

Tobacco Use Among Young People in Informal Education Settings: a Survey of Behaviors and Opinions

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OBJECTIVES: To obtain information about the tobacco use of young people in an informal educational setting. To analyze the profile of the young smoker and the associated social and health factors, and to discover the opinion of tobacco held by smokers and non-smokers.

POPULATION AND METHOD: An anonymous, self-administered, personal questionnaire was completed by volunteers aged 14 to 26 years old taking part in the activities of 3 youth centers. The questionnaire included items about the subjects' smoking habits, their awareness of the harmful effects of cigarette smoking and knowledge of tobacco cessation techniques. The survey also covered the health and social profile of young smokers.

RESULTS: A total of 84 completed questionnaires were received (40 males and 44 females). The mean age of the sample was 18.3 years. Of the total, 15.4% had never smoked, 44% described themselves as smokers, and 16.6% as ex-smokers. Of the smokers, 40% smoked up to 10 cigarettes/day and 60% between 11 and 26. The age of initiation or experimentation was 13.1 years, and that of the onset of regular or daily use, 14.6 years. Only 23.5% of the smokers expressed a desire to stop smoking, and 50% had never tried to quit. Tobacco use was associated with weekend alcohol consumption in 59% of the smokers. None of the respondents were aware of the tobacco cessation aids and therapies available.

CONCLUSIONS: According to the data collected by way of these questionnaires, a high percentage of the young people who participate in these leisure activities are smokers. They report a very early age of initiation and an accurate understanding of the serious consequences of tobacco use. Their lack of awareness about the available aids for tobacco cessation is a cause for concern, and the number of smokers who expressed a desire to quit was minimal. A disturbing increase in the association between alcohol and tobacco consumption was observed.

Key words: *Tobacco. Education. Information. Youth.*

¿Qué conocemos y qué actitud se puede tomar acerca del consumo de tabaco en la educación no formal?

OBJETIVOS: Obtener información sobre el consumo de tabaco que realizan los jóvenes en el ámbito de la "educación no formal". Analizar el perfil del joven fumador así como los factores sociosanitarios asociados y conocer la opinión sobre el tabaco que tienen tanto los no fumadores como los fumadores.

POBLACIÓN Y MÉTODOS: Encuesta anónima, autoadministrada, personal y voluntaria ofrecida a los jóvenes de 14 a 26 años asistentes a las actividades de tres Casas de Juventud. La encuesta incluía preguntas sobre características del hábito tabáquico, conocimientos acerca del efecto nocivo del cigarrillo y métodos de deshabitación, así como el perfil sociosanitario del joven fumador.

RESULTADOS: Se cumplimentaron 84 encuestas (40 chicos y 44 chicas). La edad media fue de 18,3 años. El 15,4% de los jóvenes no habían fumado nunca. Se declararon fumadores el 44% y ex fumadores el 16,6%. El 40% de los fumadores consumen hasta 10 cigarrillos/día, y el 60%, entre 11 y 20 cigarrillos/día. La edad de contacto o experimentación fue a los 13,1 años y la del consumo regular o diario a los 14,6 años. Sólo el 23,5% de los fumadores quiere dejarlo y el 50% no lo ha intentado nunca. En el 59% de los fumadores se asocia el consumo de alcohol los fines de semana. Ninguno de ellos conocía los recursos existentes para dejar de fumar.

CONCLUSIONES: Según los datos de la encuesta, hay un alto porcentaje de fumadores entre los jóvenes que acuden a las actividades de tiempo libre, con una edad de inicio muy temprana y un conocimiento exacto de su gravedad. Es preocupante el desconocimiento que existe sobre las posibilidades que se ofrecen para dejar de fumar, y mínimo el número de fumadores que quieren dejarlo. Se observa un ascenso preocupante del consumo conjunto de alcohol y tabaco.

