How can systems learn from each other?
The role of data and research

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Disclosure

I have no potential conflict of interest to report.
Questions?

• Are we learning?
• Is mental health care getting better?
• If so, why?
• If we have learnt, from what?
• Role of data and research?
Examples

- Good evidence for the effectiveness of acute day hospitals
- No evidence for the effectiveness of community treatment orders
- Evidence for harm through debriefing
- Questionable evidence for the effectiveness of antidepressants in mild and moderate depression
Further questions?

• What services have ever been established because of research evidence?
• What services have ever been abandoned because of research evidence?
• Which countries do we want to learn from?
• What can we learn from other countries?
• Do we understand the systems we want to learn from?
Some hurdles

• Different health and social care systems
• Language
• English?
  “he came into psychiatry”
• Different cultures and traditions
• Learning from commonalities or from differences?
Assertive Outreach effects

- Studies in North America positive
- Not replicated in Europe
- Debate on the reasons for the difference
- Model adherence?
- Different systems?
Assertive Outreach effects

• Meta-analysis on factors influencing the findings
• Higher baseline bed use (greater reduction)
• Higher model fidelity (greater reduction)

Burns et al., BMJ, 2007
Assertive outreach: RCTs

<table>
<thead>
<tr>
<th>Region</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH AMERICA</td>
<td>1.57</td>
<td>2.35</td>
</tr>
<tr>
<td>EUROPE</td>
<td>1.75</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Mean Days in Hospital/month

Team characteristics and outcomes

- Pan London Assertive Outreach Study
- 24 teams and 580 patients
- Weekend working significantly associated with more voluntary and involuntary admissions

Priebe et al., Br J Psychiatr, 2004
Individual placement and support trial

• IPS vs vocational rehabilitation
• Trial in six European countries
• Primary outcome: working in regular employment for at least one day
• Overall: 54.5% vs 27.6%
• P <0.001

Burns et al., Lancet, 2002
Worked for a day by centre

Percentage

IPS
Vocational Service

London
Ulm
Rimini
Zurich
Groningen
Sofia

0
10
20
30
40
50
60
70
80
90
IPS effectiveness within centres

% worked at least one day

London Ulm Rimini Zurich Groningen Sofia
DIALOG trial

• Regular use of DIALOG vs treatment as usual
• Over a one year period
• Trial in six European countries
• >500 patients
• Primary outcome: subjective quality of life

Priebe et al., Br J Psychiatr, 2007
## Overall findings

<table>
<thead>
<tr>
<th></th>
<th>Treatment as usual</th>
<th>Intervention group</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life (MANSA)</td>
<td>4.74</td>
<td>4.86</td>
<td>0.047</td>
</tr>
<tr>
<td>Treatment satisfaction (CSQ)</td>
<td>25.8</td>
<td>26.7</td>
<td>0.007</td>
</tr>
<tr>
<td>Needs (CANSAS)</td>
<td>2.46</td>
<td>2.07</td>
<td>0.04</td>
</tr>
</tbody>
</table>
Participating centres

- Granada
- London
- Lund
- Groningen
- Mannheim
- Zurich
DIALOG trial

• Significant effects in only in Granada and London
• No interaction effect on primary outcome
• Interaction effects on secondary outcomes
Conclusions from these studies?

- Significant effects in only some centres
- No interaction effects on primary outcomes
- Assumption of commonalities
- Learning with each other, but not from other countries
The COFI study

• Assessing in-patients in five European countries: Belgium; Germany; Italy; Poland; United Kingdom

• Total sample of 7304 patients

• Outcomes:
  - treatment satisfaction; CAT 0 (low) to 10 (high)
  - length of stay; days

Giacco et al., BMJ Open, 2015
Treatment satisfaction

• Fully adjusted means per country
  o Belgium: 7.8 (0.4)
  o Germany: 7.5 (0.4)
  o Italy: 7.6 (0.4)
  o Poland: 7.9 (0.4)
  o UK: 6.9 (0.5)

• UK significantly less satisfied compared to all other countries

Bird et al., in preparation
Predictors across all countries

+ Age
+ Living with others
+ Having a close friend
+ First admission to hospital

- Higher education
- More severe clinical symptoms
- Comorbid diagnosis of personality disorder
- Involuntary admission
Length of stay

Total sample: 39.4 (sd=49.9)

Fully adjusted means per country
- Belgium: 56.4 (11.0)
- UK: 46.9 (13.9)
- Germany: 37.4 (10.5)
- Poland: 30.9 (11.8)
- Italy: 18.9 (10.4)

Giacco et al., in preparation
Predictors across all countries

Social disadvantage
+ homeless
+ receiving benefits
+ no contacts with friends in the last week

Clinical severity
+ higher score on Clinical Global Impression Scale
+ psychotic disorder
+ substance use disorder
+ history of admissions
+ involuntary legal status
## Legal status

<table>
<thead>
<tr>
<th>Legal Status</th>
<th>Total Sample</th>
<th>Belgium</th>
<th>Germany</th>
<th>Italy</th>
<th>Poland</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involuntary</td>
<td>55.4 (15.9)</td>
<td>64.7 (9.4)</td>
<td>40.7 (9.2)</td>
<td>25.3 (9.5)</td>
<td>36.9 (9.6)</td>
<td>60.2 (12.0)</td>
</tr>
<tr>
<td>Voluntary</td>
<td>34.3 (15.1)</td>
<td>54.4 (11.0)</td>
<td>37.2 (9.9)</td>
<td>18.1 (9.9)</td>
<td>30.2 (11.1)</td>
<td>37.2 (11.9)</td>
</tr>
</tbody>
</table>
## Homelessness

<table>
<thead>
<tr>
<th></th>
<th>Total sample</th>
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<th>Germany</th>
<th>Italy</th>
<th>Poland</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Homeless</strong></td>
<td>54.2 (22.6)</td>
<td>92.7 (9.1)</td>
<td>31.8 (10.1)</td>
<td>23.6 (14.4)</td>
<td>30.8 (9.9)</td>
<td>54.9 (15.0)</td>
</tr>
<tr>
<td><strong>Not homeless</strong></td>
<td>38.1 (16.4)</td>
<td>54.4 (10.5)</td>
<td>37.5 (10.1)</td>
<td>18.9 (10.3)</td>
<td>30.8 (11.7)</td>
<td>46.2 (13.6)</td>
</tr>
</tbody>
</table>
Conclusions

- Patient responses are relatively similar
- System responses vary highly
Need for data from different countries

• Penrose hypothesis
• Are changes in bed numbers and prison population associated?
• Co-integration analyses in one country
• Analyses of changes in different countries

Europe: Prison Population

Number per 100,000 population from 1992-2010

Chow & Priebe, BMJ Open, 2016
South America: Psychiatric Beds

- Argentina (blue)
- Bolivia (black)
- Brazil (green)
- Chile (red)
- Paraguay (purple)
- Uruguay (yellow)

Mundt et al., JAMA Psychiatry, 2015
Findings

• Significant associations between reduction of bed numbers and increase of prison populations in Europe and South America
• When adjusting for macro-economic factors:
  - association in Europe is not significant anymore
  - association in South America remains significant

Mundt et al., JAMA Psychiatry, 2015; Chow & Priebe, BMJ Open, 2016
How can we learn from each other?

• Understanding other systems
• Working in other countries
• Avoiding simple appraisals
• Widening options
Role of data and research

- Limited
- Better concepts, better methodologies and better data required
- Quasi-experimental studies
- Quantitative and qualitative comparisons
- Global mental health
- Increasing importance