

## Research Digest

# **Risk and Protection Factors for Substance Use Among Young People**

## **A Comparative Study of Early School-Leavers and School-Attending Students**

*Trutz Haase and Jonathan Pratschke*

Summary of a report commissioned by the National Advisory Committee on Drugs

### **Introduction**

This comparative study of early school-leavers and school-attending students looking at the risk and protection factors for substance use was undertaken in line with Action 98 of the National Drugs Strategy 2001–2008, which required the National Advisory Committee on Drugs (NACD) to carry out research on ‘at risk groups’ including early school-leavers<sup>1</sup>. It presents the results of a study of substance use among young people in Ireland based on information collected in 2008 during face-to-face interviews with 991 people aged between 15 and 18. The target population comprised school-attending students and young people who, having left school, were attending either a Youthreach centre or FÁS Community Training Centre. This latter population is described in this study as ‘early school-leavers’ and represents approximately 12% of the full annual cohort of early school-leavers.

### **Background**

This is one of the largest studies ever undertaken on substance use among young people in Ireland, and differs from other studies in two important ways. First, whereas previous studies on substance use in this section of the population focused almost exclusively on young people attending school, this study aims specifically to explore the factors associated with substance use among those who left school early. Secondly, the study aims to identify the risk and protective factors that influence young people’s decisions regarding substance use. The study thus emphasises the underlying conditions for and dynamics of substance use with a view to identifying factors that could be addressed through appropriate policies. In pursuing these two objectives, considerable emphasis is placed on comparing the respective risk and protective factors across the two groups: those who have left school early and are now either attending a Youthreach centre for education or FÁS Community Training Centre, and those who are still attending school.

### Conceptualising substance use

Substance use is measured in this study with respect to the consumption of 15 specified substances across three time periods. The substances range from tobacco and alcohol to cocaine and heroin, and all the most commonly used drugs – both legal and illegal – are included. Substance use is recorded for the subject's lifetime, the past year, and the past month. As our main concern is not to measure how many people use each specific substance, but rather to investigate the factors which make different kinds of use more or less likely, it is necessary to group the 15 substances into four broad classes: cigarettes; alcohol and legal party pills; cannabis, and other drugs. The study considers three time periods and analyses data for school-attending students and early school-leavers separately, generating a compact set of 24 models. Considerable effort was taken to identify risk and protective factors that consistently influence substance use among young people, with a view to developing robust inferences regarding the attributes, characteristics, contexts and relationships which impact upon the different types of substance use in the two different samples.

### The prevalence of substance use among young people

The overall level of substance use among young people revealed by this study is far from surprising and confirms the findings of previous drug prevalence studies.

More than four-fifths of early school-leavers (81.6%) have smoked during their lifetime; nearly three quarters (73.7%) during the past year, and more than two-thirds (68.9%) during the past month.

Smoking among the control group of students attending schools that service the same catchment areas as those in the Youthreach and Community Training Centres is significantly lower: just over half (53.3%) have smoked in their lifetime, 38.3% during the past year, and just over one-quarter (27.1%) in the past month. These figures are obtained after adjusting the prevalence estimates for the school sample to match the gender and age characteristics of the early school-leavers and indicate a considerably higher level of smoking among early school-leavers than their school-attending peers.

Alcohol consumption among young people in Ireland is even more prevalent than smoking. Nine out of ten (89.8%) early school-leavers have drunk alcohol at least once; nearly the same proportion (84.3%) has done so in the past year, and no less than two-thirds (65.6%) in the past month. Alcohol consumption among students attending school is somewhat lower, at 86.7% for lifetime, 78.1% for the past year and 56.4% for the past month.

More than half of all early school-leavers (57%) have used cannabis at least once. This drops to 43% over the past year and one-third (33.6%) within the past month. The use of cannabis among school-attending students is much lower, at 24.2% for lifetime, 14.5% for the past year and 7.6% for the past month.