Palabras clave: *Tabaco. Educación. Información. Jóvenes.*

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Introduction

Smoking is the chief cause of avoidable and preventable disease and death in developed countries. It is responsible for over 2 000 000 deaths per year worldwide and over 55 000 per year in Spain (16% of all deaths).^{1,2}

In the developed world, tobacco is frequently the first addictive substance most school children and adolescents come in contact with, and this age group is the target population for tobacco advertising.³ Some 90% of smokers acquired the habit during adolescence.²

The prevalence of smoking in the young population remains high despite the health risks of tobacco use. Since 1975, cigarettes have been the addictive substance most used on a daily basis by secondary school students.⁴⁻⁶ Approximately 3000 adolescents start smoking every day, while 80 000 children in the world are addicted to tobacco, and one third will die prematurely from a smoking-related disease. Tobacco is considered to be a gateway drug, that is, one that can lead to the use of alcohol as well as marihuana and other illegal drugs.³⁻⁶

Most adolescents between 12 and 16 years old consider tobacco to be a drug, and almost half of them (44%) have smoked a cigarette at some time.⁷ Half of the adolescents who have tried tobacco did so between 12 and 14 years, and a third at an earlier age.^{7,8} Between 21% and 27% of the adolescent population smokes regularly, and consumption increases on weekends.^{7,8}

The interest of government agencies on the national⁹ and regional level¹⁰ in the question of smoking is growing every year. This is largely because of the financial burden of smoke-related disease and the harmful effects of second-hand smoke on passive or involuntary smokers. This interest has led the government to implement various measures, such as the prohibition of tobacco sales to minors, restriction of tobacco advertising, inclusion of warnings on cigarette packets, restrictions on the sale of tobacco, regulation of smoking in public spaces and the workplace, and the creation of tobacco cessation units.^{9,10}

Given that the latest social and educational trends underscore the importance of intervening early in the population at risk, the different institutions involved have undertaken studies aimed at understanding tobacco use and finding ways to prevent habits and behaviors that are damaging to health. Almost all of these studies have investigated the home¹¹ or school¹² environment, and none have been undertaken to study young people's smoking habits in the context of informal or leisure-time education, that is, education received by young people in their free time, which is not subject to academic regulation and is aimed at developing and training them in an unstructured, open, and inclusive context with appropriate supervision.¹³

The objective of this study was to obtain information on the smoking habits of young people in an informal educational setting, to analyze the profile of young smokers and the social and health factors associated with tobacco use, and to ascertain the opinions on tobacco use held by both smokers and nonsmokers.

Population and Method

The population under study was a group of young people aged between 14 and 26 who participated in the activities

organized by several municipal youth centers in Zaragoza, Spain. These activities are attended by young people of different ages, ethnic groups, educational levels, and interests. These factors did not, therefore, influence the design and results of the study. It should be noted that this population is eminently urban.

The study was carried out in 3 of the 27 youth centers in Zaragoza. The centers were randomly selected and had similar characteristics with respect to population served and organization. The centers were equidistant from each other, thus eliminating a source of bias. Attendance at these youth centers is about 30 visits per day (total number of young people attending per day).

Data was collected between January and June 2002 in the form of self-administered questionnaires which the young people, both smokers and nonsmokers, voluntarily completed. Later, the educator working in the youth center gave a brief talk explaining the aims of the survey. During this period, a total of 360 different young people attended the centers, and 102 questionnaires were completed (28.3% of the total population who attended). A two-part questionnaire was used. The first section, completed by all respondents, dealt with personal details, smoking status, age of first contact, parents' tobacco use, opinions on the risk factors associated with starting smoking, opinions on legislation restricting smoking, awareness of where smoking is prohibited, understanding of the relationship between smoking and health issues, and agreement or disagreement with various measures implemented to reduce smoking in the Spanish population in general and the population of Aragon in particular. A second section, completed only by smokers, collected information about participants' daily cigarette consumption, their degree of nicotine dependence using the Fagerström test, and other related data. The design followed the recommendations of the Assembly on Tobacco Addiction of the Spanish Society of Pulmonologists and Thoracic Surgeons (SEPAR)¹⁴ and other guidelines resulting from previous studies carried out by the Workgroup on Adolescents to which the authors belong.^{7,12,15}

With respect to smoking status, the young smokers were classified according to the following definitions established by the World Health Organization:¹⁶ young nonsmoker, young daily smoker, young weekly smoker (at least once a week, but not every day), young occasional smoker (less than once a week), young recent ex-smoker (less than 6 months), and young confirmed ex-smoker (more than 6 months).

