



No. 258

Drug Use Among a Sample of Juvenile Detainees

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The issue of juvenile drug use and crime is of interest to a wide section of society. This paper examines the drug-taking patterns of a group of juveniles who were detained by police and interviewed as part of the Drug Use Monitoring Australia (DUMA) project. Most juveniles (around two-thirds) also gave a urine sample that was analysed for six classes of drugs. This paper reports on the 493 juveniles whose details are in the DUMA database.

For this group of juveniles, drug use is prevalent. Three-quarters of the juveniles reported using at least one illicit drug at some time in their lives, 46 per cent had used two or more drugs — most frequently cannabis and amphetamines. Over half (57 per cent) had used illicit drugs in the past 30 days. The average age of initiation for cannabis use was about 13 years. In addition, female juvenile detainees were more likely than male counterparts to test positive to heroin, amphetamines or cocaine. Few juvenile detainees (13 per cent) reported accessing treatment.

While a note of caution should be made because the sample is not representative of the general juvenile offending population, the findings highlight the need for continued commitment to early prevention and intervention strategies.

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Director

Drug use presents a challenge to most societies and is one of the major social issues that confronts Australia in the 21st century. Drug use among juveniles is critically important, as those who use drugs at an early age are more likely to continue alcohol and drug use in later life, to be associated with delinquent peers, and more likely to participate in deviant activities than those who do not use drugs (Zhang, Wiczorek & Welte 1997). It is associated with many other problems in their lives. Not least, it increases the risks of blood-borne diseases (such as AIDS and hepatitis B and C), suicide, and psychological as well as physical dependence (Putnins 2001).

In Australia there has been relatively little empirical work on juveniles and drug use (for some exceptions see Lennings & Pritchard 1999; Copeland & Howard 2001). Much of our knowledge is based on overseas research (see for example Killias & Ribeaud 1999) or derives from research on adult offenders and their drug use patterns (see Makkai 2002). This lack of research is surprising given the policy focus in recent years on early intervention and prevention agendas.

One of the aims of the Drug Use Monitoring in Australia (DUMA) project is to provide aggregated data on drug use among police detainees on key policy areas for government. Given the strong association with heroin and property offending (Makkai 2002), providing data on patterns of use among juveniles is important for those who deal with young offenders and those who make strategic policy decisions about resource allocations. This paper, which analyses some patterns of drug use, age at first drug use, the association between drug use and offending, and other characteristics of juvenile arrestees, is based upon data collected as part of the DUMA project. The paper concludes with consideration of some policy issues.

AUSTRALIAN INSTITUTE
OF CRIMINOLOGY

trends

&

issues

in crime and criminal justice

June 2003

ISSN 0817-8542

ISBN 0 642 53809 3



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Data Collection

The methodology of the DUMA data collection has been discussed in detail elsewhere (Makkai 2000; Makkai & McGregor 2003). Only a brief description is presented here. The DUMA project collects information from police detainees and is conducted quarterly by trained interviewers. Data is collected at Bankstown and Parramatta police stations (in Sydney, NSW), Southport watchhouse (Gold Coast, Qld) and Brisbane City watchhouse (Qld), East Perth watchhouse (Perth, WA), Elizabeth police station (in SA) and Adelaide watchhouse¹ (also in SA). Detainees are asked to take part in a structured interview and to supply a urine sample that is screened for specific drugs; namely cannabis, opiates, cocaine, methadone, amphetamines and benzodiazepines. Detainees are assured that their participation is voluntary and confidential. They can decline to take part, refuse to answer some of the questions or refuse to provide a urine sample. Police officers may judge that some detainees are not suitable to participate because they are intoxicated or violent, or because of language difficulties.

