A prevalence study:
Fetal Alcohol Spectrum Disorder
among young people sentenced to detention in Western Australia

Carol Bower, Natalie Kippin
FASD Conference, Perth 2018
### Studies of FASD among young people in justice systems

<table>
<thead>
<tr>
<th>Author, year</th>
<th>Setting</th>
<th>Method</th>
<th>FASD prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast et al 1999</td>
<td>Psychiatric service referrals Youth on remand</td>
<td>Physical exam, psychological assessment</td>
<td>67/287 = 23.3%</td>
</tr>
<tr>
<td>Murphy et al 2005</td>
<td>Youth in detention</td>
<td>Survey self-report</td>
<td>16/137 = 11.7%</td>
</tr>
<tr>
<td>Rojas et al 2007</td>
<td>Outpatient sex offenders</td>
<td>File review</td>
<td>25/230 = 10.9%</td>
</tr>
<tr>
<td>Smith et al, 2013</td>
<td>Youth in detention</td>
<td>Survey self-report</td>
<td>24/114 = 21%</td>
</tr>
</tbody>
</table>

No studies identified of systematic assessment of FASD domains of impairment

No data on FASD among young people in detention in Australia
The Banksia Hill Project

A feasibility study of screening, diagnosis and workforce development to improve the management of youth with fetal alcohol spectrum disorder in the justice system

**Funded by:** National Health and Medical Research Council

**Ethics approvals:** WA Aboriginal Health Ethics Committee, University of WA Human Research Ethics Committee

**Chief Investigators:** C Bower, R Watkins, R Marriott, R Mutch

**Associate Investigators:** S Zubrick, P Collins, C Pestell, J Fitzpatrick, J Carapetis
AIMS: Banksia Hill Project

• Establish an Australian estimate of FASD among youth in detention

• Develop, implement and evaluate a workforce development intervention

• Explore participant experiences through a qualitative case study
Disclaimer

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Acknowledgements

Young people at Banksia Hill, their families and carers
Banksia Hill Detention Centre staff
Department of Justice
Department for Child Protection and Family Support/Communities
Community and other service providers
Banksia Hill Project Team

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ASSOCIATE INVESTIGATORS

REFERENCE GROUP – DCS & DCPFS

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• First Peoples Disability Network Australia
• National Organisation for FASD Australia (NOFASD)
• Aboriginal Legal Service WA
• Office of the Inspector of Custodial Services
• Banksia Hill Detention Centre
• Consumer Representatives
• Chief investigators & project team
Banksia Hill Detention Centre

- The only youth detention facility in WA
- Youth 10-17 years of age
- On remand or sentenced
- Males (94%) and females
- 73% Aboriginal
- Average daily occupancy (2015-2016) = 133
We undertook...

Comprehensive assessment
Multidisciplinary team
– Research Officer
– Paediatrician
– Neuropsychology team
– Occupational Therapist
– Speech-Language Pathologist

▪ Prenatal alcohol exposure – AUDIT-C when possible
▪ Health assessment
▪ 9 domains of neurodevelopment (not Affect Regulation)
▪ Australian Guide to Diagnosis of FASD
Participation

166 young people

- Eligible and approached (2015-2016)

113

- Assented & consented

99

- Completed assessments
Participation

- 166 young people
  - Eligible and approached
    - (2015-2016)

- 113
  - Assented & consented

- 99
  - Completed assessments

- 93% male; 74% Aboriginal
- Third aged 17 years (range 13-17)
- 51% lived in metro area

Similar to Detention Centre population overall at that time
Who consented the young people?

