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## Key Points

- Approximately one third of injecting drug users (IDU) reported becoming verbally aggressive and one sixth reported becoming physically aggressive following use of a drug in the six months preceding interview. They also witnessed substantial levels of substance-related aggression among other individuals known to them in this time.
- The most commonly reported drugs after which aggression occurred were alcohol, methamphetamine (particularly ice), benzodiazepines and heroin.
- Participants reporting methamphetamine as their drug of choice were more likely to report becoming verbally and physically aggressive following use of a drug.
- Younger IDU (i.e. those aged 18-24) were more likely to report aggressive behaviour.
- IDU who had been arrested in the past year were more likely to report substance-related aggression, as were IDU who reported committing crime in the month preceding interview. This suggests that aggressive individuals may be more likely to come to the attention of police.
- These findings have implications for management and/or treatment of IDU who are regular methamphetamine users by both law enforcement and health service providers.

## Self-reported Substance-Related Aggressive Behaviour in the IDU sample, 2004

### Introduction

#### **Methamphetamine and aggression**

Recent years have seen the diversification of the methamphetamine markets in Australia, with increased availability and use of more potent forms of methamphetamine (ice/crystal and base methamphetamine) (Topp et al., 2002). Intoxication due to use of stimulants such as methamphetamine has been associated with aggressive and violent behaviour. The connection is not a direct causal relationship, but is thought to be influenced by a number of other factors such as individual, situational and cultural factors (e.g. Boles and Miotto, 2003, Hoaken and Stewart, 2003, Wright and Klee, 2001, Henry-Edwards, 2003).

As a consequence of increased methamphetamine use, particularly of the more potent forms, there has been understandable concern that there could also be a concomitant increase in aggressive behaviour among those using the drug.

#### **Alcohol and aggression**

An association between alcohol and aggression has been well established, and has the greatest evidence to support a causal relationship (e.g. Henry-Edwards, 2003, Boles and Miotto, 2003, Hoaken and Stewart, 2003). Given the high prevalence of alcohol use in the Australian population (84% of the Australian population aged 14 years and over reported use of alcohol in the preceding year; Australian Institute of Health and Welfare, 2005), in addition to high rates of poly substance use by IDU, this is also an issue that warrants attention.

#### **Benzodiazepines and aggression**

Aggression associated with benzodiazepines use was also examined, as their use is common among IDU (e.g. in the 2004 IDU sample, approximately two thirds of participants reported use in the preceding six months on a median of 30 days, i.e. just over once per week). Although the literature is far from conclusive (Hoaken and Stewart, 2003), anecdotal reports suggest that use by some individuals may lead to or exacerbate aggressive behaviour, particularly when used in combination with alcohol.

### The 2004 IDU survey

In response to these concerns, the 2004 IDU survey included self-report items on substance related aggression ('In the last six months have you become verbally aggressive [threatening, shouting, abusive] following the use of alcohol and/or any other drug?' and 'In the last six months have you become physically aggressive [showing, hitting, fighting] following use of alcohol and/or any other drug?')<sup>1</sup>.

Recent use (i.e. use in the six months preceding the interview) of methamphetamine, alcohol and benzodiazepines among IDU in the 2004 sample is shown in Table 1. Full results of recent drug use patterns by the 2004 national sample are reported elsewhere (Stafford et al., 2004).

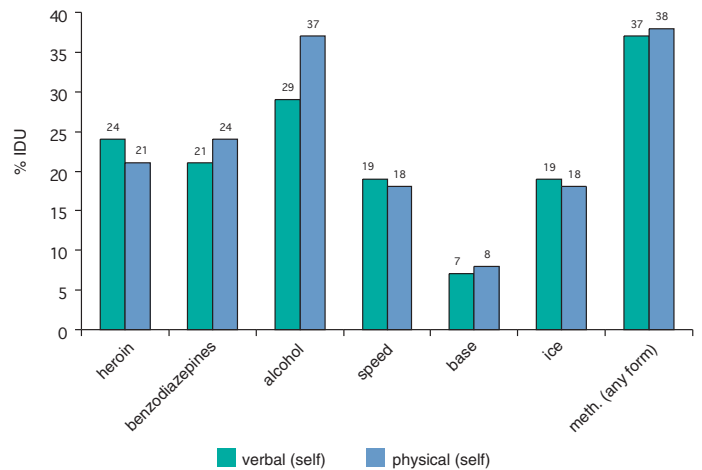
**Table 1:**  
**Recent use patterns of heroin, methamphetamine, alcohol and benzodiazepines in the IDU sample, 2004**

