasions 40 or More Occasions

10. On how many occasions (if any) have you used cocaine in your lifetime?
    0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

11. On how many occasions (if any) have you used cocaine during the past 30 days?
    0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10- 19 Occasions 20-39 Occasions 40 or More Occasions

12. On how many occasions (if any) have you sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays, in order to get high in your lifetime?
    0 Occasions I-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

13. On how many occasions (if any) have you sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays, in order to get high during the past 30 days?

    0 Occasions 1-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

14. On how many occasions (if any) have you used derbisol in your lifetime?

    0 Occasions 1-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

15. On how many occasions (if any) have you used derbisol in the past 30 days?

    0 Occasions 1-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

16. On how many occasions (if any) have you used other drugs in your lifetime?

    0 Occasions 1-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

17. On how many occasions (if any) have you used other drugs in the past 30 days?

    0 Occasions 1-2 Occasions 3-5 Occasions 6-9 Occasions 10-19 Occasions 20-39 Occasions 40 or More Occasions

ANNEX - C

CODING PROCEDURES

ABSENCE OF ANSWER: 0

INVALID ANSWER : 9

DEMOGRAPHICS

Country

01	1	Portugal
	2	Spain
	3	Italy
	4	France

School

02	1	
	2	
	...	

Age

03	*(codify with the real age)*

Grade

04	1	7th
	2	8th
	3	9th
	4	10th

Sex

05	1	Female
	2	Male

Live with

06	1	Mother and father
	2	Only mother
	3	Only father
	4	Mother and stepfather
	5	Father and stepmother
	6	Father (or stepfather), mother (or stepmother) and brothers (or sisters)
	7	Others

Older

07	1	none
	2	1
	3	2
	4	3
	5	4
	6	5
	7	6 or more
	8	

Younger

08	1	none
	2	1
	3	2
	4	3
	5	4
	6	5
	7	6 or more

Schooling - father

09	1	completed grade school or less
	2	some high school
	3	completed high school
	4	some college
	5	completed college
	6	professional or graduate after college
	7	don't know
	8	does not apply

Schooling - mother

10	1	completed grade school or less
	2	some high school
	3	completed high school
	4	some college
	5	completed college
	6	professional or graduate after college
	7	don't know
	8	does not apply

Age - father

11	(codify with the real age)

Age - mother

12	(codify with the real age)

Residence

13	1	Country
	2	City
	3	Suburb

homework

14	1	NO!
	2	no
	3	yes
	4	YES!

to call

15	1	NO!
	2	no
	3	yes
	4	YES!

know

16	1	NO!
	2	no
	3	yes
	4	YES!

know where I am

17	1	NO!
	2	no
	3	yes
	4	YES!

rules...clear

18	1	NO!
	2	no
	3	yes
	4	YES!

rules - alcohol/drug use

19	1	NO!
	2	no
	3	yes
	4	YES!

drank

20	1	NO!
	2	no
	3	yes
	4	YES!

skipped school

21	1	NO!
	2	no
	3	yes
	4	YES!

carried a weapon

22	1	NO!
	2	no
	3	yes
	4	YES!

insult or yell

23	1	NO!
	2	no
	3	yes
	4	YES!

serious arguments

24	1	NO!
	2	no
	3	yes
	4	YES!

argue... over and over

25	1	NO!
	2	no
	3	yes
	4	YES!

severe alcohol or drug problem

26	1	No
	2	Yes

<u>Brothers or Sisters</u>

drunk

27	1	No
	2	Yes
	3	I Don't Have...

smoked marijuana

28	1	No
	2	Yes
	3	I Don't Have...

smoked cigarettes

29	1	No
	2	Yes
	3	I Don't Have...

taken a weapon

30	1	No
	2	Yes
	3	I Don't Have...

suspended or expelled from school

31	1	No
	2	Yes
	3	I Don't Have...

How wrong do your parents feel...

drink...

32	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at All

smoke cigarettes

33	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at All

smoke marijuana

34	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at All

steal anything

35	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at All

draw graffiti...

36	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at All

pick a fight

37	1	Very Wrong
	2	Wrong
	3	A Little Bit Wrong
	4	Not Wrong at Al

close...mother

38	1	NO!
	2	no
	3	yes
	4	YES!

spending time...mother

39	1	NO!
	2	no
	3	yes
	4	YES!

share...mother

40	1	NO!
	2	no
	3	yes
	4	YES!

close...father

41	1	NO!
	2	no
	3	yes
	4	YES!

spending time...father

42	1	NO!
	2	no
	3	yes
	4	YES!

share...father

43	1	NO!
	2	no
	3	yes
	4	YES!

chances to do fun things...

44	1	NO!
	2	no
	3	yes
	4	YES!

ask me what I think...

45	1	NO!
	2	no
	3	yes
	4	YES!

ask... help

46	1	NO!
	2	no
	3	yes
	4	YES!

doing a good job

47	1	Never or Almost never
	2	Sometimes
	3	Often
	4	All the Time

they're proud

48	1	Never or Almost never
	2	Sometimes
	3	Often
	4	All the Time

F - COPES

Variables 49 to 77

1 Strongly disagree
2 Moderately disagree
3 Neither agree nor disagree
4 Moderately agree
5 Strongly agree

FACES III

Variables 78 to 97

1 Almost Never
2 Once in a While
3 Sometimes
4 Frequently
5 Almost Always

smoked cigarettes

98	1	Never
	2	Once or twice
	3	Once in a while but not regularly
	4	Regularly in the past
	5	Regularly now

cigarettes... past 30 days

99	1	Not at all
	2	Less than one cigarette per day
	3	One to five cigarettes per day
	4	About one-half pack per day
	5	About one pack per day
	6	About one and one-half packs per *day*
	7	Two packs or more per day

alcoholic beverages

100	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

beer, wine or hard liquor...

101	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...over the last two weeks... alcoholic drinks...

102	1	None
	2	Once
	3	Twice
	4	3-5 times
	5	6-9 times
	6	10 or more times

... marijuana...

103	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...marijuana....past 30 days

104	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

... ecstasy, LSD or other psychedelics

105	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

... ecstasy, LSD or other psychedelics... past 30 days

106	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...cocaine

107	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...cocaine during the past 30 days

108	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...sniffed glue,... aerosol spray can...

109	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions

	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...sniffed glue,... aerosol spray can... past 30 days

110	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

... derbisol

111	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

derbisol in the past 30 days

112	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...other drugs

113	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

...other drugs in the past 30 days

114	1	0 Occasions
	2	1-2 Occasions
	3	3-5 Occasions
	4	6-9Occasions
	5	10-19 Occasions
	6	20-39 Occasions
	7	40 or More Occasions

PLEASE NOTE

• The question **number 8**, instrument **Drug Use Outcomes (use other illicit drugs during lifetime)**, must be codified through the variables nº 105, 107, 109, 111, 113.

• The question **number 9**, instrument **Drug Use Outcomes (use other illicit drugs in the past 30 days)**, must be codified through the variables nº 106, 108, 110, 112, 114.