Drug use amongst young people attending emotional and behavioural difficulty units during adolescence: A longitudinal analysis

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ABSTRACT

This paper reports on the findings from a longitudinal survey of the drug use behaviours of young people who were attending Emotional and Behavioural Difficulty (EBD) units from the age of 11-16 years. It forms part of the Belfast Youth Development Study, a longitudinal study of adolescent drug use. This paper presents a follow-up report to a cross-sectional paper that reported on drug use behaviours of a sample of young people attending EBD units when aged 12/13 years at school year 9 (McCrystal et al 2005a). In the present paper reported drug use and behaviours associated with increased risk of its use between the ages of 11-16 years were examined. The findings show that those attending EBD Units consistently reported higher levels of licit and illicit drug use throughout adolescence. Compared with young people in mainstream school, higher levels of behaviours associated with drug use including antisocial behaviour, disaffection with school, and poor communication with their parents/guardians were noted. These findings have implications for the development and timing of targeted prevention initiatives for young people attending EBD units at all stages of adolescent development.

Keywords: Drug use; longitudinal analysis; EBD units

INTRODUCTION

The direct and indirect effects of alcohol and other drug use on children and young people leads to many adverse health and safety risks for them, their family and the community in which they live (Harolyn et al, 1998). Understanding risk and protective factors that may affect the development of substance abuse is a first step to ameliorating the problem of drug use in adolescence. Some specific factors associated with an increased likelihood to illicit drug use include antisocial behaviour (Miller and Plant, 2002; Rutter et al, 1998); disaffection with school (Goulden and Sondhi, 2001); and poor communication with parents/guardians. Stattin and Kerr (2000) reported child disclosure as the strongest predictor of norm breaking in young people. Others (e.g. Needle et al 1990) claim that family disruption 'greatly increases adolescents overall drug involvement' (p.107). Hawkins and his colleagues presented a more thorough insight to these factors (Hawkins et al, 2002; 1992), which has been an aim of much empirical research on drug use behaviours of school aged young people (e.g. Beinart et al, 2002; EMCDDA, 2003; Miller and Plant 2001). Whilst a plethora of research informs our understanding of risk and protective factors for young people of school age generally, much of the evidence upon which existing information and understanding of adolescent drug use is based was derived from surveys of young people attending mainstream school. These surveys generally do not include young people with a statement of special education needs who were attending special education provision (Snow et al, 2002). This may question the value of school based surveys to our understanding of drug use behaviours of all school aged young people, particularly those attending special education provision such as EBD units. Among the reasons given for this differential knowledge base included the difficulty of accessing young people attending EBD units compared with their contemporaries in

mainstream school. For this reason research addressing young people with special education needs usually involves small samples which has the potential to affect the generalisability of the findings to other groups of young people with similar needs in other locations (Dockreall, et al 2002).

Existing studies have highlighted young people with emotional and behavioural difficulties as a group at increased risk to substance abuse (McCrystal et al, 2005), particularly alcohol (McCusker et al, 1993) although the strength of such links have been questioned (Clarke and Wilson, 1999). The limited existing empirical base of the drug use behaviours of those attending EBD Units makes it difficult to produce definitive conclusions on this issue. The existing limited empirical base has relied on cross sectional studies which have involved single, one-off questionnaire surveys with young people (e.g. McCrystal et al, 2005; Millberger et al, 1997) providing a 'snapshot' relevant to the time of the research. The existing evidence from these studies remains limited, with even less evidence of these young people being studied over time.

One of the outcomes of this is that we know virtually nothing about the extent to which healthy lifestyle messages reach and/or are understood by young people in special education provision (Snow et al, 2001). As a group, these young people face at least the same overall risk for substance misuse related harm as their mainstream counterparts (Morgan, 1994). They are considered to be at a high risk of using illicit drugs because of exclusion from mainstream school and identified behavioural problems and /or conduct disorders (Whitmore et al 1997; Phil and Peterson 1991; Davis and Florian 2004). The implications of such information have taken on heightened value as the numbers of

children and young people with emotional and behavioural difficulties have been increasing in recent years (Daniels et al, 1999).