The questionnaires were completed at the youth center under the supervision of the educator or study leader. The educators were appropriately trained to resolve any doubts that might arise while the questionnaires were being completed. A preliminary trial was carried out in one of the selected centers by the investigator, who remained anonymous. The results were validated and found to be satisfactory. Incomplete or incorrectly filled out questionnaires were eliminated as were those that did not fulfill criteria for inclusion on account of age. Participants were encouraged to be as honest as possible, and the confidentiality of the data was guaranteed.

The statistical study consisted of a descriptive analysis of the sample using the χ^2 test to compare percentages using the SPSS for Windows software (SPSS, Chicago, Illinois, USA). The accepted value for significance was $P < .05$ (95% confidence interval). Quantitative values are expressed as means and were compared using the Student *t* test.

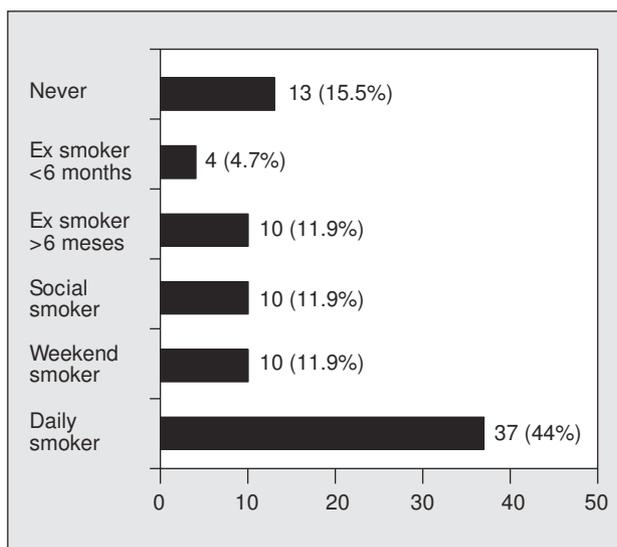


Figure 1. Tobacco consumption in the population studied.

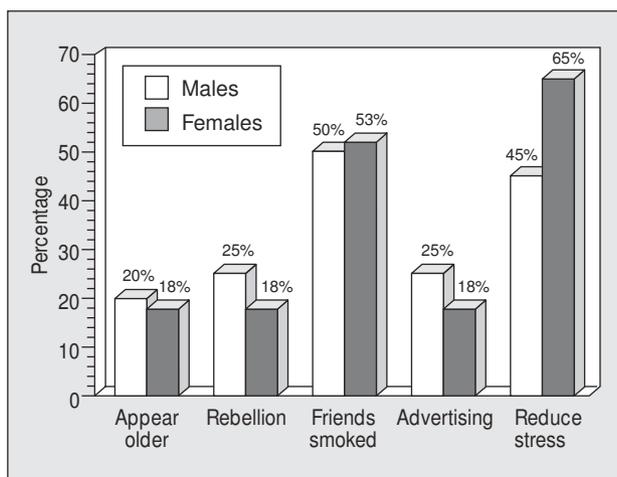


Figure 2. Why did you start smoking?

Results

Of a total of 102 questionnaires completed, only 84 (47.6% males and 52.4% females) fulfilled the inclusion criteria of being completely and correctly filled in. The mean age was 18.3 (range 14-26 years): 19.2 years for males and 17.9 for females (Table 1).

No statistically significant differences were found between the 3 youth centers with respect to the number of questionnaires filled out, percentage of smokers and nonsmokers, age of initiation, or the social and health factors considered in the study.

Of the respondents included in the study, 37 (44%) declared themselves to be smokers; 10 (11.9%), ex-smokers for more than 6 months; and 4 (4.7%), ex-smokers for less than 6 months. Only 13 (15.5%) participants had never tried smoking, 10 (11.9%) smoked at family, social, and other gatherings, and a further 10 (11.9%) only smoked at weekends (Figure 1).