Finally, a considerable proportion of early school-leavers and school-attending students have used other drugs at some point. Two-fifths (40.9%) of early school-leavers have tried at least one of these substances; one-quarter (25.9%) have used one over the past year and more than one in ten (11.5%) have done so over the past month.

These levels differ greatly from those observed among school attending students, where the level of drug use – excluding tobacco, alcohol and cannabis – is only a fraction of that observed among early school-leavers. About one in 10 school-attending students (11.1%) have used other drugs at least once, 6.1% have done so over the past year and 0.8% in the past month.

Overall, the prevalence figures provided by this study for school-attending students are remarkably close to those reported for Irish school-attending students and to the average levels reported for students in the 34 countries that participated in the 2007 European School Survey Project on Alcohol and Other Drugs (ESPAD, Hibell et al., 2009). However, the higher levels of substance use among early school-leavers in this study draw attention to the need to include this group in prevalence studies aimed at young people.

### **Risk and protective factors in substance use**

Although the differences in rates of substance use between early school-leavers and school-attending students are of obvious interest and concern, the main focus of this study is on the risk and protective factors that affect young people's substance-use behaviour. To this end, the study explores some seventy potential factors, which can be grouped into five broad domains: (i) personal characteristics and attitudes of the young person, (ii) the parental and home environment, (iii) factors relating to the educational centre or school, (iv) the use of substances within the peer group, and (v) characteristics of the neighbourhood in which the young person resides. Of these seventy potential factors, exactly half were found to have a statistically significant and, in certain cases, substantively profound effect on substance use. The most important findings with regard to the risk and protective factors are as follows:

#### ***Factors related to the young person***

Age has generally only a minor influence on substance use. The only exception is observed for alcohol consumption, which increases with age, particularly across the legal threshold of 18. In line with other studies, the study found no statistically significant effects with regard to gender.

- Ethnicity influences alcohol consumption and the use of cannabis among early school-leavers, but has no effect on smoking or other drugs, nor does it affect substance use in any way among school-attending students. Among early school-leavers, Travellers and non-white ethnic minorities are both significantly less likely to consume alcohol or cannabis. However, it should be noted, particularly with regard to Travellers, that this could be due to self-selection bias, as only a small minority of Travellers re-enter education by participating in Youthreach or FÁS Community Training Centres.
- Low self-concept, or self-esteem, in a young person contributes significantly to his/her likelihood to smoke cigarettes, among early school-leavers and school-attending students alike.
- Aggressive 'acting-out' behaviour is an important indicator of a greater propensity to use substances, particularly alcohol, cannabis and other drugs. This applies equally to early school-leavers and school-attending students.

- There are strong interactions between the use of different substances: having tried cigarettes is a strong predictor of drinking alcohol and using cannabis; having drunk alcohol at least once predicts having smoked cigarettes; having used cannabis has a strong effect on the likelihood of using other drugs, and having dabbled in drugs has a strong effect on the use of cannabis among students at school. All of these effects, with the exclusion of the last, apply equally among early school-leavers and school-attending students.

### ***Factors related to the young person's parents and home***

- Parental involvement and concern constitute protective factors of the first order, although these influences appear to affect different substance classes in each of the two groups: for school-attending students, parental concern reduces the likelihood of drinking alcohol and parental involvement reduces the risk of using drugs other than cannabis; for early school-leavers, parental concern reduces the likelihood of drinking alcohol and using cannabis. By contrast, parenting appears to have little effect on smoking.
- Substance use by either parents or siblings has quite specific effects, increasing the risk for the young person of using the same substance. Smoking by a family member, for example, even controlling for a range of other influences, represents a significant additional risk of smoking for the young person. The same applies for drinking alcohol, and the use of cannabis and other drugs. The effects are particularly strong where students are still attending school but slightly weaker among those who left school early.