Support for research with high risk groups of young people including those with emotional and behavioural difficulties has however existed for some time. For example, Moore and Polsgrove (1991) argued that because of the cognitive, emotional, communicative and behavioural challenges often faced by young people in special education provision, they had fewer opportunities to engage in experiences likely to develop resilience. Jackson (1987) claimed that there may be a perception by policy makers, teachers and/or parents that alcohol and other drug education is of a lower priority for young people with emotional and behavioural difficulties compared with young people in mainstream education. The absence of adequate data on their behaviours in these areas has implications for both classroom-based education, and for approaches to intervention once problematic drug use has been identified. One of the reasons cited for excluding young people attending EBD Units from traditional drug prevention initiatives is because they have well-identified and often long-standing problems, usually in behavioural, emotional, and learning domains (Thompson et al 1996). However Millberger and his colleagues (1997) argue that the higher levels of substance abuse reported by young people with special education needs highlight them as a specific group to be targeted for prevention programmes. The value attached to the findings from school based surveys to policy-makers (Hallfors et al, 2000) makes participation of young people from the full range of intellectual and behavioural abilities of great importance. Accessing potentially hard to reach or vulnerable groups, particularly on a longitudinal basis has the potential to be of even greater importance for policy makers and practitioners (ONDCP, 2004).

The Study

This paper presents follow-up data to a cross-sectional study of drug use behaviours of young people attending EBD Units (McCrystal et al, 2005). It aims to extend the examination of drug use behaviours among those attending EBD units beyond a cross-sectional approach to a longitudinal analysis by studying their drug use behaviours from the age of 11-16 years. A range of measures were developed to obtain data on a range of risk and protective factors including drug use, antisocial behaviour, communication with parents, commitment and motivation to do well at school, aspects of the neighbourhood in which they live and their leisure activities. The relative value of responses from those attending EBD Units are compared with the findings from the mainstream school survey of the Belfast Youth Development Study (BYDS) that involved an annual survey of 43 schools, to provide a contemporary context within which to consider the behaviours of the young people attending EBD Units. Investigating the experience of young people attending EBD Units through a longitudinal research design offers the opportunity to examine their behaviour and its potential impact in a more full and meaningful way than cross-sectional studies. This approach will also provide the opportunity to contribute to the paucity of longitudinal data describing behavioural trends among those attending EBD units throughout adolescence. It may also offer an opportunity to provide a response to commentators in the drug use field calling for longitudinal research to describe and explain drug use and criminal behaviour and its longer term effects over time generally (Manski et al, 2001) but in particular with vulnerable or high risk groups of young people (Lloyd, 1998).

Methodology

Research Design. The drug use behaviours of young people attending EBD Units from the age of 11-16 years were examined using a repeated cross-sectional research design. This approach enabled the research to address to some extent the challenge of tracking a group of young people considered to be at a high risk to drug use over a long period of time. This was achieved by identifying and accessing the target sample annually for inclusion in the research each year. This research design shared the main characteristics of 'traditional' longitudinal single cohort studies. For example at each stage (i.e. year of the study) the same criteria was used to identify the young people for inclusion (i.e. attending EBD Units) and they were at an equivalent age to those participating in the mainstream school survey (i.e. school year 8, then year 9 the following year and so on until they had reached school year 12 when aged 15/16 years). Despite being acknowledged as less scientifically rigorous compared to 'traditional' longitudinal studies, repeated cross-sectional research designs have been advocated by the United Nations when resources are limited (UN Division on Narcotics, 1985). It is an approach that has been utilised in developing countries when comparable populations were surveyed over regular time intervals (Adelekan et al, 1996; Johnston et al, 1991; Wright and Pearl, 1995). This research design was used to monitor drug use behaviour among young people, including school surveys, during the 'early' days of studying adolescent drug use in the 1960s and 1970s (e.g. Roberts et al, 1995; Smart and Fejer, 1975). The advantages of repeated cross-sectional designs eliminates, to some extent, difficulties such as attrition, when tracking 'hard to reach' groups such as those attending EBD Units.

