REDUCING REOFFENDING: WHAT WORKS?
RAPID EVIDENCE ASSESSMENT PROTOCOL

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CORRESPONDING AUTHOR

All enquiries about this protocol should be directed to:

Andrew Smith
Research Associate
a.smith@mmu.ac.uk

Policy Research and Evaluation Unit
Manchester Metropolitan University
Geoffrey Manton Building
Rosamond St West
Manchester
M15 6LL
AIM OF THE REVIEWS

The ‘Reducing Reoffending: What Works?’ Rapid Evidence Assessments synthesise empirical evidence about the effectiveness of specific interventions on reducing levels of reoffending. Rapid Evidence Assessments (REAs) are a form of systematic review, and are undertaken over a shorter period than a traditional systematic review (approximately 3 months, rather than 12 months). REAs and systematic reviews systematically search for, evaluate and synthesise evidence about a specific intervention, and they are used to help policy makers to understand the impact of an intervention. Where possible an REA or systematic review will include a statistical meta-analysis of individual studies, in order to provide a clear indication of the likely impact (effect size) of the intervention.

METHODS

CRITERIA FOR CONSIDERING STUDIES

TYPES OF STUDY DESIGNS

The selection of studies is limited to impact evaluations that adopt experimental and quasi-experimental designs, and studies using unmatched comparison groups. Studies with these research designs correspond to levels 3 to 5 on the Maryland Scientific Methods Scale (Sherman et al., 1997) adapted for reconviction studies (Friendship et al., 2005: 7). The rationale for including Level 3 studies is the anticipated shortage of evaluations with methodologically rigorous designs across different topics.

Table 1: Maryland Scientific Methods Scale adapted for reconviction studies

<table>
<thead>
<tr>
<th>Standard</th>
<th>Comparison</th>
<th>Description</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>No comparison</td>
<td>Recidivism rate is reported for intervention group only</td>
<td>Before and after study</td>
</tr>
<tr>
<td>Level 2</td>
<td>Comparison with predicted rate</td>
<td>Actual and expected recidivism rates of intervention group are compared</td>
<td>Expected recidivism rates generated by Offender Group Reconviction Scale (OGRS)</td>
</tr>
<tr>
<td>Level 3</td>
<td>Unmatched comparison group</td>
<td>Recidivism rate of intervention group is compared with recidivism rate of an unmatched comparison group</td>
<td>Comparison of mean levels of recidivism</td>
</tr>
<tr>
<td>Level 4</td>
<td>Well-matched comparison group</td>
<td>Recidivism rate of intervention group is compared with recidivism rate of a comparison group matched on static (and dynamic) risk factors e.g. criminal history, gender</td>
<td>Propensity score matching; regression discontinuity</td>
</tr>
<tr>
<td>Level 5</td>
<td>Randomised control trial (RCT)</td>
<td>Recidivism rates are compared between intervention and control groups that have been created through random assignment</td>
<td>Randomisation</td>
</tr>
</tbody>
</table>
TYPES OF PARTICIPANT

Only studies involving participants who are offenders or in the care of criminal justice systems are included. Since offenders in England and Wales under the age of 18 are in the care of youth offending services, only participants aged 18 and above are included.

TYPES OF INTERVENTIONS

Only studies that test the effect of the specific intervention concerned (i.e. probation supervision; domestic violence interventions) on levels of reoffending are eligible for review.

TYPES OF OUTCOME MEASURE

The primary outcome measures of interest are measures of reoffending such as arrests, convictions (binary, frequency, severity), or breaches of condition. Secondary intermediate outcomes (e.g. offender instrumental or psychological changes) are also reported where appropriate.

SETTINGS AND TIMEFRAME

Studies published in English after 2006 in the UK and other OECD countries are eligible for inclusion in the reviews.

SEARCH STRATEGY

A 4-step search strategy using search keywords (Appendix A) is adopted to identify studies: electronic databases are searched for published studies; governmental and organisational websites are searched for grey literature; appropriate journals are hand searched; and reference lists from systematic reviews and meta-analyses are checked for additional, relevant studies.

