Treating offenders with mental illness: a research synthesis
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CRD summary
The authors concluded that interventions for offenders with mental illness reduced symptoms of distress and improved coping skills, institutional adjustment and behavioural functioning. The authors' conclusions should be considered as tentative due to the possibility of language bias, the lack of study and quality details, and uncertainty around the decision to combine such varied studies for statistical analysis.

Authors' objectives
To examine the effectiveness of treatment interventions for offenders with mental illness.

Searching
PsycINFO, MEDLINE and Social Science Abstracts databases were searched for studies published in English. Search terms were reported but not search dates. Unpublished documents, relevant journals and government reports related to treatment efforts with offenders with mental illness were also searched. Reference lists from previous reviews were screened.

Study selection
Controlled or pre-post test studies that evaluated an intervention provided in a criminal justice setting were included in the review. Participants who suffered from a major Diagnostic and Statistical Manual Axis I disorder (delirium, dementia, amnestic and other cognitive disorders; schizophrenia and other psychotic disorders; mood disorders; and/or anxiety disorders) were eligible for inclusion.

Included interventions involved medication, psychosocial, psycho-educational and others which were not specified. The average age of participants in treatment groups was 32.3 years. The duration of the intervention period ranged from 1.5 weeks to 78 weeks. The reported outcomes included mental health symptoms, coping, institutional adjustment, behavioural functioning, criminal recidivism (relapse), psychiatric recidivism, treatment-related factors, and financial benefit. Participants had schizophrenia, mood disorders or multiple Axis I disorders. Where symptom severity was reported, it was universally rated as moderate or severe. Included studies were published from 1987 to 2003.

Four trained research assistants assessed the titles and abstracts; the lead reviewer performed the final study selection.

Assessment of study quality
The authors used a portion of Maryland Scale of Scientific Rigor ratings to assess the strength of the evidence of the studies. No further information on the criteria was reported.

Three reviewers were involved in quality assessment.

Data extraction
Data were extracted to calculate effect sizes from: significance tests; pre-post test means and standard deviations of treatment and control groups; and pre-test/post-test proportions of successful and unsuccessful outcomes for treatment and control groups.

Where studies with did not have a control group, effect sizes were calculated as standardised mean gain scores. Where studies had control arms, effect sizes were calculated using the mean gain score from the treatment group only. This allowed comparability between the effect sizes.

Three reviewers were involved in data extraction. Any disagreements were resolved by discussion to reach consensus.

Methods of synthesis
Outcomes were grouped by eight general categories (mental health symptoms, coping, institutional adjustment, behavioural functioning, criminal recidivism, psychiatric recidivism, treatment-related factors and financial benefit).
due to variations between the studies. Mean effect sizes (ES) for each outcome, with 95% confidence intervals (CIs), were combined in a random-effects meta-analysis. Effect size was expressed as standardised mean difference (Cohen's $d$), where values around 0.2 were rated as small, 0.5 as medium, and 0.8 or above as large.

Publication bias was assessed using Orwin's fail-safe $N$ approach, which was calculated to determine the number of studies which would have been required to produce a non-significant overall effect size.

**Results of the review**

Twenty-six studies (1,649 participants, range 5 to 150) were included in the review. According to quality assessment, only five out of 26 studies were of good quality.

**General mental health outcomes** (15 studies): Interventions for offenders with mental illness statistically significantly improved general mental health outcomes (mean ES 0.87, 95% CI 0.64 to 1.11). The removal of one outlier study did not dramatically alter this result.

**Coping outcomes** (six studies): Interventions for offenders with mental illness statistically significantly improved coping outcomes (mean ES 1.32, 95% CI 0.56 to 2.07). The removal of one outlier study did not dramatically change this result.

**Institutional adjustment outcomes** (six studies): Interventions for offenders with mental illness statistically significantly improved institutional adjustment outcomes; the effect was moderate in size (mean ES 0.57, 95% CI 0.34 to 0.80).

**Behavioural functioning outcomes** (four studies): Interventions for offenders with mental illness statistically significantly improved behavioural functioning; the effect was moderate to strong in size (mean ES 0.78, 95% CI 0.23 to 1.32).

Further results were reported in the paper including analyses on the most effective intervention components.

**Authors' conclusions**

The interventions for offenders with mental illness reduced symptoms of distress, improved their ability to cope with problems, and improved institutional adjustment and behavioural functioning.

**CRD commentary**

The review addressed a clear question and was supported by broad inclusion criteria. Searches included several relevant sources and databases, although only studies published in English were eligible. Publication bias seemed unlikely, but language bias may have influenced this review. Three reviewers were involved in study selection, data extraction and quality assessment, which reduced the possibility of error and bias.

There was no information on the quality criteria assessed, which made it difficult to judge the appropriateness of the assessment. It appeared that studies with different research designs and different comparators were pooled, which may not have been appropriate. Limited study details and levels of heterogeneity were not reported, which made it difficult to determine whether combining these studies was appropriate. The interventions were very varied and had limited description of their content.

The authors' conclusions should be considered as tentative due to the possibility of language bias, lack of reported study and quality details, and uncertainty around the decision to pool such varied studies.

**Implications of the review for practice and research**

**Practice:** The authors stated that psychologists and other mental health professionals needed to offer more comprehensive treatments to offenders with mental illness and should evaluate the effectiveness of these treatments.

**Research:** The authors stated that randomised controlled trials were needed for the elements of therapeutic programs that were most efficacious for offenders with mental illness.

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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.