This approach therefore offered the opportunity to investigate the drug use behaviours of those attending EBD Units throughout adolescence. The data obtained was therefore comparable between years as well as for the overall duration of the study, again a similarity the research design shared with 'traditional' longitudinal designs (Gold and Reimer 1975). Furthermore at each stage of the research, data was collected on a core set of variables from each cohort of those attending EBD Units as well as the main school survey during each of the five years of the survey, again similar to the approach adopted in 'traditional' longitudinal studies (Menard 1991).

Sample. Young people attending EBD Units within the Greater Belfast area were surveyed during each year along with the main school survey. Table 1 presents the sample size of young people surveyed at each stage of the study. In year 12 two of the three EBD Units did not offer provision, these young people were offered educational provision in Alternative Education Projects which accounts for the small number of participants in year 5 of the study. The school survey included approximately 4000 young people attending mainstream school at each stage of the research.

Table 1: Demographic Profile of Research Participants

Demographic Factor	EBD Sample at Year 8 (11-12 years) n=10 (%)	School Sample at Year 8 (11-12 years) n= 3852 (%)	EBD Sample at Year 9 (12-13 years) n=12 (%)	School Sample at Year 9 (12-13 years) n= 4308 (%)	EBD Sample at Year 10 (13-14 years) n=16 (%)	School Sample at Year 10 (13-14 years) n= 4491 (%)	EBD Sample at Year 11 (14-15 years) n=10 (%)	School Sample at Year 11 (14-15 years) n= 3903 (%)	EBD Sample at Year 12 (15-16 years) n=4 (%)	School Sample at Year 12 (15-16 years) n= 3760 (%)
Male	90	55	83	48	94	48	90	47	75	47
Female	10	45	17	52	6	52	10	53	25	53
Two parents	30	80	17	77	23	75	40	75	0	74
Reconstituted Family	40	5	8	8	31	8	40	9	50	8
Single parent	30	15	75	15	46	18	20	15	50	18
Receipt of Free School Meals	60	25	92	25	63	24	60	20	75	20

Year 9 figures taken from McCrystal et al 2005

The cohort of young people attending EBD Units contrasted with their peer group attending mainstream school on a number of demographic factors. They were more likely to be male, less likely to live with both biological parents and much more likely to have been in receipt of free school meals, an indicator of social deprivation used by the Department of Education in Northern Ireland (Shuttleworth 1995) during each year of the study. For the purposes of this study those in mainstream school will be referred to as the school sample and those attending EBD Units as the EBD sample.

The Interview Protocol. An interview protocol was designed for annual datasweeps in the study which included a range of measures developed for the present study (i.e. drug use measures) and standardised measures (e.g. Stattin and Kerr 2000) to assess communication between the young people and their parents/guardians. This included a set of core questions on drug use, delinquency and antisocial behaviour, family composition, communication with parents/guardians, school factors, leisure behaviours and

neighbourhood factors. Detailed information on the measuring instruments is available from the BYDS technical reports (McCrystal et al, 2003; 2004; Percy et al, 2003). **An extract from the measuring instrument which includes the questions on cannabis use is included in appendix I.** These factors were identified as factors associated with illicit drug use from a search of relevant literature (e.g. Hawkins et al, 2002; 1992), and were investigated in the earlier paper which preceded this study (i.e. McCrystal et al, 2005a). The full measuring instrument was piloted annually in advance of each stage of the fieldwork undertaken during the study and included consultation with young people and professionals in the field of drug prevention.