This paper examines DUMA juvenile data from 1999 to 2002. Specific juvenile data are only collected in the two Sydney sites (Bankstown and Parramatta). However, as the definition of a juvenile varies from one jurisdiction to another, for the purposes of this paper, juveniles are defined as persons aged less than 18. Accordingly, data collected on 17-years-olds in the Queensland sites have also been included in the analysis, giving a sample size of 493 juveniles. Of those, 53 were from the Southport site, 27 from the Brisbane City site, 174 from the Bankstown site, and 239 from the Parramatta site. Urine specimens were obtained from 307 detainees (62 per cent). As there are differences in access protocol for juveniles at each site, the data from juveniles are not a reflection of the overall number of

Table 1: *Per cent of juvenile arrestees by age and gender (row percentages)*

Age	11–12	13	14	15	16	17	Mean age
Female	2	8	18	18	17	37	16
Male	3	3	8	13	22	52	16
(Total n)	(13)	(19)	(53)	(71)	(102)	(235)	(493)

Note: Figures may not sum to 100 due to rounding.

Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

young people that police process at the respective police stations nor are they necessarily a random sample of all juveniles detained by police (Makkai & McGregor 2003).

Social Background of Young People Interviewed by DUMA

The young people comprised 360 males and 133 females aged between 11 and 17 years. While there were more males than females overall, the proportion of female detainees aged 15 years and younger was higher than that of males of the same age: 46 per cent compared with 27 per cent (see row percentages in Table 1). This profile is consistent with some Australian research on juveniles. For example Finnane (1994) found that girls who committed crimes were more likely to do so between the ages of 12 and 14, although approximately twice the number of males to females were detained. Research overseas has also found that more young women than young men appear and reappear in the courts for the types of crime brought to the attention of, and policed by, the criminal justice system (see Farrington 1994). While this does not indicate that girls become involved with crime

earlier, it appears to show that they come to the attention of the police at a younger age.

Table 2 examines self-reported level of education by the age of the young person. Although each jurisdiction has a legal age up until which young people must attend school (15 years) these data suggest that around two-fifths of the respondents under the legal age have left school. For those juveniles aged 16 and over, about two-thirds no longer attend an educational or training institution.

The young people detained by police reported living in a house or apartment owned by someone else, primarily family and friends. However, the older the juvenile the greater the likelihood that in the past 30 days they would report living in no fixed residence. Of the total juvenile sample, around three per cent had no fixed place of residence during the 30 days prior to interview, and around one per cent lived in a shelter or emergency accommodation.

Drug Use Prevalence: Self-reported Data

Self-reported data provide a wide range of information on drug use behaviour, including the extent

Table 2: *Per cent of schooling and housing status in the prior 30 days by age*

	11–15 years	16–17 years	All juvenile detainees
<i>Schooling</i>			
Still at school	57	17	29
Still in TAFE	3	17	13
Left after Year 10 or less	39	52	48
Left after Year 11 or 12	0	8	5
Left after TAFE	1	7	5
<i>Type of housing</i>			
Private house/apartment	9	14	12
Someone else's place	88	80	82
Shelter or emergency	1	1	1
Incarceration/halfway house	1	1	1
No fixed residence	1	5	3
(Total n)	(156)	(337)	(493)

Note: Figures may not sum to 100 due to rounding.

Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

and frequency of taking drugs over different periods of time. Figure 1 compares self-reported drug use prevalence rates over a lifetime and in the past 30 days. In the case of methadone and benzodiazepines the question refers only to illicit use.

