Family predictors of parent participation in an adolescent drug abuse prevention program

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Abstract
Low participation rates constitute a serious problem faced by family drug abuse prevention programs. In this study we analyse the factors related to participation in a Life Skills Training program implemented in three schools in Spain. Participants in the study were 485 pupils aged 12 – 14 years and their respective parents. The variables that predicted participation in the program were: number of children and educational level of parents, children's drug use, family conflict, parental rearing style, relationships between parents and children and family communication. The results from Spain are similar to those found in international studies, and indicate that the families most at risk of drug use are those least likely to participate in prevention programs. There is a need for strategies to increase participation in prevention programs of the families most at risk.

Key words: adolescent, drug, family participation, family prevention.

Introduction
Results from several studies show that certain family factors can increase vulnerability to drug use in adolescents [1,2]. Therefore, intervention at the family level [3], in combination with school prevention programs [4], is one of the basic strategies for the prevention of drug use among young people. There is considerable evidence that family-based programs can be effective in reducing drug use, and research providing this evidence has also identified some key elements in prevention programming. However, low participation significantly reduces the effectiveness of such programs [5]. Participation rates tend to be under 20%, or even as low as under 5% [6].

The results of the studies by Spoth & Redmond have helped to identify some of the most important variables related to parents' participation in prevention, such as parents' socio-economic and educational level, sex, family make-up, number of children or parents' use of drug abuse prevention resources in the past [7 – 10].

In other studies, rates of drug use among parents, parents' socio-economic and educational level, loss stressors and strength of attachment between adoles- cents and parents were found to be discriminators of involvement in a family-focused preventive intervention [11 – 13].

Nevertheless, demographic variables and family stress levels have not always emerged as predictors of participation [14]. Some studies have found that certain characteristics related to schools can influence parents' decision to participate in prevention programs. These aspects include parents' beliefs and attitudes in relation to the school, parents' perception about the information they receive from their children, quality of teaching and size of the school [15,16].

The main objective of the present study was to analyse whether family factors and organisational aspects of school are related to parents' participation in a family-based program for the prevention of drug use in adolescents, carried out in the school context. A second goal was to analyse the extent to whichthe factors associated with parents' participation in prevention programs in the international literature (referring mainly to English-speaking countries) are comparable to those found in a different socio-cultural reality, such as that of Spain.

Method
Sample
Three private schools were selected at random (one school per city) from 98 private schools in three cities in northern Spain: Oviedo, Gijón and León. In each school, all children with the age range targeted by the prevention program were selected as participants.

The definitive sample was made up of 485 pupils and their parents: Oviedo (n ¼ 171), Gijón (n ¼ 163) and León (n ¼ 151). The mean age of pupils was 13.2 years (range 12 – 14 years). Of these, 48.3% were boys and 52.7% were girls.

Measures
In order to assess pupils' drug use we employed one of the items used by Spain's National Plan on Drugs in their School Population Drug Surveys [17]: 'In the last
30 days, on how many days have you: (1) smoked tobacco, (2) drunk alcohol, (3) taken tranquillizers,

(4) smoked cannabis, (5) taken cocaine, (6) taken heroin,
(7) taken speed/amphetamines, (8) taken hallucinogenic drugs (9) sniffed glue/solvents, (10) taken designer drugs'.

For assessment of the family variables, we administered five questionnaires with Likert-type four-point response scales. The questionnaires were taken from a Spanish questionnaire [18,19] and from the Core Measures of the Centre for Substance Abuse Prevention (CSAP) [20]. These questionnaires were translated using a process of translation and back-translation. The scales and Cronbach's alpha were as follows:

- Family conflict: three items from the CSAP (a ¼ 0.83) and five items from the Spanish questionnaire (a ¼ 0.77); range: 8 – 32.
- Family management: six items from the CSAP (a ¼ 0.73) and nine items from the Spanish scale (a ¼ 0.54); range: 15 – 60.
- Parental attitudes toward drug use: three items from the CSAP (a ¼ 0.76); range: 3 – 12.
- Family attachment scale: four items from the CSAP (a ¼ 0.74); range: 4 – 16.
- Family communication: seven items from the Spanish scale (a ¼ 0.89); range: 7 – 28.

On the family conflict, family management, family attachment and family communication scales, the higher the score, the higher the vulnerability to drug use (e.g. more family conflict). High scores on the parental attitudes toward drug use scale indicate low vulnerability.

Finally, in order to assess the family socio-demographic variables and various aspects related to the internal func- tioning of the school, we used the 10-item questionnaire shown in Table 1.

Table 1. *Survey for parents on aspects related to attendance*

1. How many children do you have?
2. From an economic point of view, how would you describe your family's class or level?
   (a) Low (b) Lower-middle (c) Middle (d) Upper-Middle (e) Upper
3. Parents' educational level.
   (a) No education (b) Primary (c) Secondary (d) Higher
4. Over the last 12 months, how many times have you been required by the school to carry out some activity or receive information at a meeting?
5. How many school meetings do you normally attend?
   (a) None (b) Not many (c) More or less half (d) Practically all (e) All
6. Normally, how relevant do you find the topic of the meetings to which you are invited?
   (a) Not at all relevant (b) Not very relevant (c) Of some relevance (d) Reasonably relevant (e) Extremely relevant
7. In general, how would you rate the meetings you attend?
   (a) Not at all useful (b) Not very useful (c) Of some use (d) Reasonably useful (e) Extremely useful
8. In general, as regards activities and information, what is your opinion of the way the school is run?
   (a) Not at all effectively (b) Not very effectively (c) Satisfactorily (d) Pretty effectively (e) Totally effectively
9. Have you had previous experience of prevention programs?
   (a) Yes (b) No
10. If you answered 'yes' to Question 9, how relevant or useful did you find those prevention programs?
    (a) Not at all relevant or useful (b) Not very (c) Of some relevance or use (d) Reasonably (e) Extremely

Procedure

First, parents were informed about the program in a letter sent out by the school. Next, pupils were administered, anonymously and during school time, the questionnaires on drug-use and family variables. We then applied the Spanish version of the family component of Botvin's 'Life Skills Training' program [21]. This program consists of five 90-minute sessions, which take place weekly.