	% reporting recent use (median days used last 6 months; max=180 days)
Heroin	69 (median 72 days)
Methamphetamine (any form)*	74 (median 22 days)
Speed	53 (median 9 days)
Base	38 (median 10 days)
Ice	52 (median 6 days)
Alcohol	68 (median 12 days)
Benzodiazepines	67 (median 30 days)

\* includes speed, base, ice and liquid methamphetamine

Overall, 28% of the sample reported becoming verbally aggressive following use of alcohol and/or another drug in the six months preceding interview (Figure 1). A smaller proportion (15%) reported becoming physically aggressive following substance use in the preceding six months. There were no significant gender differences. The most commonly reported drugs after which aggression occurred were alcohol, methamphetamine (particularly ice), benzodiazepines and heroin.

**Figure 1: Proportions of IDU reporting aggression (verbal and physical) following use of a drug**



Participants reporting methamphetamine (particularly ice) as their drug of choice were significantly more likely to report becoming verbally and physically aggressive than those reporting preference for another drug<sup>2</sup> (Table 2).

**Table 2:**  
**Proportions of IDU reporting substance-related aggression, by drug of choice**

	Drug of choice= methamphetamine (any form) (n=190)	Drug of choice= other (n=758)	OR (95%CI)
Participant become verbally aggressive	37%	25%	1.686 (1.202-2.365)
Participant become physically aggressive	21%	14%	1.738 (1.157-2.611)

Age was also significantly associated with substance-related aggression, with younger IDU (under 25 years of age) more likely to report becoming verbally or physically aggressive following use of a drug than those aged 25 and over (Table 3). Both groups were equally as likely to observe others being aggressive following use of a drug.

1 Questions were worded such that participants might interpret the question as referring to while under the influence of a drug, while experiencing withdrawal, or both.

2 Heroin was by far the most commonly reported drug of choice (n=545), followed by methamphetamine (n=190), cannabis (n=68), morphine (n=55) and cocaine (n=30).

**Table 3:**  
**Proportion of IDU reporting substance-related aggression, by age group**

	AGE GROUP		OR (95%CI)
	Under 25 yrs (n=171)	25 years and over (n=777)	
Participant become verbally aggressive	36%	26%	1.59 (1.12-2.26)
Participant become physically aggressive	23%	13%	2.02 (1.34-3.04)

### Criminal activity

Participants who reported having been arrested in the preceding twelve months were more likely to report having become verbally and/or physically aggressive following use of alcohol or another drug (Table 4).

**Table 4:**  
**Proportion of IDU reporting substance-related aggression, by recent arrest**

	ARRESTED LAST 12 MONTHS		OR (95%CI)
	Yes (n=398)	No (n=545)	
Participant become verbally aggressive	34%	23%	1.67(1.25-1.23)
Participant become physically aggressive	20%	11%	1.93 (1.35-2.77)

Participants reporting a prison history (46% of the sample) were no more or less likely to report substance-related aggressive behaviour (verbal or physical) than those who had never been incarcerated.

However, those IDU who reported committing a crime in the preceding month reported significantly higher levels of aggression than those who did not report recent criminal activity (self report) (Table 5).

**Table 5:**  
**Proportion of IDU reporting substance-related aggression, by crime last month**

	COMMITTED CRIME LAST MONTH		OR (95%CI)
	Yes (n=453)	No (n=485)	
Participant become verbally aggressive	34%	21%	1.95 (1.46-2.61)
Participant become physically aggressive	21%	10%	2.5 (1.71-3.65)

### Conclusion

Substance related aggression was observed by a significant minority of IDU within the preceding six months. The majority of respondents had observed instances of others (not necessarily other IDU, but anyone known to them) becoming aggressive following use of a substance in the preceding six months. Clearly, the IDU interviewed for the IDRS are witness to significant levels of aggression and violence, which might reasonably be considered in future work.

These findings support anecdotal reports from law enforcement suggesting an increase in observed violent behaviour among IDU believed to be methamphetamine users. Raising awareness of this issue among law enforcement and health service providers who come into contact with regular methamphetamine users, where appropriate, may be useful to both staff and IDU involved. These findings also have implications for management and/or treatment of individuals with signs of amphetamine psychosis, e.g. in police stations and health services.

### References

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