### ***Factors related to the centre or school***

- Factors relating to the centre or school can be measured at the individual level (what we will refer to as “Level 1”, following the terminology of multi-level modelling), or at the level of the educational establishment (Level 2).
- Some of the most significant protective factors found in this study relate to the young person's overall school experience. If a school student feels that he or she has a positive relationship with supportive teachers or has a positive school experience, this has a huge effect in terms of reducing the risk of drinking alcohol and using cannabis or other drugs. However, it has no effect on the likelihood of smoking cigarettes, nor can any of these effects be detected with regard to early school-leavers.
- Two considerations follow from this observation. First, the relationship between these aspects of the school experience, on the one hand, and substance use, on the other, is likely to involve reciprocal effects. Students who have a satisfying and enjoyable school experience are less likely to use substances, and those who do not use substances are more likely to have a good relationship with teachers and school. Secondly, this effect is remarkable by its absence among early school-leavers, suggesting that those who have left school early are relatively homogeneous in relation to this characteristic. These are, as other studies have shown, young people who have not had a positive experience of school or good relationships with teachers in general (see, for example, Smyth, 1999; Byrne and Smyth, 2010). This underlines the close, internal relationship that exists

between early school-leaving and substance use, which forms the backdrop to this study.

- With regard to early school-leavers, small but significant effects may be identified in relation to the educational establishment, including whether it provides drug awareness and information sessions for all staff, which has a small but significant protective effect, reducing the likelihood of using cannabis and other drugs. There is also evidence that unmet counselling needs experienced by those attending centres for education or training are associated with higher alcohol consumption. Within the school sector, small but significant effects were detected with regard to school policies. It is quite striking to find that the number of substance-use classes or information sessions for parents is associated with a lower risk of cigarette smoking among school-attending students.

### *Factors linked to the young person's peer group*

- The peer group consistently and repeatedly represents a key risk factor throughout all of the models. It is therefore important to point out that, in this study, peers are only assessed in terms of their substance-use behaviour. By definition, this implies that peers can only be conceived to have negative influences. Since the evaluation of positive peer effects, expressed via participation in sports, music, drama and similar activities, is not studied, we must merely restate that relationships with peers can simultaneously encode a range of risk and protective factors.
- Keeping this in mind, it is particularly interesting to note the specificity of the peer-related effects identified by the statistical models. If most of the interviewee's friends smoke, then there is a greater likelihood that he or she also smokes. The same applies to drinking alcohol and using cannabis and other drugs. In each case, the young person is more inclined to use the specific substance in question, even after controlling for a range of other influences. Of course, it is equally possible that young people choose their friends, at least in part, on the basis of prior substance-use behaviour or factors that are causally related to this. We would, in this case, be faced once again with a situation of potential reciprocal causality; either way, we can learn a lot by looking at young people's friendship networks. Moreover, these strong statistical relationships hold, in an almost identical manner, for those still at school and those who left school early.
- When we turn to the question of access to substances – itself quite often linked to the nature of the peer group, one might argue – a more differentiated picture emerges. Smoking is not strongly affected by ease of access, confirming that access is probably quite straightforward in this case. The same applies for alcohol among early school-leavers. Interestingly, however, ease of access to alcohol constitutes a significant additional risk factor for those still attending school. Ease of access becomes considerably more important in the context of using cannabis and other drugs. In these cases, substance use is significantly greater where access is easier, underlining a self-evident, albeit important, policy-related conclusion that holds for both school-attending students and early school-leavers.

## *Factors related to the neighbourhood*

- The influence of factors related to the neighbourhood is small when compared with individual and particularly peer effects, although, in practice, these may not always be so easy to separate. If a school student knows, for example, where to go for help with a drug-use problem in their area, the odds of that student using cannabis are lower, while the degree of neighbourhood disapproval of young people using substances reduces the risk of smoking among early school-leavers. Finally, living in a Drugs Task Force area has a measurable, statistically significant effect, associated with lower levels of drug use among early school-leavers. This is an important finding, not so much in terms of the size of the effect, but simply in terms of a statistically significant influence being identified at this level.