The following electronic databases are searched:

1. ASSIA (Applied Social Sciences Index and Abstracts)
2. Criminal Justice Database
3. ERIC (Education Resources Information Center)
4. PsycINFO
5. PsycARTICLES
6. Scopus
7. Sociological Abstracts
8. Web of Science
Several governmental agencies and organisations associated with criminal justice research are searched for reports and other grey literature.

1. UK Ministry of Justice
2. College of Policing
3. The Scottish Government
4. Correctional Services Canada
5. Australian Institute of Criminology
6. US National Institute of Corrections
7. Vera Institute for Justice
8. Washington State Institute for Public Policy

The Probation Journal is hand searched for relevant articles between 2007 and 2018.

**SELECTION OF STUDIES**

All studies that have been retrieved through the search process are imported into Covidence, a specialist tool for screening records for inclusion in reviews. Covidence is used to remove duplicates at the point of importation. The titles and abstracts of retrieved studies are screened independently by two reviewers, to identify studies that meet the exclusion criteria (Appendix B). Citations are screened by one reviewer and a second reviewer screens a proportion (20%) at random. Covidence facilitates the logging of disagreements between reviewers so that they may be resolved through discussion and the involvement of a third reviewer if necessary.

The full text of studies which have not been excluded is then further screened.

**ASSESSMENT OF METHODOLOGICAL QUALITY**

Eligible randomised studies are assessed for risk of bias using the Cochrane Risk of Bias tool, and non-randomised studies using the ROBINS-I tool. See Appendix C for assessing risk of bias process flowchart.

**DATA EXTRACTION**

The following information is extracted from the full texts of eligible studies:

- Study details (first author; year of publication; published/unpublished)
- Research design (study design; comparison group construction; sample size)
- PICOTS (population, intervention; comparator; outcome; timing; setting)
- Results (effect type; effect size; 95% CI)
• Risk of Bias or ROBINS-I criteria (e.g. random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting, other bias)
• Financial costs and benefits

SYNTHESIS

Where estimates of effect are available, a meta-analysis is conducted. Studies are assessed for levels of heterogeneity to determine whether to use a fixed or random effects model in the meta-analysis. The results of studies with experimental and quasi-experimental designs is pooled with odds ratios reported for binary outcomes. Meta-analysis is undertake and forest plots created using the `metafor` package in R (Viechtbauer, 2010).

If there is significant heterogeneity between primary outcomes in the eligible studies or evidence quality is weak in the majority of studies (i.e. Level 3 on the adapted Maryland Scientific Methods Scale), a narrative synthesis is produced rather than statistical meta-analysis.

REPORTING

A full journal article is produced with an accompanying short plain English summary. The results of the study selection process are presented in a flow chart using the format suggested in the PRISMA statement (Moher et al. 2009; see Appendix D).

Short plain English summaries are published on the Reducing Reoffending website. GRADE (Grading of Recommendations Assessment, Development and Evaluation) is used to evaluate the quality of the body of evidence that has been synthesised (Guyatt et al., 2008), so ratings of evidence quality may be indicated on the website.
REFERENCES


### APPENDIX A: Search keywords

The following keyword search example indicates a structure which can be adapted to suit the intervention under review:

<table>
<thead>
<tr>
<th>Participant</th>
<th>Intervention</th>
<th>Outcomes</th>
<th>Study design</th>
</tr>
</thead>
<tbody>
<tr>
<td>offender*</td>
<td>probation*</td>
<td>re-offen*</td>
<td>evaluation</td>
</tr>
<tr>
<td>probationer*</td>
<td>supervision*</td>
<td>reoffen*</td>
<td>experiment</td>
</tr>
<tr>
<td>licensee*</td>
<td>parole</td>
<td>recidiv*</td>
<td>trial</td>
</tr>
<tr>
<td>“service user*”</td>
<td></td>
<td><em>arrest</em></td>
<td>impact</td>
</tr>
<tr>
<td>client*</td>
<td></td>
<td><em>convict</em></td>
<td>effect*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>re-incarceration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>reincarceration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>“return to custody”</td>
<td></td>
</tr>
</tbody>
</table>