Once the program application was completed, the school gave a 'Survey on Aspects Related to Attendance' to pupils to take home to their parents. Response rate was 79%. No reminder was sent.

Analyses

We carried out analyses of frequencies, analyses of variance and Pearson correlations on the relationship between the study variables. The statistical package used was SPSS 11.00.

Results

Participation rates

A total of 67.7% of parents failed to attend any of the program sessions, with 2.5% of parents attending three sessions, 2.8% two sessions, 3.1% four sessions, 4.9% all the sessions (including the presentation session), 6.1% five sessions and 12.9% just one session.

Relationship between predictor variables and participation in the prevention program

Tables 2 and 3 show the relationship between the predictor variables and attendance on the program. The drug-use and family variables are strongly related to attendance. Only the parents' attitudes towards drugs subscale failed to show any relationship to attendance.

Relationship between items of the survey for parents and participation in the prevention program

There are significant correlations between attendance on the prevention program and items: number of children, educational level of parents, number of sessions attended, perceived relevance of these sessions, previous experience of prevention programs and perceived relevance of this previous experience. Parents with the best attendance records on the prevention program had more children and higher educational level, went to more school meetings and found them more useful, and had made satisfactory use of preventive resources in the past (Table 4).

Table 2. *Predictive value of adolescents' drug-use variables and family variables on participation in the prevention program*

	Presentation session		First session		Total number of sessions	
	F	Sig.	*F*	Sig.	*F*	Sig.
Family conflict	7.254	0.007	1.795	0.181	4.876	0.028
Family management	10.903	0.000	7.310	0.007	8.404	0.004
Parents' attitudes	2.628	0.106	2.726	0.099	2.909	0.089
Family attachment	12.222	0.001	13.133	0.000	19.889	0.000
Family communication	14.027	0.000	5.588	0.019	8.690	0.003
Overall family rating	13.172	0.000	7.552	0.006	12.871	0.000
Drug use	4.711	0.030	3.613	0.058	5.510	0.019

Table 3. *Relations between predictor variables and participation in the prevention program*

	Presentation session		First session		All sessions	
Mean	Yes	No	Yes	No	Yes	No
Family conflict	15.3	16.2	15.2	16.03	15.1	15.9
Family management	26.5	28.09	26.2	27.9	27.2	27.6
Parents' attitudes	11.6	11.4	11.6	11.4	11.6	11.5
Family attachment	6.6	7.4	6.2	7.3	5.8	7.2
Family communication	11.4	12.6	11.4	12.4	11.7	12.3
Drug use	10.3	10.6	10.2	10.5	10.2	10.5

Table 4. *Correlations between parents' survey items and participation in the prevention program*

Program attendance

Items	r	Sig.
1. Number of children	0.115*	0.024
2. Socio-economic level	0.085	0.094
3. Parents' educational level	0.104*	0.042
4. Time required by the school for activities and meetings	0.089	0.082
5. Attendance at school meetings in general	0.444**	0.000
6. Relevance of the issues discussed at the meetings to which you are invited	0.138***	0.007
7. General rating of the meetings you attend	0.075	0.143
8. Opinion of the way the school is run as regards activities and information	0.045	0.373
9. Previous experience of prevention programs	0.185**	0.000
10. Relevance or usefulness of those prevention programs	0.198**	0.000

*$p \leq 0.05$; **$p \leq 0.001$; ***$p \leq 0.01$.

Discussion

Participation rate of parents in the family drug abuse prevention program was low, with less than 5% attending all the sessions. These data coincide with the results of previous studies, in which there is persistently very low participation in this type of program [6]. It may be that parents fail to perceive the risk of their children taking drugs, or that they consider themselves qualified for preventing this problem.

Parents who attended the program had a profile of low risk: low family conflict, appropriate rearing style, negative attitudes toward drug use, positive bonds between parents and children, good family commu- nication and low drug use in their children; those parents most at risk for drug abuse, on the other hand, failed to attend. In fact, the main family risk factors associated with drug use in adolescents are the same as those related to parents' lack of participation in preventive activities. These findings in Spain are the same as those of studies from other countries [6,7]. Nevertheless, it would be appropriate to replicate this type of study in Spain in order to confirm the findings. In conclusion, family-based programs have been demonstrated to be effective in preventing initiation or escalation of drug use in the early and later adolescent years. Nevertheless, family recruitment— especially in the case of hard-to-reach populations— and the factors influencing retention in interventions need to be examined in depth [22]. Furthermore, the attendance element needs to be monitored and accounted for in analyses of program outcome.

Thus, it is necessary to carry out research on strategies for increasing the participation of families at risk. Selective intervention with risk groups, activities that do not require physical attendance, increasing parents' awareness of their children's susceptibility to drug abuse [8] or the use of incentives [23] may constitute effective alternatives for increasing the participation of high-risk families in prevention programs.

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