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>63</td>
</tr>
<tr>
<td>Dept. for Child Protection &amp; Family Support</td>
<td>13</td>
</tr>
<tr>
<td>Guardian</td>
<td>24</td>
</tr>
</tbody>
</table>
### Table 4: Prenatal alcohol exposure for all young people completing the full fetal alcohol spectrum disorder (FASD) assessment

<table>
<thead>
<tr>
<th>Prenatal alcohol exposure</th>
<th>Total completing FASD assessment (N=99), n (%)</th>
<th>Diagnosed with FASD (N=36), n (%)</th>
<th>Not diagnosed with FASD (N=63), n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed</td>
<td>47 (47)</td>
<td>36 (100)</td>
<td>11 (17)</td>
</tr>
<tr>
<td>Confirmed high risk</td>
<td>28 (28)</td>
<td>22 (61)</td>
<td>6 (10)</td>
</tr>
<tr>
<td>No exposure</td>
<td>39 (39)</td>
<td>0</td>
<td>39 (62)</td>
</tr>
<tr>
<td>Exposure unknown</td>
<td>13 (13)</td>
<td>0</td>
<td>13 (21)</td>
</tr>
</tbody>
</table>
Diagnosis of FASD

- 36 young people fulfilled diagnostic criteria
  - 36% (CI 27%-46%); All FASD < 3 facial features
  - Aboriginal – 47% (35-58)
  - Non-Aboriginal – 8% (1-25)

- Only 2 of the 36 previously diagnosed
## Prevalence of impairment – severe range

<table>
<thead>
<tr>
<th>Domain</th>
<th>All participants %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement</td>
<td>62</td>
</tr>
<tr>
<td>Executive Functioning</td>
<td>54</td>
</tr>
<tr>
<td>Attention/speed of processing</td>
<td>55</td>
</tr>
<tr>
<td>Language</td>
<td>45</td>
</tr>
<tr>
<td>Memory</td>
<td>38</td>
</tr>
<tr>
<td>Motor Skills</td>
<td>29</td>
</tr>
<tr>
<td>Cognition (IQ)</td>
<td>21</td>
</tr>
<tr>
<td>Adaptive/social communication/ social skills*</td>
<td>6</td>
</tr>
<tr>
<td>Brain structure/neurology</td>
<td>1</td>
</tr>
</tbody>
</table>

* Not assessed for all participants
Prevalence of impairment – severe range

<table>
<thead>
<tr>
<th>Domain</th>
<th>All participants %</th>
<th>FASD %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement</td>
<td>62</td>
<td>86</td>
</tr>
<tr>
<td>Executive Functioning</td>
<td>54</td>
<td>78</td>
</tr>
<tr>
<td>Attention/speed of processing</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td>Language</td>
<td>45</td>
<td>69</td>
</tr>
<tr>
<td>Memory</td>
<td>38</td>
<td>56</td>
</tr>
<tr>
<td>Motor Skills</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>Cognition (IQ)</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>Adaptive/ social communication/ social skills*</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Brain structure/neurology</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

* Not assessed for all participants
Sentinel facial features

<table>
<thead>
<tr>
<th>Number of sentinel facial features</th>
<th>All</th>
<th>FASD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>73 (74)</td>
<td>21 (58)</td>
</tr>
<tr>
<td>1</td>
<td>14 (14)</td>
<td>9 (25)</td>
</tr>
<tr>
<td>2</td>
<td>12 (12)</td>
<td>6 (17)</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Reports and Feedback

Reports

• Results, recommendations & strategies
• Shared with those identified by the responsible adult
Impact of assessment

Parent of young person

“[name] is continuing to go from strength to strength and we have managed to action some of the recommendations, but it would be helpful that everyone has access to the contents contained within the report.”
Impact of assessment

Parent of young person

“[name] is continuing to go from strength to strength and we have managed to action some of the recommendations, but it would be helpful that everyone has access to the contents contained within the report.”

Youth Justice Officer

“The assessment has also assisted us in identifying a day program that would support his needs. At the moment, he is doing 2x half days of art with a local job network, which is really low stress, but is allowing him to achieve something; and then 2x days a week at [education service] ... and [they are] giving him lots of one on one support.”
Summary

Representative sample
• Comprehensive assessment
• 36% with FASD
• 89% with at least one impairment – severe range
  65% in ≥ 3 domains
• Most of these had not been previously identified

Limitations
• Incomplete information for some domains and prenatal alcohol exposure

Complexity
• time, size of Western Australia, language diversity, literacy levels, available services
• hope, harm, duty of care, ethics
The future...

1. Comprehensive assessment of young peoples’ needs as routine practice
2. Build capacity and support the workforce
3. Develop & evaluate evidence-based intervention programs