Combing words from the different categories creates the following search string:

```plaintext
((offender* OR probationer* OR licensee* OR "service user*" OR client*) AND (probation* OR supervision* OR parole) AND (re-offen* OR reoffen* OR recidiv* OR re-arrest* OR rearrest* OR re-convict* OR reconvict* OR re-incarceration OR incarceration OR "return to custody") AND (evaluation OR experiment OR trial OR impact OR effect*))
```

The search string can be adapted to meet the search requirements of individual search engines.
APPENDIX B: Exclusion Criteria

The following example exclusion criteria are adapted to suit the intervention under review.

**Language:** is not English.

**Year of publication:** is before 2007.

**Peer reviewed:** No (also exclude if a dissertation, a book, an article from a trade journal or a book review).

**Reporting evaluation:** Does not report an evaluation of an intervention.

**Subjects:** Subjects were not offenders or in the care of the Criminal Justice System.

**Age of participants:** Participants were aged below 18 years (studies with overlapping ages should be included).

**Group work intervention:** Intervention involved group work with offenders.

**Restorative justice intervention:**

**Sex offender intervention:** Intervention specifically targeted sex offenders.

**Substance misuse intervention:** Intervention targeted offenders with substance misuse needs only.

**Mental health intervention:** Intervention targeted offenders with mental health needs only.

**Systematic review / meta-analysis:** Article is a systematic review or meta-analysis.

**Measure:** Study did not include a measure of reoffending.

**Study design:** Study design did not include a control or comparison group (i.e. was Level 1 or 2 on the adapted Maryland Scientific Methods Scale).

**Sample size:** Contains less than 50 participants in the total sample.
APPENDIX C: RISK OF BIAS PROCESS FLOWCHART

Cochrane Risk of Bias
- Sequence generation
- Allocation concealment
- Blinding of participants and personnel
- Blinding of outcome assessors
- Incomplete outcome data
- Selective outcome reporting
- Other sources of bias

ROBINS-I
- Confounding
- Selection of participants into the study
- Classification of interventions
- Deviations from intended interventions
- Missing data
- Measurement of outcomes
- Selection of the reported result

Risk of bias in individual studies
- Study 1 (Non-randomised)
- Study 2 (Randomised)
- Study 3 (Randomised)
- Study 4 (Non-randomised)

Overall risk judgement
- Low risk
- Moderate risk
- Serious risk
- Critical risk

GRADEing individual studies
- Step 1: rank
  - HIGH: RCT and low risk NRSI
  - LOW: high risk NRSI
- Step 2: downgrade / upgrade
  - Downgrade:
    - Risk of bias
    - Inconsistency
    - Indirectness
    - Imprecision
    - Publication bias
  - Upgrade:
    - Large consistent effect
    - Dose response
    - Confounders only reducing size of effect

GRADEing the body of evidence
- Step 3: assign final grade
  - High quality
  - Moderate quality
  - Low quality
  - Very Low quality

Step 4: Summary of Findings table
- PICQ:
  - P: Participants and studies
  - I: Interventions
  - C: Comparators
  - Q: Quality of evidence
- Results:
  - Absolute effects
  - Relative effects
  - Quality of the evidence
  - Comments and footnotes
# records identified through database searching
ASSIA:
Criminal Justice Database:
ERIC:
PsycARTICLES:
PsycINFO:
Scopus:
Sociological Abstracts:
Web of Science:

# records identified through other sources

# records after duplicates removed

# records screened on title and abstract

# full-text articles assessed for eligibility

# full-text articles excluded:
# no control or comparison group
# no criminal justice outcome measure

# studies included in quantitative synthesis (meta-analysis)