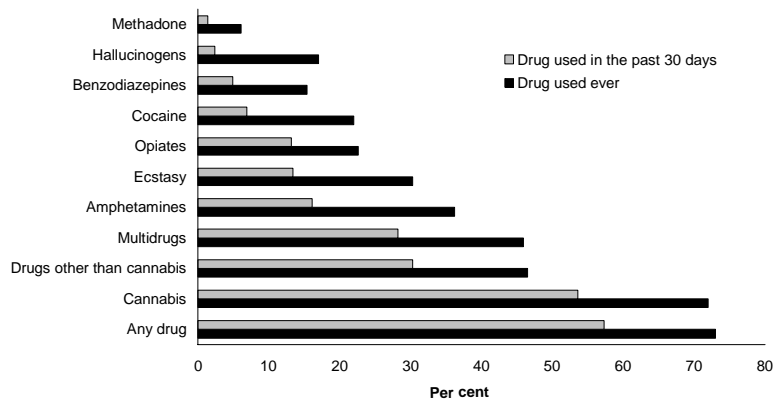
Overall, 73 per cent of juveniles reported having ever used one of the drugs, 46 per cent used two or more drugs, and 47 per cent used drugs other than cannabis. The most popular substance used was cannabis. Seventy-two per cent reported having ever used cannabis, and 54 per cent report using cannabis in the past 30 days. The next most popular drug was amphetamines (36 per cent had ever used and 16 per cent had used in the past 30 days), followed by ecstasy (30 per cent ever used and 13 per cent used in the past 30 days).

The picture for illicit opiate use (including heroin use) over a lifetime is similar to that for cocaine. About 22 per cent of juveniles reported having ever tried both illicit opiates and cocaine, while 13 per cent and seven per cent of juvenile detainees reported having used opiates and cocaine, respectively, in the past 30 days. Illicit benzodiazepines had ever been used by 15 per cent of respondents, with five per cent using in the past 30 days.

While 17 per cent of the juvenile detainees reported having used hallucinogens during their lifetime, only two per cent reported use in the past 30 days. The juvenile detainees were least likely to report ever using street methadone. Six per cent of juvenile detainees reported having ever used, and one per cent reported using street methadone in the past 30 days.

These rates are much higher than those for young people in the general population. The most recent National Household Survey on Drugs (AIHW 2002) indicates that although experimentation with cannabis was relatively high (34.3 per cent) among young persons (aged 14 to 19 years), the proportions who had ever tried

Figure 1: Self-reported lifetime use of drugs and use during the past 30 days



Note: "Multidrug" means at least two drugs. Methadone and benzodiazepines refer to illicit street methadone and benzodiazepines.

Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

heroin (0.9 per cent), amphetamines (8.4 per cent) or ecstasy (7.0 per cent) were considerably lower (AIHW 2002, pp. 22–28).

While the results are high for a juvenile population, they are lower than those for adult detainees in DUMA. For example, 70 per cent of adult detainees reported using one of the drugs, 42 per cent used two or more drugs, and 48 per cent used drugs other than cannabis in the past 30 days. With regard to particular drugs, 59 per cent reported using cannabis, 21 per cent used heroin, 33 per cent used amphetamines and nine per cent used ecstasy in the past 30 days.

Focusing on cannabis, there is no statistically significant difference in reported use, either lifetime or in the past 30 days, by males and females. In terms of self-reported lifetime prevalence of heroin, cocaine or amphetamines, there is no statistically significant difference between males and females (49 per cent of young female detainees had ever tried these drugs compared with 39 per cent of young male detainees). However, there is a statistically significant difference in the use of these drugs between young male and female detainees in the past 30 days. Thirty-five per cent of female juvenile detainees in the past 30 days, compared to 21 per cent of male juvenile detainees reported use. These gender differences have also been noted in the adult detainees.

Recent Drug Use: Urinalysis Data

There has been some research in the criminal justice system suggesting that self-reported drug use at the time of detention by police is under-reported (see Makkai & McGregor 2003). Although urinalysis has its own weakness—for example, some drug users may not supply a urine sample (in this sample 150 respondents refused to provide urine and 32 respondents reported that they tried but could not produce), and some regular drug users (especially of opiates) may test negative because they last used more than three days ago (urinalysis is only a reliable indicator of drugs that were used in the past few days). However, urine testing cannot determine whether use of legally available drugs, such as benzodiazepines, is for legitimate purposes.

Urine screen tests confirmed that many young people had used illicit substances in the period before their arrest. Figure 2 shows the proportions that tested positive to six classes of drugs.

