Introduction

• Why we bothered
• DUP and Psychotic Homicide
• DUP and Mental Health Law
• Homicide in the UK 1957-2004
Why we bothered

Homicides by patients with a schizophrenia related psychosis in NSW 1990-2005

$\frac{71}{124}=57\%$ FEP
EXPECTED VALUES

• Assuming a total illness of 25 years and a DUP of 1 year you would expect 5/125

• CHI SQUARE = 82,  P <<< 0.0001

• ABOUT THE SAME CHANCE AS A MONKEY WRITING ROMEO and JULIET

Risk of Homicide in FEP

• Imagine you opened a panel beaters shop and noticed that 40% of all the cars you repaired were less than three months old
Absolute Risk

- NSW HAS 6.5 million people
- Incidence of FEP 20 per 100 000 per year
  \[ = 65 \times 20 \times 15 \text{ years} = 19\,500 \text{ new cases} \]

- \[ 71/19\,500 = \text{One in 274 cases of schizophrenia presented with a homicide in the period 1990-2005} \]
We were amazed

But two studies from the UK in 2006 showed the same finding

Two Systematic Reviews

- 16 studies of homicide with documented treatment status
- 140 samples of DUP in 99 papers
- DUP quite stable across countries when you control for % Schizophrenic patients
- Pakistan > USA > Canada > Australia > UK > Finland

- 13 homicide studies matched with DUP
DUP Vs proportion of homicides prior to treatment

![Figure 2. Percentage of FEP homicide and Mean DUP](image)

**Rough Rule for % of FEP Homicides**

- DUP 150 weeks (Pakistan) 75%
- DUP 60 weeks (Canada, USA, NSW) 50-60%
- DUP 30 weeks (UK) 40%
- DUP 15 weeks (Finland) 20%
DUP and the risk of homicide in FEP

- The incidence of homicide in FEP depends on:

  1. the total rates of psychotic homicide (Beta 0.6, p=0.048) and
  2. DUP (Beta = -0.6, p=0.047)

Factors that did influence DUP (meta- analysis for mean, weighted regression for median)

- The proportion of schizophrenic subjects

- Low and High income countries
GDP and DUP

<table>
<thead>
<tr>
<th>GDP ppp</th>
<th>Low</th>
<th>Lower Middle</th>
<th>Upper Middle</th>
<th>High</th>
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<tbody>
<tr>
<td>Mean DUP</td>
<td>164</td>
<td>158</td>
<td>49</td>
<td>65.5</td>
</tr>
<tr>
<td>Median Dup</td>
<td>108</td>
<td>29</td>
<td>19</td>
<td>19</td>
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</tbody>
</table>

Why does DUP go up with High GDP?

Culture of individualism?
Lower Govt. spending on health in HI countries?
Mental Health Law?
Hypothesis

That DUP will be longer in countries in which dangerousness to self or others is the only criteria for involuntary treatment (obligatory dangerousness criteria, or ODC)
Danger in first episode

- 90% lack insight
- 20% + express suicidal ideas
- 50% hostile
- 20% violent
- 10% serious violence
- ? Poor self care

Hospitalization

- 80% admitted early after contact with services
- Involuntary admissions rates 20-70% in FEP
Methods

- DUP of schizophrenia related conditions
- Developed western countries
- Search of data about mental health law

Obligatory Danger Criterion

- USA, Australia, Germany, France, Austria, Belgium, Netherlands, 5 of 11 provinces in Canada have an ODC
- UK, Spain, Finland, Italy, Denmark, Portugal, Greece do not
- New Zealand No ODC for 1st episode
### Results

<table>
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<tr>
<th></th>
<th>ODC</th>
<th>NO ODC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DUP</td>
<td>79.5</td>
<td>55.6</td>
<td>0.007</td>
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<tr>
<td>Median DUP</td>
<td>27.5</td>
<td>19.9</td>
<td>NS</td>
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<tr>
<td>Age</td>
<td>24</td>
<td>26</td>
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<tr>
<td>% Schizophrenia</td>
<td>60.3</td>
<td>61</td>
<td>NS</td>
</tr>
<tr>
<td>Specialist service</td>
<td>7</td>
<td>9</td>
<td>NS</td>
</tr>
<tr>
<td>Tax Funded health</td>
<td>7</td>
<td>31</td>
<td>0.0001</td>
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<tr>
<td>Psychiatrists pc.</td>
<td>10</td>
<td>11</td>
<td>ns</td>
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<tr>
<td>Psych Beds pc.</td>
<td>14</td>
<td>11</td>
<td>0.39</td>
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<tr>
<td>GDP ppp</td>
<td>38 000</td>
<td>32 000</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
Stepwise Regression

ODC was the ONLY significant factor

Can psychotic homicide can be reduced

- Method: re-examination of UK abnormal homicide data

- Taylor & Gunn (BJP, 1999) “mentally ill homicide has shown little variation in the last 38 years”

- WRONG, WRONG, WRONG ....WRONG
Psychotic homicide went up with total homicide until the 1970s

- Migration within UK and from OS
- Increases in other crime
- Loss of social cohesion
- Changing patterns of substance abuse
Then fell to levels of 1950s

- Education of GPs about mental illness after deinstitutionalization
- Introduction of health authorities with responsibility for a defined population
- Better treatments
- Psychotic homicide is now much less frequent in the UK than in NSW

Compare the situation in the USA

- Very poor services
- DUP 80 weeks
- 2 million prisoners
- 220,000 in gaol for homicide offences
- 5% psychotic = 11,000 psychotic homicide detainees
- > 5000 FEP patients in gaol for Homicide
We can choose the USA or UK Model

A good start would be a new MHA