Prison mental health care: issues and questions

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And I twice took speaker’s fees from Janssen and Ely Lilly over 10 years ago
So what are we doing in prisons?

1. What is the context of our work?
Rising...

Rising offending rates: from early 1960s until the early 1990s

Rising incarceration rates: lagging 10-15 years behind crime rates.
Rising and incarceration [US data]

Figure 2.1  U.S. Unified Crime Report (UCR) crime trends and sentenced prisoners in federal and state institutions, 1931–2004, showing an increasing incarceration rate and a rising and falling crime rate. Rate of crime and rate of incarceration given are per 100,000 resident population.
Incarceration Rates in OECD Countries,
(Most Recent Year, 2008-2009)

- Iceland: 44
- Japan: 63
- Denmark: 66
- Finland: 67
- Norway: 70
- Sweden: 74
- Switzerland: 76
- Ireland: 85
- Germany: 90
- Italy: 92
- Belgium: 94
- France: 96
- South Korea: 97
- Austria: 99
- Netherlands: 100
- Portugal: 104
- Greece: 109
- Canada: 116
- Australia: 134
- Slovakia: 151
- Hungary: 152
- England and Wales: 153
- Luxembourg: 155
- Turkey: 161
- Spain: 162
- New Zealand: 197
- Czech Republic: 206
- Mexico: 209
- Poland: 224
- United States: 753

Rate per 100,000

Source: CEPR analysis of ICPS data
UN Victims of Crime Survey, 2007

Figure 3: Overall victimisation for 10 crimes; one year prevalence rates in 2003/04 (percentages) of the top 15 countries and results from earlier surveys. 1989-2005 ICVS and 2005 EU ICS*

- Average
- Ireland *
- England & Wales *
- New Zealand
- Iceland
- Northern Ireland
- Estonia
- Netherlands *
- Denmark *
- Mexico
- Switzerland
- Belgium *
- USA
- Canada
- Australia **
- Sweden *


** The Australian victimisation rate is based on 9 crimes because the question about victimisation by sexual offences was omitted; if data on sexual victimisation were included, the overall victimisation rate would be a percentage point higher (est. 16.5%).
Emergence of new ideologies:

Risk culture:

- Tough on crime
  - Tough on the causes of crime...
- Wars on...
  - Drugs
  - Terror
- Zero tolerance for....
Common attributes of these ideologies?

They don’t work.

- Crime rose and fell with no clear understanding of why
- Most tough-on-crime policies increase recidivism [mandatory minimums; incarceration versus community sentencing for less serious offending; registers; blocks to regaining citizenship]
- The laws of unintended consequences often prevail here
Or, as Banksy noted:
The Sorcerer’s Apprentice
[Goethe, 1797; after Pratt, 2007]

• An old sorcerer departs his workshop, leaving his apprentice with chores to perform. Tired of fetching water by pail, the apprentice enchants a broom to do the work for him — using magic in which he is not yet fully trained. The floor is soon awash with water, and the apprentice realizes that he cannot stop the broom because he does not know how.

• Not knowing how to control the enchanted broom, the apprentice splits it in two with an axe, but each of the pieces becomes a new broom and takes up a pail and continues fetching water, now at twice the speed.

• When all seems lost, the old sorcerer returns, quickly breaks the spell and saves the day.
The Real Politic of Tough-on-Crime

“Every time we proposed amendments to the Criminal Code, sociologists, criminologists, defense lawyers and Liberals attacked us for proposing measures that the evidence apparently showed did not work. That was a good thing for us politically, in that sociologists, criminologists and defence lawyers were and are all held in lower repute than Conservative politicians by the voting public. Politically it helped us tremendously to be attacked by this coalition of university types.”

Ian Brodie, former Chief of Staff to PM Stephen Harper speaking to a meeting at McGill University, in Cook and Roesch, 2011.
The other great movement has been deinstitutionalization e.g. NZ data.
And the conflation of the trends…

1. Rising crime
2. Deinstitutionalization
3. Rise of the risk culture and rise of fear

Despite largely falling overall offending from the early 1990’s onward.
So there are now many more people with mental illness in prison, right?

- Well, yes, but as far as we can tell, that is because overall there are many more people in prisons!
- No convincing adult studies showing increased prevalence of serious mental illness amongst prisoners (Simpson et al, 2013)
- So there is no overall ‘Penrose’ or ‘criminalisation’ thing going on here [there may be a ‘forensification’ thing, but that’s another story]

Except maybe the US, which is really an entirely different epidemiological space:

  5-7 fold more inmates per capita

  Gross failure of public policy for people with SMI
So what are we doing in prisons?

2. Service responses
Serious mental illness in prisons

What do we know about the size of the problem?

What do we know about the shape of the problem?