Data Collection. A passive consent procedure was utilized during each year of the study. The parents/guardians of all young people participating in the research were provided with information about the study with a request for their permission for the participation of their son/daughter. The interview protocol was completed by the young people in the EBD Units they attended using a structured one-to-one interview format with the co-operation of staff in each unit. This took approximately 45 minutes to complete. The research team have experience of undertaking research interviews with young people considered to be at a high risk to drug use and anti-social behaviour (i.e. McCrystal et al 2005a; 2005b; 2005c). Data was also collected from approximately 4000 young people attending 43 mainstream schools in Northern Ireland at each stage of the study.

Data Analysis. Each completed interview protocol was coded and inputted onto the SPSS software. The analysis examined the drug use behaviours and lifestyle factors investigated in the earlier paper (McCrystal et al, 2005), these were drug use, delinquency, parental

supervision, attitudes to school, attitudes to their neighbourhood and leisure activities. Those recording a score above the median on each measure were recorded as high on this factor and those below this measure as low on the factor. The properties of these factors are presented in McCrystal et al (2005a).

THE FINDINGS

Drug use behaviour

The young people were asked questions on lifetime drug use (i.e. 'have you ever use…?). At each stage of the study, regardless of the age of the young people, those attending EBD units consistently reported higher levels of both licit and illicit drug use. Indeed illicit drug use amongst the EBD sample at the beginning of the survey (when aged 11/12 years) was comparable to the reported levels of use for the school sample at the fifth year of the survey when they were aged 15/16 years. It is perhaps noteworthy that the use of 'hard' drugs like cocaine and heroin was almost non existent within the EBD sample.

Table 2: Drug Use Prevalence Patterns

Substance	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Tobacco	90 (38)	92 (53)	88 (63)	100 (68)	100 (70)
Alcohol	60 (70)	50 (80)	88 (87)	80 (91)	100 (93)
Alcohol Intoxication	40 (21)	17 (32)	69 (47)	80(60)	100 (90)
Solvents	40 (6)	17 (10)	50 (15)	50 (15)	25 (15)
Cannabis	40 (8)	67 (20)	81 (33)	81 (43)	75 (47)
Ecstasy	20 (2)	0 (4)	25 (6)	10 (9)	50 (13)
Cocaine	0 (2)	8 (3)	6 (4)	10 (5)	25 (8)
Heroin	10 (1)	0 (2)	0 (2)	0 (1)	0 (12)

NB: Numbers in brackets refer to the survey of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

These young people also reported substantially higher levels of exposure to drug use (i.e. in response to the question 'have your ever been offered (*name of drug*) or were around when it was being used or could have had some if you wanted?) at each stage of the study (Table 3). Again the level of exposure to these substances for the EBD sample at the beginning of the survey was generally equivalent to the levels of exposure reported for the school sample at the end of the survey. Exposure to 'hard' drugs like cocaine and heroin was higher among the EBD sample compared with the school sample.

Table 3: Exposure to Drugs by Age

Substance	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 14-15 years] n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Solvents	50 (14)	33 (23)	56 (28)	70 (31)	75 (31)
Cannabis	70 (17)	83 (32)	94 (48)	70 (57)	100 (60)
Ecstasy	30 (6)	25 (10)	63 (17)	80 (23)	100 (30)
Cocaine	30 (5)	8 (8)	38 (10)	30 (13)	75 (19)
Heroin	10 (3)	0 (5)	13 (5)	30 (6)	100 (5)

NB: Numbers in brackets refer to the survey of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

The frequency of use of each of the substances listed in table 4 was obtained from questions on drug use patterns. This perhaps provides a more complete indication of the level of drug use. This table shows the proportions of young people who used these substances at least on a weekly basis at each stage of the research. Whilst the EBD sample reported higher levels of weekly use (or more) of most substances, the use of solvents and hard drugs like ecstasy, cocaine and heroin remained less frequent. For the other substances (cigarettes, alcohol and cannabis) by the third year when aged 13/14 years the EBD sample appear to have reached a level comparable with the school sample aged 15/16 years.