TABLE 1
General Characteristics of the Respondents

Study Variables	Overall	Males	Females
Respondents	102	49	53
Participants	84	40	44
Mean age	18.3	19.2	17.9
Working	24	14	10
Studying	60	26	34

TABLE 2
General Characteristics of the Daily Smokers

Variables	Overall	Males	Females
Daily smokers	37	20	17
Mean age of initiation (range)	13.1 (8-16)	14	12.2
Mean age when regular smoking habit began (range)	14.6 (12-20)	14.8	14.4
Number of cigarettes/day			
0-10	40%	35.7%	44.3%
11-20	60%	64.3%	55.7%
Motivated to stop smoking?			
Yes	23.5%	28.5%	18.5%
Never thought about it	46.5%	35.7%	57.3%
No	30.0%	35.8%	24.2%

With respect to gender, 54% of the smokers were males and 46% were females; no significant differences were found between the sexes. Of the respondents, 69% were students and 31% worked; 38.5% of the students smoked regularly, as compared to 55.6% of the workers.

Of the group of daily smokers, 40% smoked fewer than 10 cigarettes per day, and the rest stated that they smoked between 10 and 20 cigarettes per day. None of the respondents reported smoking more than 20 per day. Only 23.5% of the smokers expressed a desire to quit smoking, 30% did not want to quit, and 46.5% had never considered quitting (Table 2). Some 49.4% of them had tried to quit smoking at some time; only 1 person had successfully remained abstinent for between 6 and 12 months, while the rest relapsed in under 6 months. All of them had attempted to quit independently without any specialized help, and in all cases relapse was attributed to a lack of individual will power to sustain abstinence.

The mean age of initiation or experimentation was 13.1 years (range 8-16 years) and the mean age for onset of regular or daily use was 14.6 years. When asked why they had started smoking, 51.3% stated that they had been initiated in a circle of friends, and 54% said that it was to alleviate feelings of stress or anxiety. Of the smokers, 86.6% received their first cigarette from a friend and 72% smoked for the first time in the street. It is interesting to note that 21.6% believed that the fact that smoking was forbidden had encouraged them to try it, while 18.9% stated that they had started to smoke in order to "look more grown up" (Figure 2).

Among the group of smokers, both parents were smokers in 46% of cases, only the father smoked in 31.8%, only the mother in 5.3%, and in 10.7%, neither

parent smoked. Among the group of nonsmokers, both parents smoked in 20.7% of cases, only the father in 49.7%, only the mother in 10.3%, and in 19.3%, neither parent smoked (Figure 3).

In answer to the questions about concurrent consumption of alcohol and tobacco, 59% of the male and 49.9% of the female smokers said they regularly consumed alcohol at weekends. In response to the same question, 64.2% of male and 47.6% of female nonsmokers reported the same alcohol consumption habits as the group of smokers.

With respect to another important factor, disposable income, only 24.9% of daily smokers (36.3% of males and 11.1% of females) believed that the size of their weekly allowance may have influenced them in starting smoking. In the group of social and weekend smokers, this figure fell to 20% and 8.3% respectively; probably because of the ease of acquiring cigarettes at social events.

Regarding current legislation prohibiting smoking in certain places, 100% of the respondents were aware that smoking is prohibited in medical facilities, schools, and on public transport. Of the males, 63.6% of the smokers and 75% of the nonsmokers believed that smoking was prohibited in enclosed public spaces; among the females, this figure declined to 44% and 47.3% respectively. Among the smokers, 100% of the females and 63.6% of the males believed that smoking was permitted in open public spaces, whereas only a few of the nonsmoking females (5%) and males (15.3%) thought that smoking was prohibited in such spaces. Likewise, 37.5% of male smokers and 50% of female smokers believed that smoking was prohibited in private spaces, as compared to 53.8% and 47.6% of nonsmoking males and females respectively.