What do we know about service responses to it?
Size and shape of SMI in prisons

Multiple meta-analyses since Fazel and Danesh of 2002

- Largely say the same thing: around 15% have a serious mental illness [psychotic disorder, BPAD, current major depression]
- More common in women [maybe] and remand men [maybe]

But we know:

- little about help-seeking behaviour
- little about how much you bring your mental health problems with you, and how much develops when you are in prison
- little about what happens to your distress over time
Shape of the problem: course of illness during incarceration

Now 6 studies that have adopted and longitudinal approach to what happens to illness and distress during incarceration.

Men tend to settle

Women appear not to [Hassan et al, 2011]

Simpson, Martin, Colman and Mackenzie: Predictors and consequences of trajectories of mental illness among prisoners [CIHR funded study]

Aiming for 1000 sample size 1 year follow up study of sentenced male prisoners.
Application of epidemiological data to service design and delivery: NZ approach


- 1200 subject prevalence study; similar prevalence to Fazel et al’s meta-analytic results. 10-15% of the standing ppn need specialist care


- Examined access rates: only 35/% of persons with Scz received any care, similar for MDD.

- Using the studies of Gunn et al 1991, Brooke et al 1996; Singleton et al 1998, we [including Mark Earthrowl] converted research interviewer ratings to allocations of levels of clinical need and so estimated the size and shape of clinical teams necessary to meet this level of need.

- And advocated for this level of funding with the Ministry of Health

Which we got, 8 years later.
Finding the people

We knew that finding the people who needed our care was a problem [only the noisy and disruptive get referred; not the quietly suffering]

Screening was important, but which tool?


**Method:**
- 1296 screens completed on reception mostly remand using the BJMHS and Grubin’s EMHS
- 513 MINIs:
  - All positive screens
  - Random sample of negative screens

*camh*
Table 3

Performance of brief screens to detect mental disorders among male New Zealand (NZ) prisoners in this study and previous studies

<table>
<thead>
<tr>
<th>Measureb</th>
<th>Standard</th>
<th>N screened</th>
<th>Prevalence of mental disorder (%)</th>
<th>Accuracy (%)</th>
<th>Sensitivity (%)</th>
<th>Specificity (%)</th>
<th>False-positive rate (%)</th>
<th>False-negative rate (%)</th>
<th>Referral rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BJMHS</td>
<td>SCID</td>
<td>211</td>
<td>15</td>
<td>74</td>
<td>66</td>
<td>77</td>
<td>49</td>
<td>15</td>
<td>10</td>
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<tr>
<td></td>
<td>MINI</td>
<td>530</td>
<td>51</td>
<td>62</td>
<td>34</td>
<td>86</td>
<td>32</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>EMHS</td>
<td>SADS-L</td>
<td>90</td>
<td>20</td>
<td>63</td>
<td>97</td>
<td>84</td>
<td>10</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>MINI</td>
<td>530</td>
<td>51</td>
<td>60</td>
<td>42</td>
<td>75</td>
<td>40</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>BJMHS or</td>
<td>MINI</td>
<td>530</td>
<td>51</td>
<td>63</td>
<td>50</td>
<td>73</td>
<td>40</td>
<td>36</td>
<td>38</td>
</tr>
<tr>
<td>EMHS (NZ)</td>
<td></td>
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<td>MINI</td>
<td>530</td>
<td>51</td>
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<td>27</td>
<td>89</td>
<td>31</td>
<td>43</td>
<td>19</td>
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</table>

a BJMHS, Brief Jail Mental Health Screen; EMHS, English Mental Health Screen; SCID, Structured Clinical Interview for DSM-IV; MINI, Mini International Neuropsychiatric Interview; SADS-L, Schedule for Affective Disorders and Schizophrenia–Lifetime Version. Results in New Zealand were based on 1,292 screens and 530 MINI screens. In the New Zealand sample, sensitivity and specificity are adjusted to account for the bias introduced by the sampling procedure (all positive screens received MINI screens; a randomized 20% of negative screens were sampled).

b The BJMHS was previously studied in the United States by Steadman, et al., 2005 (3), and the EMHS was previously studied in the United Kingdom by Grubin, 2003 (unpublished manuscript).
Evans et al: major findings

- Acceptable for psychosis and mania

- All tools very poor for major depression at the point of reception
Systematic review of screening tools


Only four tools have been tested on independent samples:

- BJMHS [Steadman et al]
- CMHS [Trestman et al]
- EMHS [Grubin et al]

All much of a much-ness: over-refer, acceptable for psychosis and BPAD, nothing performs well for major depression.