Table 4: Frequency of Substance (At least weekly)

Substance	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Tobacco	70 (5)	50 (16)	63 (29)	80 (50)	75 (53)
Alcohol	20 (5)	8 (14)	38 (20)	30 (41)	50 (54)
Alcohol Intoxication	- (-)	8 (7)	38 (29)	30 (39)	50 (45)
Solvents	0 (0.4)	0 (0.5)	0(0.5)	0 (9)	0 (8)
Cannabis	0 (1)	25 (20)	44 (23)	70 (33)	50 (32)
Ecstasy	0 (0)	0 (4)	0 (0.7)	0 (30)	0(22)
Cocaine	0 (0)	0 (3)	0 (0.7)	0 (17)	0 (9)
Heroin	0 (0)	0 (1.5)	0 (1.5)	0 (21)	0 (29)

NB: Numbers in brackets refer to the survey of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

When asked questions about how they access drugs, older friends were reported as the most popular source of alcohol for the EBD sample which contrasts with the school sample for whom same aged friends was the most popular source. By the fourth stage of the study increasing numbers of young people were obtaining alcohol from an off licence themselves. Older friends were the most popular source of cannabis during the first two years of the survey for the EBD sample but a 'dealer' became the most popular source by year 3, in contrast with the school sample for whom same age friends was a popular source for cannabis throughout the study. These trends were also similar for ecstasy use. Whilst alcohol use appears to be associated with social occasions (i.e. party/disco, friends house), it's use outside in the street remains the most popular location for the EBD sample throughout the study. This contrasts with the school sample for whom a house, either their own home or that of a friend became an increasingly popular location for alcohol use instead of 'outside in the street'. Cannabis use also appeared to be associated with social activity for the EBD sample throughout the study, whilst 'outside in the street' was the most popular location for its use, a friends house was also reported as a popular location. Other social venues (i.e. party/disco) were very popular occasions for cannabis use by the

EBD sample throughout the study but, whilst less so for the EBD sample, became increasingly popular for the school sample as the study progressed. Similar trends were reported for ecstasy use.

Delinquency and antisocial behaviour

The level of delinquency and antisocial behaviour was obtained from answers to 14 questions on delinquency and antisocial behaviour (see Table 6). This behaviour was consistently higher among the EBD sample at all stages of the study. This appears to have peaked at year 3 with a mean of 5.6 delinquent or antisocial items for the EBD sample and a mean of three offences for the school sample at this stage (Table 5). At no stage did the school sample reach the level of delinquency and antisocial behaviours of the EBD sample.

Table 5: Delinquency and Antisocial Behaviour Trends

Number of offences (Max =14)	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
0	0 (36)	8 (25)	6 (23)	20 (30)	0 (32)
1-3	50 (41)	50 (42)	31 (41)	30 (41)	75 (41)
4-6	10 (16)	33 (21)	19 (23)	20 (19)	0 (17)
7-9	20 (5)	0 (8)	19 (10)	20 (8)	25 (7)
10+	10 (2)	0(3)	25 (3)	10 (3)	0 (2)
Mean	4.2 (2.1)	3.5 (2.8)	5.6 (3)	4.6 (2.5)	2.8 (2)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

In particular the EBD sample reported higher levels of serious offending at an early age (i.e. joyriding, burglary), but these young people consistently reported more serious offending especially acquisitive crime (shoplifting; theft from a car; burglary) throughout the survey. Again the level of serious offending appears to have reached a high during the third year of the survey for all types of offending. Higher levels of offending reported by

the school sample included not paying the correct fare on a bus/train (i.e. fare dodge) and theft from school.