The results of the Fagerström test for nicotine dependence completed by the smokers were as follows: 57.6% smoked their first cigarette within 60 minutes of waking; 42.4% smoked their first cigarette more than 1

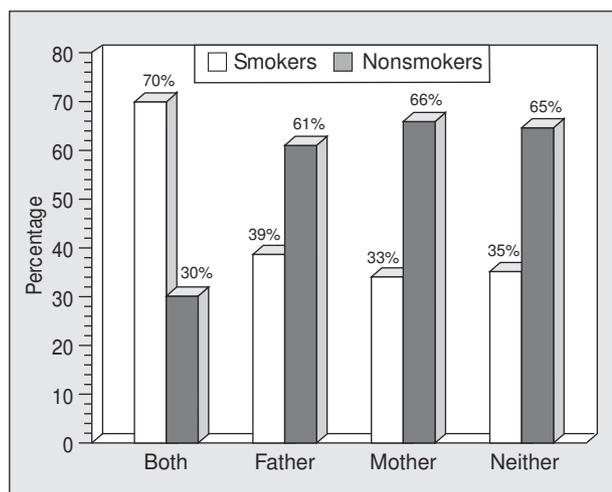


Figure 3. Percentage of parents who smoked.

hour after waking; 70.2% experienced no difficulty abstaining in places where smoking was prohibited; only 15.5% of smokers stated that the first cigarette of the day was the one they would be most unhappy to give up; 40% smoked up to 10 cigarettes per day, and 60% between 11 and 20 cigarettes; 17.9% smoked more during the first hours after waking than during the rest of the day; and 76.2% managed not to smoke when they were ill enough to have to stay in bed most of the day (Table 3).

When asked about the effects of smoking, 100% of the respondents stated that tobacco is damaging to health, and 86.2% said that it was a drug. Among smokers, 61.5% of the males and 70.7% of the females believed that it was addictive, 64.2% of the males and 27.2% of the females believed that it was less dangerous than other health risks, and 64.2% of the males and 36.3% of the females believed that some cigarette brands were less harmful than others. A total of 92.9% of the respondents (92% of males and 93.9%

TABLE 3
Fagerström Test for Nicotine Addiction

	Overall	Males	Females
How long after waking do you smoke your first cigarette?			
0-60 min	57.6%	16 (80%)	6 (35.2%)
>60 min	42.4%	4 (20%)	11 (64.8%)
Do you find it difficult not to smoke in no-smoking zones?			
No	70.2%	14 (70%)	12 (70.5%)
Yes	29.8%	6 (30%)	5 (29.5%)
Which cigarette would you be most unhappy to give up?			
The first one of the day	15.5%	4 (21%)	3 (10%)
How many cigarettes do you smoke/day?			
0-10	40%	7 (35.7%)	8 (44.3%)
11-20	60%	13 (64.3%)	9 (55.7%)
Do you smoke more cigarettes earlier in the day?			
Yes	17.9%	6 (30%)	1 (5.8%)
No	82.1%	14 (70%)	16 (94.2%)
Are you able to stop smoking when you are sick in bed?			
Yes, I stop smoking	76.2%	14 (70%)	14 (82.3%)
No, I don't stop smoking	23.8%	6 (30%)	3 (17.7%)