The results show that as a whole:

- 48 per cent of the juvenile detainees tested positive to cannabis (40 per cent of females and 50 per cent of male detainees);
- 12 per cent tested positive to opiates (27 per cent of females and eight per cent of males); and
- 11 per cent tested positive for amphetamines (18 per cent of females and 10 per cent of males).

Very few juveniles (one per cent) tested positive to cocaine (three

per cent of females and 0.4 per cent of male detainees). Juveniles tested positive less frequently than adult detainees to all classes of drugs (see Makkai & McGregor 2003).

Overall, 55 per cent of arrestees tested positive to one of the six drugs, 19 per cent of them tested positive to two or more such drugs, and 24 per cent tested positive to a drug or drugs other than cannabis. In addition, the urinalysis results confirmed self-reported data that young female detainees were more likely to test positive to drugs like cocaine, amphetamines or opiates than male detainees. They were also more likely to use multiple drugs (32 per cent of females versus 16 per cent of males) or drugs other than cannabis (40 per cent of females versus 21 per cent of males).

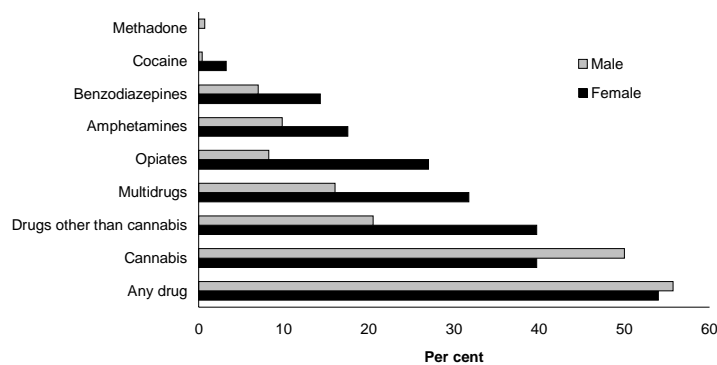
Offending Patterns and Drug Use

What offences are juveniles most likely to be arrested for? Detainees are often charged with more than one offence. DUMA collects all offences recorded for each detainee. The Australian Bureau of Statistics (ABS) offence classification scheme is used to assign each charge to one of eight categories. For the purposes of this analysis, detainees are then assigned to the category of their most serious offence. Categories range from most to least serious in the following order: violence, property, drug offences, drinking-driving, traffic, disorder, breaches, and "other" (Makkai & McGregor 2003). Thus, if a person has been charged with a drug and violent offence, the violent offence will take precedence.

With regard to the most serious charge, property offences were the most common offences that juveniles were charged with (54 per cent). This was followed by violent offences (22 per cent), breaches of justice orders (six per cent), drug offences (six per cent), traffic offences (four per cent), other offences (four per cent), disorder offences (four per cent), and drink driving offences (less than one per cent).

Figure 3 shows the offending profile broken down into two

Figure 2: Urinalysis results by gender



Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

groups – those who tested positive to cocaine, amphetamines or opiates, and those who did not. Of those who tested positive to these drugs, 57 per cent were charged with a property offence, and 15 per cent with a violent offence. Of those who did not test positive, 54 per cent were charged with a property offence, and 26 per cent with a violent offence. Thus, those testing positive were more likely to be charged with a property offence than those who tested negative, while those who tested negative were more likely to be charged with a violent offence than those testing positive.

The DUMA project also collects data on the number of self-reported offences committed in the past 12 months (excluding the current charges). Juveniles who tested positive to opiates, cocaine or amphetamines self-reported committing proportionally more offences than those who did not test positive to these drugs. The 68 juvenile detainees who tested positive to opiates, cocaine or amphetamines reported having committed 385 offences – an average of six offences per person over the past 12 months. The 239