## **Differences between early school-leavers and school-attending students**

When comparing early school-leavers with those still attending school, we find remarkable similarities not only in the risk and protective factors which affect their substance use, but also in the relative importance of the individual factors. This clearly points to an important conclusion: the higher levels of substance use that are observed among early school-leavers are not explained by the nature of their current educational context, but are primarily the result of the factors underlying early school-leaving.

Based on the findings of other studies (Smyth, 1999; Byrne and Smith, 2010), an important factor in this process appears to be the absence of a positive school experience and positive relationships with teachers among those who leave school early. As the school data reveal, these experiences dramatically reduce the risk of substance use. In a similar fashion, one could plausibly argue that the same experience lies at the heart of the decision to leave school prematurely. We do not know to what extent substance use itself contributes to an unsatisfactory school experience, but this is at least a possibility. This suggests that the close relationship between early school-leaving and substance use is not due merely to the causal effect of one of these variables on the other, but most likely involves reciprocal causality and indirect influences by a range of background variables. Furthermore, the higher levels of substance use observed among early school-leavers are likely to produce stronger peer effects than are encountered among school-attending students, and the models provide evidence of a more extensive and collective form of consumption than is found among school-attending students.

With small and often interesting differences, it is clear that the same broad set of issues must be addressed in both schools and centres for education and training. We will now return to these issues, to highlight what we feel are the most important policy-related findings of the study.

## **Conclusions and Recommendations**

This study identifies a limited number of highly significant risk and protective factors that can increase or decrease the risk of using substances among 15 to 18-year-olds in Ireland. When attention is focused on those factors that are amenable to change, the most important conclusion is that both the family (the young person's parents above all) and the educational institution can have a major impact on this decision.

The involvement of parents with their children is a major protective factor, reducing the risk of substance use, just as parental concern about their children's behaviour and future prospects insulates them, at least to a certain extent, from this risk. This is a most profound finding and should be communicated to parents and those who provide support to parents and families in Ireland.

Equally important is the actual behaviour of parents and other members of the immediate family, including brothers and sisters. If other family members use specific substances, this poses a significant risk that the young person will follow in their footsteps. Conversely, a family environment in which substances are not present and are not used on a regular basis can reduce this risk by limiting early experimentation and providing positive role models. It is important to remember, in this context, that behaviours that are socially acceptable and quite unproblematic for adults can pose much greater problems for young people during specific stages in their development. Awareness of this mechanism, and a more self-reflexive approach to role modelling within the family could therefore provide parents with the tools to cushion their children against the risks of early substance use.

At the school level, by far the most important factor is for the young person to feel supported by their teachers and to have a positive experience of school and learning. These are the strongest potential effects detected in this study and cannot be emphasised enough. At the same time, negative experiences are a crucial factor in the decision of at least some students to leave school prematurely, and, as we have seen, substance use is considerably higher among early school-leavers than among school-attending students. Therefore, ensuring that young people have a positive experience of school, and feel supported and capable of studying, will not only keep them longer at school, but also serve as a decisive protective factor against substance use. This logical argument also indicates that the implementation of a range of policies with the potential to reduce early school-leaving is itself one of the most effective intervention strategies to reduce substance use among young people.

The study confirms that the peer group generates very strong influences on young people's behaviour in relation to substances. This relationship is complex, involving self-selection as well as reciprocal effects, as the choice of friends and the collective consumption of substances are not independent processes, but are intertwined in important ways. All the statistical models confirm that peers can have an extraordinary influence on the behaviour of young people, and point to quite complex patterns of collective, consecutive and combined consumption of substances that involve the peer group. Parental involvement and concern are key factors in relation to substance use partly because of the way in which they relate to young people's choice of friends, their exposure to negative and positive influences within the peer group and the young person's behaviour when they are together with their friends.