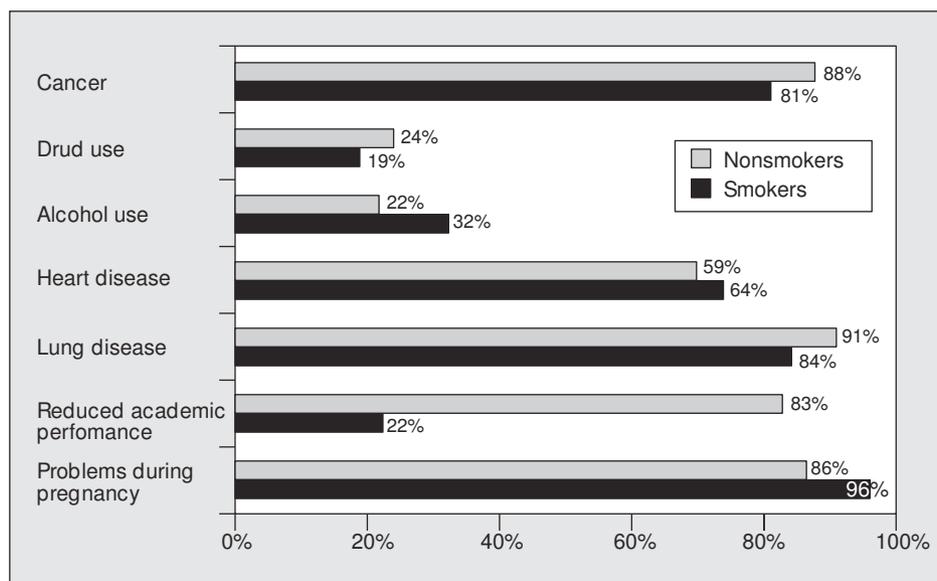


Figure 4. What connection do you think tobacco has with...?

of females) believed that second-hand smoke is harmful to nonsmokers and 81.7% (88.4% of males and 75% of females) stated that giving up cigarettes would increase life expectancy. No significant differences were found between the smokers and nonsmokers with respect to the responses to these questions.

In this study, 85.1% of the respondents associated smoking with lung disease, 91.9% associated it with different kinds of cancer, 90% with problems during pregnancy, 95.4% with childhood illness, and 50% with drug use. No significant differences were found between smokers and nonsmokers with respect to knowledge about smoking-related diseases. Finally, 40.2% and 70.3% of smokers believed that tobacco use was not related to school performance and absenteeism respectively (Figure 4).

Significantly more nonsmokers stated that they were in agreement with the measures being implemented to reduce smoking in the Spanish population in general and in Aragon in particular, as shown in Table 4. This group was in agreement with the various measures implemented because they were convinced of their usefulness.

Discussion

The prevalence of smoking and the attitudes of adolescents and young people towards tobacco use are very important as indicators of future trends, and information on this subject is very useful in the development of future smoking prevention programs.¹⁷ Consequently, self-administered questionnaires designed to study the subject have been used widely because this has been shown to be a highly valid method.¹⁸

The number of adolescent smokers decreased during the 1970s but, unlike what occurred in the adult population in which prevalence continued to decrease, the number of young smokers stabilized during the 1980s and even showed a marked increase during the 1990s.^{12,19,20}

The population surveys that have been carried out regularly in Spain since 1978 include questions that provide data on the prevalence of smoking. A study carried out in 1996 reported that in the adolescent population aged between 11 and 18, 63% to 68% had tried smoking and 21% to 27% were regular smokers.²¹ In the present study, the prevalence of smoking was

TABLE 4
Do You Agree With These Antismoking Measures?

	Male Smoker	Male Nonsmoker	Female Smoker	Female Nonsmoker
Antismoking advertising				
Yes	64.2%	57.1%	81.8%	90.4%
No	35.8%	42.9%	18.2%	9.6%
Increasing the price of tobacco				
Yes	42.8%	64.2%	36.3%	66.6%
No	51.2%	35.8%	63.7%	36.4%
Prohibiting the sale of cigarettes to minors				
Yes	57.1%	63.6%	63.6%	80.9%
No	42.9%	36.4%	36.4%	19.1%
Prohibiting minors from smoking				
Yes	57.1%	64.2%	54.5%	80.9%
No	42.9%	35.8%	45.5%	19.1%

41.6%, while only 15% had never experimented with tobacco.

In the present study, the mean age of initiation or experimentation was 13.1 years, but some authors have reported figures as low as 12.2 years.^{22,23} In those studies, the prevalence of smoking among females was slightly higher than in ours (19.8% vs 18.3%), in which smoking was still more prevalent among males (23.8% vs 20.23%).

