Lifetime prevalence and correlates of self-harm and suicide attempts among male prisoners with histories of injecting drug use

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Presentation overview

- Australian Prisoner characteristics
- Prison and Transition Health cohort study (PATH)
- Research Methods
- Study Results
- Discussions & Conclusions
Prisoners in Australia

41,202
- 92% Male
- 31% Un-sentenced
- 27% Aboriginal or Torres Strait Islander

Most common offences/charges
- Acts intended to cause injury (23%)
- Illicit drug offences (15%)
- Sexual assault (12%)
- Unlawful entry with intent (10%)


Mental Health of Australian Prisoners

1 in 2 Australian prisoners report ever being told by a health professional that they have a mental health disorder.  

Almost one quarter (23%) of Australian prisoners report a history of self-harm

Injecting drug use

45% of Australian prisoners report to have ever injected drugs²

Over half of people who inject drugs in Australian capital cities report previous incarceration³

². Australian Institute of Health and Welfare (2015);

Prison and Transition Health Cohort Study (PATH)

PATH
Characterise the prison to community trajectories of incarcerated males in Victoria, Australia, reporting recent regular injecting drug use.

Methodology
- Prospective cohort study
  - In-depth quantitative interviews via a structured questionnaire
  - Blood sampling and blood borne virus testing
  - Record linkage
- Recruitment between 2014 – 2016
- Exclusion
  - Individuals on remand
  - Females
History of non-suicidal self-injury (NSSI) & suicide attempts

Aim
To explore the level of mental health morbidity by describing the prevalence of self-reported history of non-suicidal self-injury (NSSI) and suicide attempt in a cohort of incarcerated males reporting histories of injecting drug use prior to their sentence.

“Have you ever attempted suicide?”

“Excluding suicide attempts, have you ever deliberately harmed or injured yourself?”
Methods & Analysis

Outcome Measures
- History of non-suicidal self-injury
- History of suicide attempts

Correlates

Socio-demographics
- Age, education, times moved accommodation, employment, relationship status, dependent children (with/without DHHS involvement), ever removed from family as a child, Aboriginal or Torres Strait Islander

Mental health
- Contact with mental health service, mental health diagnosis, psychiatric well-being

General health
- General health rating, intellectual disability

Substance use
- Duration of injecting history, drugs used in week prior to sentence, number of overdoses, high risk alcohol intake

Criminal justice
- Juvenile incarceration, number of adult incarceration episodes

Results

Sample Characteristics (n=364)
36 Participants excluded due to missing data
- Median age was 35.6 years (IQR = 11.9)
- 41% completed less than 10 years of education
- 44% had limited or no employment
- 16% identified as Aboriginal and/or Torres Strait Islander
- 65% moved accommodation prior to sentence
- 25% were removed from their family as a child

Outcomes
- 37% reported a history of non-suicidal self-injury
- 48% reported a history of suicide attempt
- 30% of the men reported a history of both non-suicidal self-injury and suicide attempt
## Results

### History of NSSI

<table>
<thead>
<tr>
<th></th>
<th>n=133(%)</th>
<th>OR(95%CI)</th>
<th>aOR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤29 years</td>
<td>39 (29)</td>
<td>1.72 (1.16-2.54)*</td>
<td>-</td>
</tr>
<tr>
<td>30-39 years</td>
<td>64 (48)</td>
<td>1.72 (1.16-2.54)*</td>
<td>1.46 (1.01-2.10)*</td>
</tr>
<tr>
<td>Moved accommodation ≥3 times in year prior to sentence</td>
<td>58 (44)</td>
<td>1.54 (1.11-2.13)*</td>
<td>1.40 (1.01-1.95)*</td>
</tr>
<tr>
<td>Removed from family home as child</td>
<td>42 (32)</td>
<td>1.36 (1.03-1.80)*</td>
<td>1.13 (0.86-1.50)</td>
</tr>
<tr>
<td>Intellectual disability</td>
<td>21 (16)</td>
<td>1.61 (1.16-2.22)*</td>
<td>1.27 (0.86-1.88)</td>
</tr>
<tr>
<td>Contact with mental health service</td>
<td>123 (92)</td>
<td>1.82 (1.03-3.22)*</td>
<td>1.47 (0.83-2.60)</td>
</tr>
<tr>
<td>Mental illness diagnosis</td>
<td>117 (88)</td>
<td>2.13 (1.34-3.37)*</td>
<td>1.65 (1.06-2.58)*</td>
</tr>
<tr>
<td>Current poor psychiatric well-being</td>
<td>74 (56)</td>
<td>1.62 (1.23-2.12)*</td>
<td>1.40 (1.07-1.85)*</td>
</tr>
<tr>
<td><strong>Overdose</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>34 (25)</td>
<td>1.53 (1.06-2.20)*</td>
<td>1.43 (0.99-2.07)</td>
</tr>
<tr>
<td>≥3</td>
<td>58 (44)</td>
<td>1.63 (1.18-2.26)*</td>
<td>1.71 (1.21-2.42)*</td>
</tr>
</tbody>
</table>

