To Rapid Evidence Assess or systematic review? An example using persistent and prolific offenders

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8th International Campbell Colloquium, May 12-14th, Vancouver, Canada.
Acknowledgements

- Mark Newman & Jennifer Sinclair – EPPI Centre, Social Science Research Unit, The University of London.

- Roger Bowles, Mathew Johnson, Glyn Hallam – Centre for Criminal Justice Economics & Psychology, The University of York.

- Dave Fox – Centre for Reviews and Dissemination, The University of York.

- Ministry of Justice grant SRG/06/001
What follows

- Rapid Evidence Assessment vs. Systematic Review
- An example using persistent and prolific offenders
- Implications
Rapid Evidence Assessment (REA)

- Rapid Evidence of Assessment
- A tool for policy making (www.gsr.gov.uk)
- Assessment of the available evidence in six months or less.
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<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tr>
<td>Quick synthesis of available evidence meet policy and research needs</td>
<td>Shortening the systematic review risks introducing bias</td>
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<td>Uses systematic review methods so is transparent, rigorous and replicable</td>
<td>Acknowledgement bias important so that judgements can be made about the reliability of the REA</td>
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<td>Can be used to answer a range of policy questions</td>
<td>Danger of reaching inconclusive findings</td>
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<td>Enables accumulative body of evidence developed over time</td>
<td>Not full coverage of all available literature</td>
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<td>Can form the basis of a more detailed full systematic review</td>
<td>May draw conclusions that miss large amounts of evidence</td>
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Why Systematic reviews?

- A tool for policy making
- Take between one and two years to conduct
- Includes ALL available literature
- Reduces publication bias
- Objective and transparent assessment
An example: An REA of interventions for persistent and prolific offenders

- Defining the population
- Varying definitions
- Account for large proportion of crimes

Wolfgang et al (1972) Delinquency in a persistent offender cohort
Hagell & Newburn (1994) Persistent young offenders
The methodology: REA

- Literature searches
  - (articles between 1995-2007, 7 databases searched)
- Pre-screening (four reviewers)
- Development of inclusion/exclusion criteria
- Data extraction and synthesis
- Timetable for the project
The methodology: REA

What was not included:

- Studies containing less than 100 participants
  (Farrington, 2006, Journal of Experimental Criminology, 2, 121-141.)

- Grey literature (specific databases) – risk of publication bias
- Government/policy reports – risk of publication bias
- Double data extraction of all studies
- Studies ordered but not obtained by end of study period (n=112)
### The findings: Systematic review

<table>
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<tr>
<th>Included items</th>
<th>Number of additional potential papers</th>
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<tr>
<td>Studies containing less than 100 participants</td>
<td>11</td>
</tr>
<tr>
<td>Grey literature sources (Index of Theses &amp; ZETOC)</td>
<td>133</td>
</tr>
<tr>
<td>Government websites (Home Office, Corrections services of Canada, NCJRS, National Institute of Justice)</td>
<td>10</td>
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The evidence of publication bias....

- **Stern & Simes (1997)**
  - Reviewed 748 eligible studies – 10 year period
  - Those with positive results much more likely to be published
  - Significantly shorter time to publication (4.8 years vs. 8.0 years)

- **Wilson, (2008)**
  - Reviewed Campbell Crime and Justice Systematic Reviews
  - Approx half of all literature included in the systematic reviews was grey literature.


Double data extraction vs. single?

Bushcemi et al. (2006), Journal of Clinical Epidemiology, 59 (7), 697-703.

• Single data extraction resulted in more errors than double data extraction (21.7%, p=0.019)
• Average time (36%, p=0.003)


• 27 meta analyses, 63% contained errors
Conclusions and Implications

- REA or Systematic Review?
- Depends upon the subject matter?
- The importance of reducing bias
- Being specific about the research question
Conclusions and Implications

- Caveats of caution for REAs
- Expectations of policy makers
- Present the degree of certainty about the available evidence
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