The differences between studies²¹⁻²⁶ are a result of the different methodologies used to define the young people who are considered to be smokers and, more directly, of the different age ranges studied, given that prevalence is higher in surveys using an age range with a higher upper boundary, as is the case in the present study. It is important to note that there were no findings from studies carried out in similar informal educational settings that we could compare to our own data. Therefore, we compared ours to findings from studies carried out in the field of formal education.¹²

With respect to the factors that lead to smoking,^{27,28} those relating to the individual must be taken into account (risk-taking behavior, age, personal situation, etc.) as well as the influence of the personal and social environment (including tobacco use among friends, ease of access, and advertising). It appears that having friends who smoke is a more influential risk factor than having parents who smoke. Understanding the role of these risk factors is helpful in achieving a proper focus for prevention programs with respect to both the choice of subject matter and the means used, since advertising can be as helpful in fostering avoidance as it is harmful in promoting smoking.

With respect to attitudes and beliefs associated with smoking, it is interesting to note the percentage of young smokers who associated the habit with concepts such as independence and freedom, and with feeling attractive or controlling stress. These concepts are constantly promoted by the tobacco industry, thereby creating false beliefs about smoking which must be eradicated if we are to dispel any doubts that young people may have about the harmful effects of cigarettes.²⁹

The data obtained on nicotine dependence strongly suggests that the degree of addiction is not high in the population studied, a situation characteristic of the initial stages of tobacco use. This circumstance could favor the success of tobacco cessation attempts because less aggressive interventions are required in such cases.

Young people have no clear idea where smoking is and is not permitted,³⁰ although this knowledge would not change their habits of use since most of them are of the opinion that passive smokers are also exposed to the harmful effects of tobacco smoke. Young people should be more fully informed in order to eradicate false beliefs about the danger of different kinds of cigarettes and of smoking in general, although they are all aware of the harmful effect smoking has on their health and take it seriously.^{31,32}

With respect to motivation to quit, a study carried out among young people by Granda et al²², and one carried out by the authors of this paper³³ found that 42.54% of smokers had reached the stage of contemplating quitting and 10.59% were preparing to do so. In the present study, however, only 23.5% of the respondents said that they wanted to stop smoking and 46.5% had never considered quitting.

The age of first contact with tobacco found in this study is practically the same as that reported in the 5th report of the Spanish Drug Observatory³⁴ (13.1 and 13.2 respectively), but there is a clear difference between that survey and ours in the percentage of daily smokers, percentage of smokers consuming 11-20 cigarettes per day, and intention to quit smoking. The figures in our study for these three parameters were 44%, 60%, and 23.5% respectively, while the same figures in the Spanish Drug Observatory report were 29.2%, 83.1%, and 83.3%. No significant differences were found with respect to other variables, such as gender distribution, motives for tobacco use, and information about the harmful effects of smoking.

Almost all of the respondents were convinced of the harmful effects of tobacco smoke on both active and passive smokers, and of the addictive nature of the substance. It is paradoxical to observe how a generation of young people with an accurate knowledge of the risks of smoking who are preoccupied with "the cult of the body" still fall into the habit. It must be assumed that this is part of the process of their personal development, a process characterized by doubts and uncertainties, which could be redirected by an intervention aimed at fostering healthy habits.

Some of the data taken from the questionnaires completed by the young people give particular cause for concern, in particular the low number of individuals who expressed their intention to quit and the high incidence of failure in previous attempts. Also worrying is their total lack of knowledge about the resources available to help them stop smoking. Stopping smoking is so difficult that only a small percentage of the young people in our study have ever attempted to quit, and all of them failed since they did not take advantage of the indispensable tobacco cessation aids because they were unaware of their existence. Young people are the most vulnerable group, making it a priority to target them in any prevention program, reinforcing positive behavior and modifying negative behavior. It is important to stress that it is useless to implement anti-smoking campaigns or tobacco cessation counseling schemes if such initiatives do not reach the people who really need them.

In conclusion, in this study we have found a high percentage of smokers among young people between the ages of 14 to 26 years old attending informal educational activities. These young people started smoking at an early age and clearly understand the serious consequences of their addiction, but they have no inclination to quit and lack information about the

resources available to aid tobacco cessation.

On the basis of the data gathered in this study, two aspects stand out as requiring further study: the combined weekend use of tobacco and alcohol as a highly addictive, pathological, and difficult-to-treat combination and whether being an occasional smoker represents a transitional stage in the process of developing dependency.

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