Factors predicting attrition from prison-based intensive psychosocial drug treatment
Eli Grant, Sean Grant, Paul Montgomery

To start a Campbell review, a title must be registered and approved by the appropriate Campbell review group. For information about the title registration and protocol and review steps, visit the Campbell website:
http://www.campbellcollaboration.org/systematic_reviews/index.php

Submitted to the Coordinating Group of:
X Crime and Justice
___ Education
___ Social Welfare
___ Other

Plans to co-register:
X No
___ Yes ___ Cochrane ___ Other
___ Maybe

Instruction: Briefly address each item below. Provide enough precise information to allow us the ability to evaluate the scope of the review and its appropriateness for the Campbell Collaboration. Note the review proposal should not overlap with existing Campbell and Cochrane published reviews or registered reviews in progress.
TITLE OF THE REVIEW

Factors predicting attrition from prison-based intensive psychosocial drug treatment

BACKGROUND

The Problem

Drug use and crime are strongly associated. Randomised controlled trials and meta-analyses have demonstrated that intensive, psychosocial drug treatment interventions delivered in prison settings are effective in reducing post-prison offending and drug use (Mitchell, Wilson, & MacKenzie, 2006; Smith, Gates, & Foxcroft, 2006; Wexler, Melnick, Lowe, & Peters, 1999). Despite recent increases in investment in prison-based treatment across jurisdictions, substantial discrepancies remain between the number of prisoners in need of drug treatment and the number of treatment spaces available (Butzin, Martin, & Inciardi, 2005; Prendergast, 2011; UKDPC, 2007). Furthermore, there is substantial variability in prisoners’ responses to treatment: a large portion of those who enter intensive psychosocial programmes drop out or are removed before completing (Pelissier, Camp, & Motivans, 2003).

Attrition from prison-based drug programs reduces clinical and cost-effectiveness. Prisoners who do not complete treatment programmes experience poorer post-treatment outcomes (Gossop, Marsden, Stewart, & Rolfe, 1999; Gossop, Trakada, Stewart, & Witton, 2005; Hiller, Knight, & Simpson, 1999; McMurran & Theodosi, 2007). In addition to a well-established dose-response relationship between treatment tenure and post-prison improvements, minimum ‘threshold’ periods required for treatment effects and cost-effectiveness have also been identified (Simpson et al., 1997)—specifically, at least thirty days of treatment retention are needed for any measurable improvement in drug use or reoffending and at least ninety days for improvements to be large enough for such programmes to be cost-effective (French, Fang, & Fretz, 2010; Griffith, Hiller, Knight, & Simpson, 1999; Malivert, Fatsés, Denis, Langlois, & Auriacombe, 2012; Welsh, 2010; Zhang, Friedmann, & Gerstein, 2003).

A large number of pre-treatment factors potentially underlie differences in participant response and successful treatment engagement. There is now a substantial body of research concerning which of these factors comprise useful predictors of attrition. Narrative reviews of this literature have generally concluded that pre-treatment factors do not consistently predict retention (Meier & Best, 2006; Simpson, 2004). However, these have not examined the extent to which differences in findings relate to differences between studies in terms of the treatment model, implementation, setting, population, analytical methods, retention measures and model specifications used. A comprehensive, systematic appraisal of primary studies is needed to identify robust predictors of retention in prison-based, psychosocial drug treatment.
This review aims to systematically investigate, summarise and—if possible—synthesize findings from retention analyses of prison-based psychosocial drug treatment. The use of systematic review methods and meta-analyses will contribute to the retention literature by:

1. enabling more precise estimates of the magnitude and reliability of relationships between repeatedly tested pre-treatment predictors and retention outcomes
2. determining the extent to which methodological, clinical and contextual variations impact the magnitude and significance of relationships between pre-treatment variables and retention outcomes
3. using explicit inclusion, exclusion, coding and appraisal decisions in order to allow replication and updating as additional studies are completed, thereby reducing (and making transparent) the effects of any potential theoretical or personal unconscious bias on the part of the reviewer

The Population

The population of interest is the adult prison population in any jurisdiction. Adult prisoners are defined as individuals of either gender who are over the age of eighteen and held in secure correctional settings, whether sentenced or awaiting trial. In order to be included, participants need to have participated in the intervention (defined below).

As research suggests that most prisoners have one or more mental health disorders (Dressing, Kief, & Salize, 2009), samples that include individuals with co-morbid mental health diagnoses or symptoms will therefore be included. Sex offenders, individuals legally mandated to mental institutions, diagnosed psychopaths and juvenile prisoners are all considered clinically distinct subgroups that are physically segregated from the general prison population (Olver, Stockdale, & Wormith, 2011). These groups of prisoners are also generally offered different treatment programmes (Johnson et al., 2004; Looman & Abracen, 2011). Where these groups comprise over 10% of a study’s sample, the study will be excluded unless it reports results separately for those prisoners in the review’s target population.

The Intervention

Several models of psychosocial drug treatment are defined by theoretical orientation (e.g. Therapeutic Communities, Twelve-Step and Cognitive-Behavioural programmes). Programmes based on the same theoretical model frequently vary in terms of duration, intensity and method of delivery. These categories are also problematic because the majority of prison-based psychosocial interventions adapt and/or combine multiple treatment models (so-called “eclectic” programmes) (Wexler & Prendergast, 2010). As a result, categories of treatment model have limited utility in defining and distinguishing between different interventions.