The fourth validated tool, in our view, is not a screening tool:

- JSAT [Olley et al]

It may have other applications and is well validated.
Screening scoring methods


Exploited that the CSC screening interviews were computerized, so employed an iterative classification tree method to improve performance of the COMHISS, an unevaluated screener.
Table 1: Comparison of simple cut-off and iterative classification tree models

<table>
<thead>
<tr>
<th>Simple cut-offs</th>
<th>AUC = 0.69 (95% CI 0.64–0.74)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not require service</td>
<td>Requires service</td>
</tr>
<tr>
<td>n = 320 (63.5%)</td>
<td>n = 184 (36.5%)</td>
</tr>
</tbody>
</table>

Flagged (312, 61.9%)
154 (49.4%)
158 (50.6%)

Screened out (192, 38.1%)
166 (86.5%)
26 (13.5%)

<table>
<thead>
<tr>
<th>Iterative classification tree</th>
<th>AUC = 0.87 (95% CI 0.84–0.90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not require service</td>
<td>Requires service</td>
</tr>
<tr>
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<td>n = 184 (36.5%)</td>
</tr>
</tbody>
</table>

Flagged (118, 23.4%)
15 (12.7%)
103 (87.3%)

Unclassified (142, 28.2%)
83 (58.5%)
59 (41.5%)

Screened out (244, 48.4%)
222 (91.0%)
22 (9.0%)

CI, confidence interval.
The simple, binary cut-offs force a decision for every offender screened and as such, there are no unclassified cases.
So, we have the technology…

- But as you can see
  high referral rates,
  few validation studies
  few studies that evaluate the performance in the real world.

- And those that do are disappointing:
  E.g. Hassan et al, 2011; Senior et al, 2013; Hayes et al 2014:
  Consistent findings that many who screen as at least needing
  further assessment for mental health problems or suicidality receive little or
  no care; access as low as 25% [Senior et al]
  There is a major gap between who we think we should be
  reaching and how well we perform in actually reaching them.

- Why?
  Who asks, how we ask and whether people want to be seen?
  Morgan et al [2010, Gross and Morgan, 2013] in a series of
  studies show the high prevalence of criminogenic thinking of people with
  SMI in prison.
  They generally don’t come to us saying ‘get me out of here, I
  don’t belong….’ [Skogstad et al, 2011; Howerton et al, 2007]
So what are we doing in prisons?

3. A Model of Care
Key elements: in prison mental health

Screening
Triage
Assessment [IDT including physician]
Intervention
Recovery, rehabilitation, re-integration

The STAIR model
Prison Mental Health Services

- Screening
- Triage
- Assessment
- Intervention
- Re-Integration

Period of Incarceration

Admission → Release into community
• Should take place as soon as possible after admission

• Three valid screening tools

• Trained mental health staff

• Initiate the development of a referral

• Ongoing opportunities for further screening throughout incarceration
Prison Mental Health Services

Screening

Triage

- Referral to appropriate services for further evaluation and assessment
- Inmates requiring no further assessment sent to general prison population
- JSAT probably the only validated tool for this purpose

Admission

Period of Incarceration

Release into community
Prison Mental Health Services

Screening

Triage

Assessment

- In-depth assessment with clinical staff (e.g., psychiatrist, nurse)
- Development of a detailed treatment plan
- Referral to appropriate services based on needs

Admission

Period of Incarceration

Release into community
Prison Mental Health Services

- Screening
- Triage
- Assessment
- Intervention

- Continuum of services (e.g., acute care, intermediate care, and general prison mental health services)
- Holistic services
- Culturally competent services
- Needs-based treatment [Morgan et al, 2011]
Prison Mental Health Services

- Planning must occur well in advance of release date
- Referral to community mental health services
- Address housing, employment, and income needs
- Appropriate supports must be engaged prior to release e.g. FACT

Period of Incarceration

Admission

Screening

Triage

Assessment

Intervention

Re-Integration

Release into community
% are of the prison muster
(approximate numbers based on world literature)

MDT = multidisciplinary team

MH= mental health
A Pyramid of Mental Health Need

Almost all: substance use education

2% who need “acute” MH care

15-20% who need specialist MH care

50% Primary MH care

% of standing prison population
A test bed: New Zealand 1

McKenna, B; Skipworth, J; Tapsell, R; Madell, D; Pillai, K; Simpson, A; Cavney, J; Rouse, P. Prison mental health in-reach: the impact of innovation on transition planning, community mental health service engagement and re-offending. Criminal Behaviour and Mental Health. 2014 Sep 24

Does enhancing the model of care to specifically focus on desired outcomes [detection, engagement, and community reintegration] have an impact?

**Study:** A/B design in five prisons, remand and sentenced. No change in resources. Re-launched the service in an evidence-based manner with particular focus on detection, engagement, care planning and reintegration prior to release.

