Early Intervention in Forensic Psychiatry

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Objectives

• Appreciate significance of associations between youth risk factors for mental disorder and offending
• Consider the early intervention model
• Explore possibilities for early intervention to reduce offending outcomes
• Discuss service models or alternative approaches
Who are you?

Child & Adolescent Forensic

Forensic
  • Inpatient only
  • Community
  • Prison

Non-Forensic
Chapter 23 Early Intervention to Reduce Violence and Offending Outcomes in Young People with Mental Disorders

Fraser, Purcell & Sullivan 2014
## PREVENTION?

<table>
<thead>
<tr>
<th>cohort</th>
<th>selection</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary</strong></td>
<td>universal</td>
<td>Population-based</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td>selectively targeted</td>
<td>At risk cohort</td>
</tr>
<tr>
<td><strong>Tertiary</strong></td>
<td>Indicated</td>
<td>Has already developed index condition</td>
</tr>
</tbody>
</table>
Offending behaviour trajectories

• Farrington 1986

- Peak onset in adolescence
- High rate of false positives for later offending/violence
- How to identify persisters vs desisters?
Offenders, Selected principal offence by median age (a)

- Homicide (b)
- Acts intended to cause injury
- Sexual assault (b)
- Dangerous or negligent acts (c)
- Abduction/harassment
- Robbery and extortion (b)
- Unlawful entry with intent
- Theft (b)
- Fraud, deception (b)
- Illicit drugs
- Weapons and explosives
- Property damage
- Public order
- Offences against justice (d)
- Miscellaneous

Median age (years)
Challenging assumptions

• Underlying factors often considered to be stable and observable in early life (before violence onset)
• Represent manifestations of differences in neurobiological function
• Allow categorisation of homogenous groups

BUT...
• Specificity of factors? (non-specific risk for MI and offending)
• Stability of factors? (escalation, desistance, modification/treatment)
• Need to explain escalation and desistance....
• Need to distinguish early forms of aggression from underlying factors
Developmental pathways

- Loeber 2008

- Escalation model
- Age of onset
- Diversification
- Desistance
Types of violence

Deconstructing violence as a medical syndrome: mapping psychotic, impulsive, and predatory subtypes to malfunctioning brain circuits

[Stahl 2014]

In acute psychiatric setting:

• ‘Psychotic’ (17%)
• ‘Impulsive’ (54%)
• ‘Predatory’ (29%)
Neurocognitive mechanisms

Instrumental violence Vs. Reactive violence

1. Reduced empathic responsiveness [instrumental]
   - ↓ amygdala activation (fearful/submissive stimuli)
   - Impaired reinforcement learning

2. Acute threat response [reactive]
   - ↑ amygdala/hypothalamus response
   - Stress, trauma, neglect
   - PTSD & Conduct Disorder (low callous-unemotional traits)

3. Reward-punishment based decision making [both]
   - Reduced response to reward
   - ↑ impulsivity

NB. Alcohol/substance use may involve all mechanisms
Greetings from A TOWN CALLED MALICE

"....dreaming of a quiet life"
Pittsburgh Youth Study

- Loeber et al. 2005

Strongest predictors of violence

- Low school motivation
- Truancy
- Delinquency < 10 years
- Cruelty to people
- Depressed mood
- Physical aggression
- Callous-unemotional behaviour
- Low family socioeconomic status
- Family on welfare
- High parental stress
- Disadvantaged neighbourhood

- Risk factors are additive up to 100% !!!
Conduct disorder & evolving personality disorder

High prevalence in youth mental health service
Medium prevalence in a forensic service

Identification

Multimodal intervention
PD “a diagnosis of exclusion?”
<table>
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<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary</strong></td>
<td>universal</td>
<td>Population-based</td>
<td>Education, prophylaxis</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td>selectively targeted</td>
<td>At risk cohort</td>
<td>Early identification, early treatment</td>
</tr>
<tr>
<td><strong>Tertiary</strong></td>
<td>Indicated</td>
<td>Has already developed index condition</td>
<td>Harm minimisation, outcome optimisation</td>
</tr>
</tbody>
</table>
Primary/secondary prevention strategies

- Early Intervention model (psychosis, trauma)

- NICE Guideline [CG158]: Antisocial behaviour and conduct disorders in children and young people: recognition, intervention and management
  - Selective prevention
  - Identification and assessment
  - Parent training programmes
  - Child-focused programmes
  - Multi-systemic therapy
  - Pharmacology
  - Models and delivery of care
Primary/secondary prevention strategies

- Centre for the Study and Prevention of Violence, University of Colorado

http://www.colorado.edu/cspv/blueprints

- Randomised controlled trial of parent groups for child antisocial behaviour targeting multiple risk factors: the SPOKES project

[Scott et al. 2010]
Tertiary prevention strategies ??