Table 6: Delinquency and Antisocial Activities

Delinquent Item	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=16 (%)
Fare dodge	50 (18)	8 (23)	31 (26)	10 (21)	0 (28)
Shoplift	50 (19)	42 (19)	50 (21)	30 (17)	25 (15)
Rowdy behaviour	40 (29)	42 (40)	63 (42)	60 (37)	50 (34)
Joyride (car theft)	20 (4)	25 (7)	31 (9)	20 (9)	0 (9)
Theft at school	10 (6)	8 (13)	13 (15)	10 (10)	0 (12)
Carry a weapon	50 (15)	25 (18)	44 (17)	50 (16)	25 (14)
Vandalism	30 (18)	33 (23)	63 (28)	50 (23)	25 (22)
Burglary	10 (3)	17 (4)	31 (5)	30 (4)	0 (4)
Graffiti	40 (26)	50 (37)	56 (40)	60 (38)	75 (32)
Rob (with a weapon)	0 (2)	0 (3)	19 (3)	20 (3)	25 (3)
Theft from home	30 (26)	33 (38)	25 (37)	20 (27)	0 (25)
Arson	10 (4)	0 (6)	25 (7)	30 (6)	25 (6)
Fight	50 (41)	50 (47)	88 (48)	60 (40)	25 (37)
Car theft	30 (3)	17 (3)	25 (4)	10 (3)	0 (3)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

Parental supervision

The level of parental supervision was measured using Stattin and Kerr's (2000) Parental Monitoring Instrument at each stage of the study. This instrument was designed to assess the level of communication between the young person and their parents/guardians across four factors. These factors were disclosure of information by the young person to their parent/guardian; solicitation of information by the parents/guardians; parents controlling their behaviour or closely monitoring it. The level of communication between the EBD

sample and their parents/guardians was comparatively poor at the beginning of the survey and generally appeared to become even weaker during the latter years of the research.

Table 7 : Parental/Guardian Monitoring by Age

Type of Monitoring	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Low disclosure	70 (37)	75 (53)	88 (58)	90 (60)	75 (60)
High disclosure	30 (63)	25 (47)	12 (42)	10 (40)	25 (40)
Low solicitation	50 (44)	50 (53)	75 (54)	60 (54)	75 (55)
High solicitation	50 (56)	50 (47)	25 (46)	40 (46)	25 (45)
Low Control	60 (45)	58 (47)	58 (48)	90 (52)	75 (55)
High control	40 (55)	42 (53)	45 (52)	10 (48)	25 (45)
Low monitoring	90 (45)	58 (53)	58 (52)	60 (55)	75 (53)
High monitoring	10 (55)	42 (47)	42 (48)	40 (45)	25 (47)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

School factors

The level of commitment to school was obtained from a range of questions on commitment to school (e.g. based on the extent to which they liked school) and motivation to do well there (i.e. based on measures such as their ambition to go to university after school). The EBD sample reported higher levels of commitment to school at the beginning of the study and their levels of motivation to do well when there appeared stronger at that stage. However these factors within the EBD sample appeared to become weaker (i.e. increasingly more likely to report lower levels of commitment/motivation) compared with the school sample for whom higher levels of commitment to school were reported as the

study progressed. Trends for motivation to do well at school amongst the school sample were less clear, particularly from the third year of the study.

Table 8: School Factors by Age

School Factor	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Low Commitment	60 (78)	50 (54)	64 (53)	60 (52)	75 (53)
High Commitment	40 (22)	50 (46)	36 (47)	40 (48)	25 (47)
Low Motivation	50 (62)	64 (50)	50 (37)	90 (59)	75 (55)
High Motivation	50 (38)	36 (50)	50 (63)	10 (41)	25 (45)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

Neighbourhood factors

The young people participating in the research were asked questions on the area in which they lived. These questions were categorised into two factors, attachment to the area in which they lived (i.e. 'I like where I live) and neighbhourhood disorganistaion (i.e. 'high levels of crime'). The EBD sample reported higher levels of attachment to the area in which they lived at the beginning of the study when aged 11/12 years but consistently reported lower levels of attachment to the area from then on. The trend in relation to levels of neighbourhood disorganisation was less clear throughout of the study among the EBD sample.