This review therefore defines the intervention of interest in terms of its core components
rather than its theoretical model or programme label. Specifically, the intervention is defined as any prison-based treatment programme that:

- Has the primary aim of reducing substance abuse
- Targets substance users
- Is delivered in a correctional facility
- Uses an abstinence-based approach to drug treatment
- Requires prisoners to live in the treatment unit
- Has an expected duration of at least three months
- Requires daily participation in treatment activities
- Delivers group-based psychosocial treatment

**Variations of the intervention:** The review thus includes Therapeutic Community, Twelve-Step, Cognitive Behavioural, Motivational Enhancement and eclectic or otherwise adapted drug treatment programmes provided they include the core components listed above. Interventions that include pharmacotherapeutic components as part of their treatment model (e.g., methadone maintenance) will be excluded. Brief (under three months), non-intensive (non-daily participation) and non-group based psychosocial interventions will also be excluded, as reasons for attrition from such different treatment modalities may differ substantially.

**Setting:** Based on the criteria used in a previous Campbell Review of incarceration-based drug treatment (Mitchell et al., 2006), “correctional facilities” are defined as jails and prisons and exclude community-based residential facilities, half-way houses, open prisons or other non-secure facilities. Prison-diversion treatment units are included if they are secure facilities but excluded if they operate under open conditions and/or accept any participants who would not otherwise be incarcerated.

**Comparison:** Because of the nature of the question, there is no comparison condition. Comparisons will be made between completers and non-completers taking part in the same interventions.

**Outcomes: What are the intended effects of the intervention?**

The primary outcome is retention, as measured in terms of treatment tenure (e.g., days/weeks/months of treatment completed); completion (e.g., programme completed or not completed); or completion of treatment thresholds (e.g. 30 or 90 days of treatment).

There are no secondary outcomes.
OBJECTIVES

To systematically review, summarise and synthesise findings from analyses of participant-level and programme-level predictors of attrition from intensive residential drug treatment programmes delivered in prison settings.

METHODOLOGY

Inclusion Criteria

Studies reporting quantitative data that can identify participant and/or programme-level predictors of attrition will be included. Both published and unpublished studies will be searched for and eligible for inclusion.

Specifically, studies will be included if they:

1. Use a sample composed primarily of participants from the population described above: adult prisoners of either gender who participated in the target intervention (as defined above) while in prison or sentenced to a secure prison-diversion setting;

2. Collected quantitative measures of participant or programme characteristics before treatment, with information on the reliability and validity for any constructed measures;

3. Collected quantitative measures of retention: either programme completion or time in treatment (measured in days or by retention past ‘threshold’ time periods);

4. Report sufficient data for analysing bivariate or multivariate associations between pre-treatment variables and retention outcomes.

Studies’ methodological quality will be appraised using explicit checklists designed to appraise observational studies. Studies that meet inclusion criteria but are of poor methodological quality will not be excluded from the review but may be excluded from any meta-analyses or subjected to sensitivity analysis.

Exclusion Criteria:

Studies that report only qualitative data, do not meet methodological standards, and/or provide insufficient data for analysing associations between pre-treatment variables and retention outcomes will be excluded.

Your method of synthesis

Meta-analyses will be used if a sufficient number of studies are identified whose model specifications and methodological quality allow for synthesis. Effect sizes for individual
predictor variables will be compared using the Fisher z-transformation of the correlation coefficient to standardise across studies. However, we anticipate that different studies may specify models differently, resulting in a number of complex issues in quantitative synthesis. We are consulting with specialist statisticians to determine for the protocol what the most appropriate measures and/or meta-analytic techniques would be.
REFERENCES


REVIEW AUTHORS

Lead reviewer:

Name: Eli Grant
Title: Ms.
Affiliation: Centre for Evidence Based Intervention and Nuffield College, University of Oxford
Address: Nuffield College, New Road
City: Oxford
Postal Code: OX1 1NF
Country: United Kingdom
Phone: +44 (0) 1865 280325
Email: elizabeth.grant@nuffield.ox.ac.uk

Co-authors:

Name: Sean Grant
Title: Mr.
Affiliation: Centre for Evidence Based Intervention, University of Oxford
Address: Barnett House, Wellington Square
City: Oxford
Postal Code: OX1 2ER
Country: United Kingdom
Phone: +44 (0) 1865 280325
Email: sean.grant@spi.ox.ac.uk

Name: Paul Montgomery
Title: Professor
Affiliation: Centre for Evidence Based Intervention, University of Oxford
Address: Barnett House, Wellington Square
City: Oxford
Postal Code: OX1 2ER
Country: United Kingdom
Phone: +44 (0) 1865 280325
Email: paul.montgomery@spi.ox.ac.uk

ROLES AND RESPONSIBILITIES

Please give brief description of content and methodological expertise within the review team. The recommended optimal review team composition includes at least one person on the review team who has content expertise, at least one person who has methodological expertise
and at least one person who has statistical expertise. It is also recommended to have one person with information retrieval expertise.

Who is responsible for the below areas? Please list their names:

- **Content:** Eli Grant, Sean Grant, Paul Montgomery
- **Systematic review methods:** Eli Grant, Sean Grant, Paul Montgomery
- **Statistical analysis:** Eli Grant, Sean Grant
- **Information retrieval:** Eli Grant, Sean Grant

### POTENTIAL CONFLICTS OF INTEREST

None declared.

### FUNDING

**Internal Funding**

Nuffield College, University of Oxford

**External Funding**

Economic and Social Research Council

### REQUEST SUPPORT

Support for database searches is requested. Statistical support may be needed at a later stage for dealing with the aforementioned issues in quantitative synthesis.

### PRELIMINARY TIMEFRAME

Approximate date for submission of Draft Protocol (please note this should be no longer than six months after title approval. If the protocol is not submitted by then, the review area may be opened up for other reviewers): **1 April 2013**.