**Results:** Significantly more post-release community mental health service engagements after implementation of PMOC ($Z = -2.388, p = 0.02$). A trend towards reduction in reoffending rates after release from some of the prisons ($Z = 1.82, p = 0.07$).
A test bed: New Zealand 2


Same study, now looking at focus on triage. Correctional staff perform intake screen but PMH team staff more actively involved with reviewing the screens and performing triage interviews.

Results:
Statistically significant gains were made in the referral rates of prisoners with SMI (Z=-4.27, p<0.0001). Nurses were significantly more involved in triage assessments in the prisons; high rates of completion of the triage assessments within prioritised time frames; and multidisciplinary involvement in comprehensive assessments improved in some prisons.

Caseloads improved only up to 4% but the end of the study, but have continued to rise since, now touching 10% of prison musters, 3 years after introduction.
## Detection and engagement pathway: NZ.

*McKenna et al [in preparation]*

<table>
<thead>
<tr>
<th>Function</th>
<th>Pre-PMOC</th>
<th>Post- PMOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received</td>
<td>18,759</td>
<td>19,985</td>
</tr>
<tr>
<td>Screened</td>
<td>5351</td>
<td>11436</td>
</tr>
<tr>
<td>Screened positive</td>
<td>604 [3.2%]</td>
<td>758 [3.8%]</td>
</tr>
<tr>
<td>Triaged</td>
<td>554</td>
<td>621</td>
</tr>
<tr>
<td>MDT assessment</td>
<td>350</td>
<td>409</td>
</tr>
<tr>
<td>Caseload</td>
<td>255</td>
<td>301</td>
</tr>
</tbody>
</table>
A test bed: Toronto

Toronto South Detention Centre
1650 mainly remand centre; around 10,000 new receptions each year
Male, mean length of stay: 35 days

Sixteen clinical fte team, modelled on STAIR
  Screen: BJMHS
  Triage: JSAT
  Assessment: MDT
  Interventions
  Reintegration: in parallel

Evaluation using integrated care pathway

Very good docs: Dr Kiran Patel and
Dr Graham Glancy are the psychiatrists

Expanding to female facility later this year
Implications?

Models such as Critical Time Interventions and Sequential Intercept Model highlight the need for focusing on key tasks and transition points.

Standard CMHC or forensic outpatient models will not of themselves meet the needs.

A comprehensive in prison model of care that operationalizes these and places focus on key activities is essential: **STAIR** is proposed.
4. Some concluding thoughts
Health impacts of incarceration on the person [Smith, 2000]

- Removal from role, family and society negatively impacts health
  - Areas where people are deeply involved, may contribute to as well as take from

- Loss of control, autonomy, disempowerment, suffering inducing isolation

- Responses include self harm, emotional numbing, exploitation of those weaker than oneself [and being exploited..]
Human rights for Prisoners
[Ward and colleagues]

If social role is to be restored [rehabilitation] we must acknowledge offenders as:

- Rights violators of others
- Duty bearers [to respect the safety of others]
- Rights-holders [warranting respect and dignity]
And what standard of care do they deserve?

Equivalence [Exworthy and others]

Right to have their needs met? A rights based analysis

The best recent analysis of this was in:

*Brown EG, Governor of California, et al, Appellants v Marciano Plata et al.*

Opinion of the Court
“Overcrowding causes harm to people and property, leads to inmate unrest and misconduct, . . . and increases recidivism as shown within this state and in others.”
“Overcrowding causes harm to people and property, leads to inmate unrest and misconduct, . . . and increases recidivism as shown within this state and in others.”

Governor Schwarzenegger, cited Majority, p 36
US Supreme Court in a 5/4 decision, the Majority, found:

- “A prison that deprives prisoners of basic sustenance, including adequate medical care, is incompatible with the concept of human dignity and has no place in a civilized society”. P 13

- “Prisoners retain the essence of human dignity inherent in all persons.” p12

- Saw all prisoners as “that system’s next potential victims” p35

- Ordered a reduction in occupancy from 200% to 137.5% of design capacity
“Most of [those released] will not be prisoners with medical conditions or severe mental illness; and many will undoubtedly be fine physical specimens who have developed intimidating muscles pumping iron in the prison gym.” p5

Predicted that there will be “the inevitable murders, robberies, and rapes to be committed by the released inmates.” p13

Incarceration reduces crime, thus release will increase it.

As an aside, 156,000 is a small city, and small cities have many cases where ‘grossly deficient care was provided’, p 7.
Conclusions

We have a broad architecture of knowledge of the size of the problem.

We know a bit about the things we should do:

- we need to measure our performance informed by the patient pathway, not by single events along it.

But there is so much we do not know about the experience of incarceration and barriers to care, e.g.:

- to access
- to engagement
- to the self perceptions and attitudes that people develop, and the reasons why
- to successful re-integration