Table 9: Neighbourhood Factors

Neighbourhood Factor	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Low Neighbourhood Attachment	10 (12)	92 (56)	81 (82)	100 (83)	75 (41)
High Neighbourhood Attachment	90 (88)	8 (44)	19 (18)	0 (17)	25 (59)
Low neighbourhood disorganisation	0 (57)	67 (46)	87 (45)	70 (32)	25 (50)
High neighbourhood disorganisation	100 (43)	33 (54)	13 (55)	30 (68)	75 (50)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

Leisure activities

Low level home based leisure activities (i.e. watching television) were reported by the entire EBD sample at the beginning of the study but became less prevalent for them as the study progressed. Friends based activity (i.e. going to the cinema with friends) became less prevalent among the EBD sample as the study progressed. Out of home activities (i.e. 'hanging round the street') appeared to become less prevalent, however the general trend in relation to this type of leisure activity was less consistent.

Table 10: Leisure Activities by Age

Substance	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
Low level home based activities	100 (49)	92 (55)	6 (59)	10 (59)	75 (53)
High level home based activities	0 (51)	8 (45)	94 (41)	90 (41)	25 (47)
Low level friends based activity	30 (51)	50 (21)	63 (55)	70 (55)	75 (53)
High level friends based activity	70 (49)	50 (49)	37 (45)	30 (45)	25 (47)
Low level out of home based activities	30 (64)	42 (54)	76 (50)	60 (50)	50 (47)
High level out of home based activities	70 (36)	59 (46)	24 (50)	40 (50)	50 (53)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

The EBD sample also consistently reported going out more often in the evenings than the school sample (Table 11). This behaviour also appeared to reach a high in year 2 and 3 with nearly two thirds of the EBD sample reporting that they go out each evening of the week.

Table 11: Number of Evenings out each week by Age

Substance	School Year 8 (11-12 years) n=10 (%)	School Year 9 (12-13 years) n=12 (%)	School Year 10 (13-14 years) n=16 (%)	School Year 11 (14-15 years) n=10 (%)	School Year 12 (15-16 years) n=4 (%)
0	10 (8)	9 (6)	6 (5)	0 (0.2)	0 (0.4)
1	10 (10)	0 (5)	0 (3)	0 (3)	0 (4)
2	10 (18)	0 (14)	0 (12)	20 (13)	25 (19)
3	10 (13)	9 (14)	0 (13)	0 (15)	0 (19)
4	10 (10)	0 (10)	0 (11)	10 (12)	25 (15)
5	10 (7)	0 (9)	13 (9)	0 (11)	0 (11)
6	0 (7)	18 (9)	19 (9)	10 (9)	0 (7)
7	40 (28)	64 (35)	62 (38)	60 (37)	50 (25)
Mean	4.3 (3.9)	5.8 (4.5)	6.1 (4.7)	5.6 (4.8)	5 (4.3)

NB: Numbers in brackets refer to the school of mainstream school (n=approximately 4000)
Year 9 figures taken from McCrystal et al 2005

DISCUSSION

The findings from this paper are valuable for a number of purposes. Firstly they provide a demographic profile of young people with a statement of educational needs attending EBD units throughout adolescence, insights into the drug use patterns and general lifestyle behaviours of these young people. This profile and insights were compared with data obtained from same age young people attending mainstream school during the same period and has enabled the research to provide a snapshot of the development of drug use behaviours throughout adolescence from the end of primary school at age 11 until the end of compulsory schooling at the age of 16 years. The EBD sample was more likely to be male, live in a disrupted family and be in possession of an indicator of social deprivation (i.e. free school meals). They consistently reported higher levels of drug use, exposure to illicit drugs and more frequent licit and illicit drug use from entry to postprimary education to the end of compulsory schooling. These findings provide a contemporary context to the limited information base on drug use amongst young people with emotional and behavioural difficulties who traditionally report higher levels of drug use (e.g. Devlin and Elliot, 1992) and to the area of special educational needs more generally (e.g. Fowler and Tisdale, 1992).