Note: * = p value <0.05; ** = p value <0.001; aOR = Adjusted odds ratio; collinearity was tested for, VIF<4.

### Results

### History of suicide attempt

<table>
<thead>
<tr>
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<th>n=133(%)</th>
<th>OR(95%CI)</th>
<th>aOR(95%CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact with mental health service</strong></td>
<td>159 (92)</td>
<td>1.81 (1.13-2.92)*</td>
<td>1.36 (0.86-2.16)</td>
</tr>
<tr>
<td>Mental illness diagnosis</td>
<td>152 (88)</td>
<td>2.21 (1.49-3.29)**</td>
<td>1.80 (1.21-2.69)*</td>
</tr>
<tr>
<td>Current poor psychiatric well-being</td>
<td>95 (55)</td>
<td>1.59 (1.28-1.98)**</td>
<td>1.39 (1.11-1.74)*</td>
</tr>
<tr>
<td><strong>Overdose</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>44 (26)</td>
<td>1.45 (1.08-1.93)*</td>
<td>1.36 (1.01-1.82)*</td>
</tr>
<tr>
<td>≥3</td>
<td>72 (42)</td>
<td>1.48 (1.14-1.92)*</td>
<td>1.44 (1.10-1.89)*</td>
</tr>
</tbody>
</table>

Note: * = p value <0.05; ** = p value <0.001; aOR = Adjusted odds ratio; collinearity was tested for, VIF<4.

Mental illness diagnosis, current poor psychiatric well-being and history of overdose were associated with both outcomes of history of non-suicidal self-injury and history of suicide attempts.

These exposures will be the focus of today's discussion.
Discussion & Conclusions

- First estimate of the prevalence of history of non-suicidal self-injury and history of suicide attempts in a sample of men in prison with histories of IDU.

- History of non-suicidal self-injury and suicide attempts were both associated with history of mental illness diagnosis, poor current psychiatric well-being and history of drug overdose.

- Prior or current mental illness is within the most robust clinical predictors of future self-harm and suicide attempt.4

- The point of prison reception is known to be a useful opportunity in identifying people with mental illness who may be at risk of self-harm.5 This may be identified through the use of a brief validated screening tool.

- All entrants are assessed within 24 hours of entry, inclusive of self-harm and suicide risk, with accessibility to assessment and treatment as needed.

Discussion & Conclusions

- Community health service contacts at pre- and post-incarceration offer an opportunity to identify those at risk of self-harm and suicide, 87% of prisoners reported prior contact with mental health services.

From previous Australian research:

- People who inject drugs (PWID) are frequent users of emergency departments (ED) and tertiary healthcare services.6-7

- 48% of prisoners presenting to ED post-release were identified by prison health records as at-risk of self-harm.8

- One in twelve ambulance attendances among recently released prisoners involved self-harm/ideation.9

- History of drug overdose was found to be associated with non-suicidal self-injury and suicide attempt, which is consistent with previous research.10 However, there remains some disagreement of the extent of this association.
Acknowledgements

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References

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