Self-Reported Drug Use: How Prevalent is Under-Reporting?

Kiah McGregor
Toni Makkai
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Acknowledgements/ Disclaimer

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- Neither the collectors nor the police services bear any responsibility for the analyses or interpretations presented here
Introduction

- Most current Australian information relies on self-reported data
- People may conceal or exaggerate drug use
- Little work done in Australia on the extent of under-reporting
This Paper

- This paper will examine the extent of under-reported drug use in a sample of police detainees interviewed as part of the DUMA project.
- It will compare the results of self-reported drug use to the results of urinalysis testing to gain a measure of the extent of under-reporting.
The DUMA Project

- Drug Use Monitoring in Australia
- Running since 1999
- Data collections are conducted quarterly
- Two main parts – an interviewer administered questionnaire and a urine sample
- Both are strictly voluntary and confidential
DUMA Sites

- NSW sites (1999-2003)
  - Bankstown Police Station
  - Parramatta Police Station
  - Adelaide City Watchhouse
  - Elizabeth Police Station Cells
DUMA Participants

- All adult men and women
- Juveniles are included in the NSW sites
- Held in custody for less than 48 hours
- Not violent, unwell or intoxicated
- Deemed by police officer as safe to approach
Participation rates

- Participation rates high for social science survey
- 9074 detainees interviewed from 10,597 (86%)
- 6846 gave a urine sample (75%)
Inclusions in the analysis

- Must have given a usable urine sample
- Adults only
- 6475 of questionnaires and urine results analysed
Drug Testing Methodology

- Tests – cannabis, cocaine, methadone, opiates, amphetamines & benzodiazepines

- Two types of tests – screens and confirmatories

- Confirmatories detect specific drugs for opiates, amphetamines & benzodiazepines

- Focus on heroin, methylamphetamine & cocaine
Drug Use Among the DUMA Sample

- Drug use among this population is much higher than the general population.
- Self-reported use in the past 12 months, general population* vs. DUMA sample:
  - Opiates 0.5 percent vs. 19 percent
  - Amphetamines 3.4 percent vs. 25 percent
  - Cocaine 1.3 percent vs. 2.4 percent

## Heroin Concordance

<table>
<thead>
<tr>
<th></th>
<th>Urinalysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive (%)</td>
</tr>
<tr>
<td>Self-reported use past 2-3 days</td>
<td>68</td>
</tr>
<tr>
<td>Self-reported use past 30 days</td>
<td>80</td>
</tr>
<tr>
<td>(Total n)</td>
<td>(1199)</td>
</tr>
</tbody>
</table>

Source: Australian Institute of Criminology, DUMA collection 1999-2002 [computer file]
## Methylamphetamine Concordance

<table>
<thead>
<tr>
<th></th>
<th>Urinalysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>Self-reported use past 2-3 days</td>
<td>57</td>
</tr>
<tr>
<td>Self-reported use past 30 days</td>
<td>80</td>
</tr>
<tr>
<td>(Total n)</td>
<td>(1592)</td>
</tr>
</tbody>
</table>

Source: Australian Institute of Criminology, DUMA collection 1999-2002 [computer file]
## Cocaine Concordance

<table>
<thead>
<tr>
<th></th>
<th>Urinalysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive (%)</td>
</tr>
<tr>
<td>Self-reported use past 2-3 days</td>
<td>63</td>
</tr>
<tr>
<td>Self-reported use past 30 days</td>
<td>76</td>
</tr>
<tr>
<td>(Total n)</td>
<td>(158)</td>
</tr>
</tbody>
</table>

Source: Australian Institute of Criminology, DUMA collection 1999-2002 [computer file]
Type A Errors

Occurs when:

- positive urinalysis but use is denied
- a false positive test – occurs in 1-2 percent of cases
- through under-reporting of drug use – most likely
Type B Errors

Occurs when:

- a negative urinalysis but use is reported
- a miscalculation of time since the drug was last taken
- drug consumed was not what respondent thought
Do they know what they are taking -- the case of MDMA

- Methylenedioymethlyamphetamine - known on the street as “ecstasy”
- Self-reported use in past 2-3 days and urinalysis results
- Of detainees self-reporting ecstasy use in the past 2-3 days:
  - 20 percent tested positive to MDMA
  - 64 percent test positive to methamphetamine
Examining Under-reporting

- Of greatest interest is the level of type A error – under-reporting
- Following section examines only people who tested positive to heroin, methamphetamines or cocaine (n=2510)
- Compares those who reported use in the past 30 days with those who didn’t
- 95 percent under-reported none or all of their drug taking, five percent under-reported some
## Socio-demographic Profile

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

<table>
<thead>
<tr>
<th>Percent of Detainees</th>
<th>Accurately Reporting</th>
<th>Under reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>79</td>
<td>80</td>
</tr>
<tr>
<td>Single</td>
<td>61</td>
<td>58</td>
</tr>
<tr>
<td>10 or less years of education</td>
<td>65</td>
<td>64</td>
</tr>
<tr>
<td>Over 30 yrs old</td>
<td>33</td>
<td>43</td>
</tr>
<tr>
<td>Money from full time work, 30 days</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Lived in own house, 30 days</td>
<td>34</td>
<td>47</td>
</tr>
</tbody>
</table>
## Offending Behaviour

<table>
<thead>
<tr>
<th>Offending Behaviour</th>
<th>Accurately Reporting</th>
<th>Under reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detained for violent offence</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Detained for property offence</td>
<td>50</td>
<td>39</td>
</tr>
<tr>
<td>Detained for drug offence</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Arrested prior 12 months</td>
<td>72</td>
<td>52</td>
</tr>
<tr>
<td>In prison prior 12 months</td>
<td>33</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: Australian Institute of Criminology, DUMA collection 1999-2002 [computer file]
## Drug Related Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Accurately Reporting</th>
<th>Under reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>On drugs at time of arrest</td>
<td>68</td>
<td>44</td>
</tr>
<tr>
<td>Looking for drugs at time of arrest</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Purchased drugs, 30 days</td>
<td>86</td>
<td>51</td>
</tr>
<tr>
<td>Dependent on illicit drugs, 12 months</td>
<td>66</td>
<td>24</td>
</tr>
<tr>
<td>Ever been in drug/ alcohol treatment</td>
<td>60</td>
<td>47</td>
</tr>
<tr>
<td>Ever made money from drugs</td>
<td>59</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: Australian Institute of Criminology, DUMA collection 1999-2002 [computer file]
Discussion – the Under-Reporter

- Lives in his or her own home
- Employed full-time
- Over the age of 30
- No drug dependence in the past 12 months
- Not engaged in the drug-market in the past 30 days
Discussion – Accurate Reporter

- Detained for a property offence
- Prior contact with the criminal justice system over the previous 12 months
- On drugs at time of arrest
- Engaged in the drug market, past 30 days
- Self-reported drug dependence, past 12 months
- Been in drug or alcohol treatment during their lifetime
Discussion – Points to remember

- Focused on under-reporting drug-use
- Important to consider the whole sample
- Among all adults that produced a usable sample, the total concordance between results and self-reported use in the past 30 days:
  - 94 percent for cocaine;
  - 90 percent for heroin; and
  - 81 percent for amphetamines.
Conclusion

- Those with ‘more to lose’ may under-report their drug taking
- Has implications for self-report surveys done in the general population
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