Whilst the EBD sample reached relatively high levels of exposure to drugs and their use at a much earlier age than the school sample, perhaps of more concern were the high levels of regular use reported from the onset of the study which continued at a higher rate than among the school survey throughout adolescence. This suggests that the EBD sample may have moved beyond experimental drug use at an early age. For example a high proportion of cannabis users among the EBD sample reported a 'dealer' as a source for this substance

from the beginning of the study when the young people were aged 11/12 years whilst no one in the school sample reported this source at that age (older friends were the most popular source at that point). When using cannabis the most popular location was 'outside in the street' for the EBD sample, whereas a friends house was the most popular location for the school sample. This may suggest cannabis use was perhaps part of the organised social world of the school sample to a greater extent than the EBD sample.

A range of factors that are associated with increased likelihood to drug use appeared to have reached a high at a relatively early stage for the EBD sample during the third year of the survey which perhaps further indicated a progression to regular drug use. This may raise issues about the content of prevention initiatives, and perhaps more importantly the timing of delivery to those attending EBD units. The evidence from this paper appears to suggest that potentially higher levels of interventions are required for those attending EBD units and at an earlier stage than young people attending mainstream school. The findings from the study perhaps indicate that such proposed interventions should focus on the potential damage of licit substances such as tobacco and alcohol as well as illicit ones like cannabis and ecstasy. Whilst not attempting to undermine the potential damage that can be caused by more problematic or addictive drugs like cocaine or heroin, the focus of potential strategies could initially concentrate on addressing the general lifestyles and experience of young people in an attempt to make them more socially acceptable. This may be supported through a comparison of the findings from young people with emotional and behavioural difficulties with those attending mainstream school for whom levels of illicit drug use remained relatively lower throughout adolescence as providing examples of the content of such initiatives.

Despite the breadth of the present study, a number of limitations must be considered when assessing the value of the findings. Firstly, it was not possible to interview all the same individuals at each stage of the study. Secondly the number of participants in the study was relatively small compared with research involving young people attending mainstream schools. However the relatively small numbers of young people attending EBD units perhaps suggest that their exclusion from mainstream school based surveys does not significantly undermine their value. The findings do however suggest that they merit attention by researchers, academics and policy makers as a group in their own right due to the higher levels of illicit drug use, antisocial behaviours and increasingly weakening attitudes to school for example. Thirdly, no gender analysis was possible due to the small number of young females participating at each stage of the study. However, this may be explained by the lower number of females attending EBD units, which was beyond the control of the researchers.

Concluding thoughts

Despite the limitations of the present study, it has the potential to contribute to the paucity of research on adolescent drug use, particularly on drug use behaviours of young people with emotional and behavioural difficulties. The young people attending EBD units appear to be developing a lifestyle linked to illicit drug use, i.e. antisocial behaviour, detachment from school, poor communication with their parents/guardians, at an early stage of adolescence. Studies such as this are therefore valuable for providing empirical evidence on drug use behaviours of a vulnerable/high risk group that historically is considered difficult to access by researchers and to the area of special education needs more generally.

Having identified one high risk group and tracked their behaviour over five years, this study offers information that may inform potential interventions as well as providing insights into specific/targeted interventions that such groups may require. Clearly the timing of interventions is crucial with earlier interventions during adolescence more likely to be effective in addressing problem behaviours such as drug abuse and antisocial behaviours. The evidence provided within the study offers an opportunity to contribute to contemporary information to alcohol and drug education provision developed for use with young people attending EBD Units. It may also suggest that this topic may merit a higher priority within the existing curriculum. However without a full analysis of the current curriculum for young people attending EBD Units it is not possible to assess the validity of this comment.

In the case of young people who attend EBD Units, as the behaviours associated with illicit drug use appear to develop before they enter their teenage years specific targeted interventions by the age of 11 when they enter post primary school would appear to be appropriate. The study clearly highlights the value of targeting research resources to develop a valuable information base for drug prevention practitioners and policy makers in particular but also for those in the field of special education needs more generally.

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