ASPD/psychopathy

• Integrated multi-modal approach to:
  – Reduce distress (medication, CBT, co-morbidity)
  – Reduce burden of morbidity (ill-health, suicide)
  – Assessment & management of risks....
    • PCL-R, HCR-20 etc
    • ? hospital admissions (co-morbid mental illness)
    • Multi-agency working, inc....
    • Criminal Justice System (prison, probation, MAPPA)

• Too little, too late....
Mental Illness & Offending

• Established relationship between severe mental illness and violence/offending. A significant proportion occurs during the first episode of psychosis (38% - 68%).

• A preventative framework for reducing violence/offending among the mentally ill is clinically warranted, but service models to address this are limited.
Predictors of offending

• Early life risk factors for offending
• Personality
• Developmental Conditions – ASC, ADHD, LD
• Substance use
• Mental illness
• Social deprivation / gangs

• Tools/skills to measure offending risk
Violence and Offending in Youth

- Offending peaks in mid to late teens (Rutter, 1995)
- Increased risk of aggression early in FEP (Humphreys et al, 1992)
- 4-5 X increase in risk of violence in those with psychosis (Fazel et al, 2009)
- 20 X increase risk of homicide with psychosis (Fazel et al, 2009)
- 38-61% homicides associated with psychosis occur in first episode (Nielssen & Large, 2010)
- Estimated homicide rate before treatment in FEP is 15 X higher than after (Nielssen & Large, 2010)
Recent reviews

- **Large et al, 2011** (meta-analysis)
  - 1/3 FEP commit act of violence before treatment
  - 1/6 FEP commit act of serious violence
  - 1/100 FEP commit act of severe violence (resulting in severe or permanent injury)

- **Nielssen et al, 2012** (systematic review)
  - 22-58% violent offenders with psychosis had no treatment prior to offence
  - 38.5% homicide offenders with psychosis never been treated with AP meds and were in first episode
The Math

- 1 in 600 patients with schizophrenia present for treatment by committing a homicide

- After treatment for First Episode Psychosis rate of homicide 1 in 9,000 patients per year

(Nielssen et al, 2012)
Early Intervention as a concept

- Early intervention in psychosis – model developed in Melbourne, Australia (McGorry 1992)
- Early detection and intervention
- Minimise Duration of Untreated Psychosis – ‘window of opportunity’ (Birchwood 1995)
- Low stigma environment
- Staged care model
- Cost savings – direct & indirect (Knapp & McCrone 2008)
Current situation in youth mental health

- Focus on reduction of impairment
- Reluctance to label as major mental illness
- Limited skills to confidently assess violence/offending risks
- Outcome measures: symptom burden and psychosocial adjustment

Vs forensic perspective

- Focus on high risk population and provide proportionate input
- Keen to address both mental disorder AND criminogenic needs
- Outcome measures: risk reduction, offending rate
Developmental Conditions – inter-service gaps?

• Autism Spectrum Conditions- some association between ASC and violent offending but not strong and poor predictive value

• ADHD – association between childhood ADHD and later offending & substance use. Treatable.

• Learning Disability – offending & challenging behaviour often present esp when difficulty communicating clearly
DEWSBURY COUNTY BOROUGH JUVENILE COURT
Town Hall, Dewsbury

YOU have today been placed on Probation for....................., because
the Magistrates have faith in you, and want to help you.

WHAT probation means will be fully explained to you by the Probation Officer,
and an official notice given you.

THE Probation Officer's name is........................................

ALWAYS remember these points about him:—
1 He is not a Policeman, but must be obeyed.
2 He likes Boys.
3 The Probation Officer is trained to understand boys and especially
   you.
4 He wants to help you.
5 He is your friend.
6 Trust him.
7 He will always be pleased to see you at any time.

Now you know something about the Probation Officer, allow him to know you.
1 Tell the truth.
2 Be a good lad.
3 Do as the Probation Officer tells you.
4 Go to School every day.
5 Do not be late.
6 If you don't know what to do, ask the Probation Officer.

The Magistrates want you to grow up to:—
1 Be happy.
2 Be useful.
3 Be friendly.

This is your chance. YOU must play a big part. YOU, and yet not you alone, but
YOU and the PROBATION OFFICER.