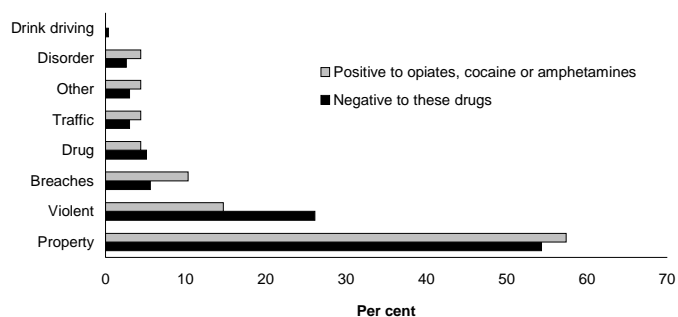
detainees who did not test positive to opiates, cocaine or amphetamines reported a total of 715 offences – an average of three offences per person over the past 12 months. These results indicate that juveniles who use opiates, cocaine or amphetamines are potentially more active in their criminal offending than non-users.

Age at First Use of Drugs

A variety of studies have shown that many juveniles have some experience with taking drugs but few continue to use drugs beyond a certain age (Davies & Coggans 1991; Plant & Plant 1992). Based on an international survey of the general juvenile population, Killias and Ribeaud (1999) reported that the mean age of first use of marijuana/hashish was around 16 years.

While relatively few young people in this study were arrested for drug-related offences, many of them admitted to using drugs. Juveniles who reported they had ever used drugs were asked what age they were when they first used illicit drugs. The age of initiation can provide useful

Figure 3: Most serious offence by the use of drugs



Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

Table 3: Average age of initiation for drugs by age

	11-12	13	14	15	16	17	Average age of initiation
Cannabis (n=352)	11	12	12	13	14	13	13
Cocaine (n=108)	11	–	13	14	15	16	15
Opiates (n=111)	–	12	12	14	14	15	14
Amphetamines (n=178)	–	13	13	15	15	15	15

Note: – means no respondent answered this age.

Source: Australian Institute of Criminology, DUMA collection 1999–2002 [computer file]

information on what age is more vulnerable for juveniles. But measuring age of initiation can be problematic, especially with juveniles. Some may have forgotten when they first tried the drug, or may provide misleading information (Makkai & McAllister 1997). Table 3 shows the age of initiation by the particular age of the respondents.

Several interesting points arise from this analysis. Not surprisingly, the mean age of initiation increases with the age of the juvenile. In the early ages there is a one-year gap between the juveniles' current age and their reporting of first use of the drug, but by 17 years the gap has generally increased to two years. Furthermore, it seems that older respondents may be more likely to report an older age of initiation. For example, age of initiation is compounded by the age of the respondents; a 14-year-old juvenile cannot report an older age of initiation than 14 years. Hence, it is more meaningful to look at the age of initiation by the particular age of the respondent.

There is a time lag between the first use of drugs such as cannabis and the first use of opiates, cocaine or amphetamines. Both younger and older juveniles are more likely to report a younger age of initiation with cannabis than drugs such as amphetamines, heroin and cocaine. The pattern is consistent for both adults and juveniles. For the adults, cannabis is the first illicit drug typically used, followed by a gap of four or more years before the other drugs are tried. The mean age of initiation for cannabis, amphetamines, opiates and cocaine use is 15, 19, 20 and 21 years respectively, which is older than the ages found in the juvenile data (see Table 3). The data indicate that the time lag between

the transition from cannabis to other drugs is between one and two years for juveniles, compared with four to six years for adults.

Treatment

It has been suggested that drug prevention and treatment are crucial to controlling delinquency and drug use, especially among multiple problem youths (Elliott et al. 1997). In the DUMA project, those juveniles who tried drugs illegally were asked if they had ever participated or were currently in a drug treatment program.² Of those detainees who reported having ever tried drugs, only 13 per cent of the juvenile detainees (n=33) said that they had ever been or were currently in a drug/alcohol treatment program.

Of these juveniles, 13 per cent did so as a requirement of the court, 33 per cent entered through a legal order, and 50 per cent entered treatment voluntarily. This pattern differs from the adult pattern where most detainees (more than 70 per cent) entered their treatment voluntarily (Makkai & McGregor 2003).