## Risk and Protection Factors for Substance Use Among Young People

A key characteristic of substance use among young people involves either progression from one substance to another, the combined use of more than one substance, or their consumption within a context characterised by polydrug use. The most obvious example of this is young people drinking and smoking in a group setting, but other contexts involving combined use of different substances are also evident (clubs, discos, parties, etc). The pattern of associations that can be observed between different types of substance use suggests that these situations are very important. For example, we find regular associations between drinking alcohol and smoking cigarettes, or smoking cigarettes and having friends who use other drugs, or using cannabis and having friends who use other drugs. In some cases, having used one substance (e.g. cigarettes) is linked with experimentation with another (e.g. cannabis), rather than its more regular use.

With regard to school-attending students, this study confirms what existing research reveals about levels of substance use among young people in Ireland. Its findings are in line with the averages reported for the 34 countries that participated in the 2007 European School Survey Project on Alcohol and Other Drugs (ESPAD, Hibell et al., 2009). However, the significantly higher rate of substance use found among early school-leavers also suggests that the methodology underlying these studies may need to be revised to include those not attending school.

One of the positive conclusions of the study is that substance-use behaviour can be linked quite clearly and unequivocally to a set of underlying risk and protective factors, many of which can be influenced by appropriate policies. As far as policy-makers are concerned, equal weight should be accorded to parents (and the home environment), on the one hand, and ensuring that all students have the possibility to experience positive and satisfying relationships and challenges at school.

Tackling substance use among early school-leavers is not qualitatively different to tackling this phenomenon in school-attending students and many of the risk and protective factors are similar across these two groups. However, specific risk factors form part of the early school-leavers' world, and these should not be confused with the nature of their current educational setting. Neutralising these risks and activating key protective factors raises fundamental questions about the social processes that shaped their earlier school experiences and led them towards the decision to leave school.

### Note

1. The survey was planned by the NACD on the basis of an initial literature review undertaken by Dr. Justine Horgan, NACD. The overall design was followed by careful development of the survey instruments and sampling methodology. An initial analysis of the survey data was commissioned from Dr. Peter Mühlau of Trinity College Dublin. Trutz Haase and Dr Jonathan Pratschke were commissioned in September 2009 to undertake further analysis of the data and to present a full report on the findings to the NACD. What follows is the Executive Summary from that report, reproduced with kind permission of the NACD. The full report is available at [www.nacd.ie](http://www.nacd.ie).



## References

- Byrne, D. & Smyth, E. (2010) *No Way Back? The Dynamics of Early School Leaving*. Dublin: ESRI.
- Central Statistics Office (2008) *Quarterly National Household Survey (QNHS) – Educational Attainment, Quarter 2 2002 to Quarter 2 2008*. Dublin CSO.
- Hibell, B., Guttormsson, U., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A. & Kraus, L. (2009) *The 2007 ESPAD Report: Substance Use Among Students in 35 European Countries*. Stockholm: Swedish Council for Information on Alcohol and Other Drugs.
- Smyth, E. (1999) *Do Schools Differ? Academic and Personal Development Among Pupils in the Second-level Sector*. Dublin: Oak Tree Press.

## National Advisory Committee on Drugs

The goal of the NACD is to advise the Government on problem drug use in Ireland in relation to prevalence, prevention consequences and treatment based on our analysis and interpretation of research findings. The principal functions of the NACD are to:

- Review current information and research capacity
- Identify gaps in our knowledge and understanding
- Ensure better use of information available from all sectors
- Provide analysis and interpretation of research findings
- Respond to Government requests to research issues of relevance to policy
- Work with the Drug Misuse Research Division of the Health Research Board and assist with the establishment of a National Documentation Centre
- Implement the three year programme of research and evaluation, liaising with all the relevant agencies and avoiding duplication of work; co-ordinate and advise on appropriate research projects; commission research projects
- Promote and encourage debate through the dissemination of research findings

## Contact

National Advisory Committee on Drugs

Hawkins House

Hawkins Street

Dublin 2

Co Dublin,

Ireland.

Telephone: +353 1 6354283

Email: [nacd@nacd.ie](mailto:nacd@nacd.ie)

Web: [www.nacd.ie](http://www.nacd.ie)