TO BE TRUSTED IS A BIG THING

Dated this........................................day of.....................185

Claimer........................................
Special types of Offending

- Sexual
- Stalking
- Fire setting
- Threats of mass killing
Specific problem behaviours

Low prevalence in a youth mental health service
Medium prevalence in a forensic service

Provision of specialised opinion for specific risk issues

*nb dearth of programs accessible to those not convicted*

- Fire-setting
- Sexual offending risk
- Violence
Opportunities for Early Intervention:

Stalking is largely constructed as the domain of adults

Thanks to A/Prof Rosemary Purcell
Principal Research Fellow & Forensic Psychologist,
Orygen Youth Health /University of Melbourne
Retrospective audit of consecutive court records for an application for a restraining order against a juvenile defendant in the Melbourne Children’s Court between Jan 1 2004 and Nov 30 2006
Unwanted intrusions that persisted for more than 2 two weeks
• Phone calls, text messages, letters, notes, emails, gifts, defaming rumours, web postings, confrontations, following, maintaining surveillance
• A distinction was drawn between bullying and stalking on the basis of where the behaviours occurred

Of 875 applications, 299 (34%) met the criteria for stalking

Victims
• 69% female (n=206)
• Mean age 18.8 years (SD=11.3, range: 5-77).
• 71% attending high school or primary school (12%)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approaches</td>
<td>76%</td>
</tr>
<tr>
<td>Telephone calls</td>
<td>42%</td>
</tr>
<tr>
<td>Text messaging</td>
<td>15%</td>
</tr>
<tr>
<td>Following</td>
<td>16%</td>
</tr>
<tr>
<td>Cyberstalking</td>
<td>11%</td>
</tr>
<tr>
<td>Loitering</td>
<td>10%</td>
</tr>
<tr>
<td>Spreading malicious gossip</td>
<td>7%</td>
</tr>
<tr>
<td>Maintaining surveillance</td>
<td>2%</td>
</tr>
<tr>
<td>Unwanted letters</td>
<td>2%</td>
</tr>
</tbody>
</table>

Median duration = 120 days  
(range: 16 days to 6 years)  

30% involved stalking by proxy
Key findings

Motivations: rejection, sexual predation, bullying and retaliation

Juvenile stalking is characterized by higher levels of threats and violence than is found in adult stalking samples

- Direct forms of contact favoured
- Greater involvement of female perpetrators
- More involvement of accomplices

The impact on victims is potentially serious, particularly given their age and psychosocial development

Despite suggestions of mental disorder, only one perpetrator was referred to mental health services
Issues

- Association with disordered attachments, poor social skills and impaired empathy
- Labeling and potentially stigmatising juveniles engaging in stalking behavior, vs not acting to prevent recurrence?
- Lack of availability of services/clinicians for juveniles identified by police & courts
- Often poorly managed within the school context
Case study - Selina

- 16 year-old woman with neurofibromatosis
- Poor prognosis, deafness and psychosocial issues arising
- Developed fixation on clinician at YMH service
  - NB boundary issues may be prevalent in youth services
- Telephone calls, efforts to visit at home
- Complex and ambivalent response from service
- Clinician guilty but terrified, required leave, psychological input and support
- Implicit threats when intervention from police
Sexually Abusive Behaviours in Juveniles
Sexually Abusive Behaviours

Age group (yrs)

Age

Testosterone (nmol/l)

0 5 10 15 20 25

6000

- ○

2007-08

2008-09
A significant minority of sexual offending against juveniles is by other juveniles.

There is a significant association between being a victim of CSA and later sexual offending.

There is a range of risk factors for SAB which overlap markedly with those for mental disorders.

Differentiating SAB from ‘experimentation’ may be complex and requires a clear developmental perspective.

Trauma history, attachment history and developmental issues often critical.
For early onset SAB, criminal sanctions may be unavailable due to *doli incapax*

Diversion into therapeutic interventions may be more effective than criminal sanctions in preventing recurrence

Treatment is highly specialised and differs from adult sex offender treatment

May need to be provided in conjunction with other mental health treatment and social interventions

Often involves multi-agency working / planning

High risk indicators in juveniles clearly warrant early intervention:

- escalation, multiple paraphilias, sexual sadism, fantasy
Case study - Laurence

23 yo single male
Lives with mo. – untreated schizophrenia for 10 yrs
GP referral – suicidal with a plan
Fantasies of sex with peripubertal girls
First episode psychosis
?Autism spectrum traits / personality vulnerabilities
Alcohol abuse as a inhibitor
→ Engagement and risk assessment
→ Treatment and risk management
→ Forensic consultation
→ Psychosocial rehabilitation
→ Reduction in offending risk
Juvenile firesetters

Specific motivations

Overlap with developmental /personality disorders

Potential for significant mortality, morbidity, expenses

Recidivism: 23%–33% (Stewart and Culver 1982; Repo and Virkkunen 1997)

Significant proportion of those with learning disabilities detained in forensic services have firesetting history (Taylor et al 2004; Hogue et al 2006)
Limited coordination of interventions

Fire education developed by fire services

Warning signs – fire play, escalation, fantasy

Intervention for recidivism

Overlap with other deficits especially in LD/DD populations – problem-solving, communication, handling negative emotion
Fantasy as behavioural rehearsal
Mimesis
Ressentiment
?a culture-bound phenomenon

Thanks to Emeritus Prof Paul Mullen
Forensicare study (Sharma, Sullivan, Warren, Mullen)

- retrospective case-control study

- **Cases** referred for *reportedly experiencing or communicating violent fantasies or thoughts towards others*

- **Controls** referred for *assault*
856 Potential participants

785 Files reviewed

72 Files/reports missing

454 Files excluded:
• 153 – case not relevant
• 94 – no evidence of ongoing violent ideation
• 76 – court transcripts only
• 63 – “throw-away” threats
• 54 – assault occurred out of acceptable time frame
• 9 – client did not give full interview
• 5 – other reason

259 accepted

140 Cases (Violent ideation)

119 controls (assault)
General information

- 79.6% of cases were Australian-born
- 82 out of 140 (58.6%) of participants entertained violent thoughts directed towards a targeted victim(s)
- 54 out of 140 (38.6%) had violent thoughts about a general or undefined victim(s).
- 23.1% thought about their own deaths along with that of their intended victims (out of the 46.4% of total cases in which this data was recorded)
Threats of Mass Killing

Motive for Violent Fantasy

<table>
<thead>
<tr>
<th>Motive</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger/Revenge/Conflict/Frustration</td>
<td>64</td>
</tr>
<tr>
<td>Hallucinations/Delusions</td>
<td>29</td>
</tr>
<tr>
<td>Fame/Notoriety/Power/Control</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
</tr>
<tr>
<td>Mixed</td>
<td>5</td>
</tr>
<tr>
<td>Unknown</td>
<td>20</td>
</tr>
</tbody>
</table>
Methods of Inflicting Harm Featured in Violent Fantasy

<table>
<thead>
<tr>
<th>Means to Cause Harm</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firearm</td>
<td>8</td>
</tr>
<tr>
<td>Knife/Sharp Object</td>
<td>23</td>
</tr>
<tr>
<td>Blunt Object (Bludgeoning)</td>
<td>2</td>
</tr>
<tr>
<td>Explosive</td>
<td>2</td>
</tr>
<tr>
<td>&quot;Organic Weapons&quot;</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td>Multiple Means</td>
<td>15</td>
</tr>
</tbody>
</table>
## Variables with an association

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cases</th>
<th>Controls</th>
<th>Chi-square</th>
<th>DF, N</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educated to yr 11-12</td>
<td>51.3%</td>
<td>35.6%</td>
<td>4.790</td>
<td>DF = 1, N = 220</td>
<td>&lt; 0.029</td>
</tr>
<tr>
<td>history of sexual abuse</td>
<td>25.7%</td>
<td>12.6%</td>
<td>6.186</td>
<td>DF = 1, N = 259</td>
<td>&lt; 0.013</td>
</tr>
<tr>
<td>history of physical abuse</td>
<td>42.9%</td>
<td>21.8%</td>
<td>11.870</td>
<td>DF = 1, N = 259</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>37.2%</td>
<td>14.1%</td>
<td>12.152</td>
<td>DF = 1, N = 206</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>
## Variables with an association

<table>
<thead>
<tr>
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<th>Controls</th>
<th>Chi-square</th>
<th>DF, N</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>fascination with violence</td>
<td>23.6%</td>
<td>5.9%</td>
<td>14.088</td>
<td>DF = 1, N = 259</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>history of animal cruelty</td>
<td>17.9%</td>
<td>4.2%</td>
<td>10.417</td>
<td>DF = 1, N = 259</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>primary diagnosis psychotic disorder</td>
<td>39.1%</td>
<td>62.5%</td>
<td>12.400</td>
<td>DF = 1, N = 245</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>primary diagnosis pers disorder</td>
<td>24.1%</td>
<td>12.5%</td>
<td>4.597</td>
<td>DF = 1, N = 245</td>
<td>&lt; 0.032</td>
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## Variables with NO association