These differences may be explained by the nature of the DUMA juvenile sample. It is often the case that many juveniles are diverted from the criminal justice system and dealt with through other channels whenever possible, which include being given a formal caution or warning either inside or outside of the police station, or community conferencing. This practice may result in the DUMA sample containing those more persistent or serious juvenile offenders who may be less inclined to enter treatment voluntarily, while the adult sample is more representative of the general population.

Conclusions and Policy Implications

The data presented above indicate that:

- more than half of the juvenile detainees reported drug use in the month prior to their arrest;
- more than half tested positive to at least one drug;
- the most likely used substance was cannabis, followed by amphetamines;
- the average age of initiation for cannabis use was about 13 years, as compared to 14 and 15 years for the other drugs;
- the average time lag between the first use of cannabis and other drugs was between one and two years;
- female juveniles were more likely than male juveniles to test positive to heroin, amphetamines or cocaine;
- juveniles who had recently used heroin, cocaine or amphetamines self-reported much higher levels of offending in the past 12 months; and
- few juveniles reported accessing treatment and, when they had, this was often court-mandated.

These findings can help inform policy and practice. Due to the biological, psychological and cognitive characteristics of juveniles, they are vulnerable to many risk-taking behaviours of which drug use is potentially one of the most damaging. Furthermore, juvenile drug use is related to many social and psychological problems in later life that represent significant costs to the community.

The age of initiation is perhaps lower than previously believed and this highlights the need for continued commitment to early intervention and education. Studies have shown that well conceptualised intervention programs for juvenile offenders that take place in the community, working with families and through real issues, have a far greater chance of changing behaviour in the long term than most custodial programs (Atkinson 1997). There appears to be little evidence that incarceration reduces subsequent substance use (Putnins 2001).

Furthermore, an unintended consequence of incarceration is that juveniles come into contact with criminal values and expertise that is unrelated to drug use (Dobinson & Ward 1985; Davies & Coggans 1991; Hogg & Brown 1998).

This paper has demonstrated that drug use among juvenile detainees is prevalent and that reported access to treatment is low. The importance of the juvenile justice system as a point of referral to drug treatment cannot be underestimated. Given that juveniles often have other problems, including mental health issues, interventions within the juvenile justice system need to draw on the expertise of drug treatment and mental health providers (VanderWaal et al. 2001). Individual case managers need the training, expertise and institutional support to assist the person through not just the justice system but also the health, education, housing and welfare systems. A whole-of-government approach could provide considerable long-term benefits to the community. Such a holistic approach will not come cheaply in the short term but will reduce ongoing costs incurred through the judicial processes, recidivism, incarceration, and health care, as well as reducing fear in the community.

To a certain extent, this paper introduces more questions than it answers. For example, why are the rates of drug use higher for female detainees? It may be that females are less likely to engage in criminal behaviour, but those that do are more likely to engage in a range of socially deviant activities. In addition, why are so few juvenile detainees in treatment programs—is it because they do not have access or maybe that their drug use is not at a level that necessitates treatment? In order for these questions to be adequately addressed, further research into the area of juvenile drug use and crime needs to be conducted.

Notes

- 1 Data collections at the Brisbane City, Adelaide and Elizabeth watchhouses started in 2002.
- 2 It should be noted that due to DUMA questionnaire changes, only 2001 and 2002 data on treatment are used in this analysis.

Acknowledgments

DUMA is funded under a two-year grant from the Commonwealth Attorney-General's Department and the South Australian Attorney-General's Department. The Sallenger Centre at Edith Cowan University, Marg Hauritz Pty Ltd, Forsythe Consultants Pty Ltd, and Walsh and Associates Pty Ltd collected the data for the AIC's DUMA project, with the assistance of the New South Wales, Queensland, Western Australia and South Australia police.

This study was also funded by a grant (no. NIDS 032) from the National Health and Medical Research Council (NHMRC).

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Project no: 0015