<table>
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<th>DF, N</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary diagnosis mood disorder</td>
<td>13.5%</td>
<td>5.4%</td>
<td>3.721</td>
<td>DF = 1, N = 245</td>
<td>&lt; 0.054</td>
</tr>
<tr>
<td>overall substance use</td>
<td>25.7%</td>
<td>12.6%</td>
<td>1.454</td>
<td>DF = 1, N = 239</td>
<td>&lt; 0.228</td>
</tr>
</tbody>
</table>
Limitations

• Retrospective

• Methodology
  – Selection
  – file review

• Some categories developed post hoc

• Ascertainment bias ("did they ask?")
Exercise – what might a Forensic Early Intervention Service look like?
Obstacles

Access to youth justice populations
  service silos, differing cultures and perceived targets

Complexity and comorbidity
  especially developmental and learning disability, substance use

Concern about stigma, coercion

Therapeutic optimism or pessimism

Transition to adult services as a risk factor or vulnerability
Solutions

Inter-service links

Attention to transition

A skilled workforce

A preventive focus

Assertive case-finding

Evidence-based interventions
  Programmatic
  Educatvie
  Systemic and multi-modal
  Diversion from punishment
  Assertive substance use intervention
Managing risks of violence in a youth mental health service: a service model description

Early Intervention in Psychiatry, June 2012
Forensic satellite clinic description

- Orygen Youth Health (OYH) is a public mental health service for young people aged 15-25 located in north-western suburbs of Melbourne, Australia. EPPIC, PACE, Mood Disorders and HYPE clinics

- Forensicare is a public forensic psychiatry service with secure hospital, prison and community-based facilities in Melbourne.
Forensic satellite clinic description

• Pilot project initially funded for 1 year (Oct 2009 – Oct 2010)

• Monthly clinic operated by clinicians from Forensicare at Orygen Youth Health (OYH)

• Involved primary or secondary consultations (6 per month)

• Assessment involved violence risk assessment (HCR-20), protective factors (SAPROF), sex offending risk (J-SOAP), stalking risk (SRP), youth psychopathy (PCL-YV)

• OYH clinical team implemented risk management recommendations

• Additional functions included clinical supervision and professional development sessions
Pilot data: patient referral characteristics

- 54 patients referred, of whom 49 were assessed (71% male)
- Mean age at referral = 19.9 years (SD=2.7)
  - Australian born: 71%
  - Living status: living with parents: 69%
  - Unemployed: 45%, Employed: 20%, Studying: 31%
- Majority (59%) referred from early psychosis programs (41%: FEP; 18%: UHR), inpatient unit (10%) and intake/triage (10%)
Offences or problem behaviours

<table>
<thead>
<tr>
<th>Offence</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent behaviour</td>
<td>65.3%</td>
</tr>
<tr>
<td>Violent / homicidal thoughts</td>
<td>36.7%</td>
</tr>
<tr>
<td>Threats to others</td>
<td>18.4%</td>
</tr>
<tr>
<td>Stalking</td>
<td>10.2%</td>
</tr>
<tr>
<td>Problematic sexual thoughts</td>
<td>8.2%</td>
</tr>
<tr>
<td>Problematic sexual behaviour</td>
<td>4.1%</td>
</tr>
<tr>
<td>Fire-setting</td>
<td>8.2%</td>
</tr>
<tr>
<td>Internet child pornography</td>
<td>4.1%</td>
</tr>
<tr>
<td>Other (non violent offences)</td>
<td>20.4%</td>
</tr>
</tbody>
</table>

Current charges: 22.5%
Hx of criminal behaviour: 65.9%
Prior imprisonment: 16.3%
Hx of risk taking: 47%
Hx of physical aggression: 81%
Hx of substance misuse 69%
Risk assessment outcomes

- Low
- Medium
- High
Conclusions

• No real differences between cases and controls on clinical, demographic and psychosocial variables

• Differences between cases and controls in offending history and violence/aggression

• There is a need for YMH services to incorporate violence risk assessment and management into routine clinical practice

• Limitations (no test of effectiveness/impact on future violence & offending)

• Future research pending
Questions?
Thank you
available in Dropbox until end March 2015:

http://tinyurl.com/pmko7os

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