The principles of effective correctional treatment also apply to sexual offenders: a meta-analysis

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CRD summary
The authors concluded that treatments based on risk-need-responsivity principles could lower rates of sexual and general recidivism in sex offenders. This was a generally well-conducted review. The authors’ conclusions should be treated with caution due to the weak quality of most of the studies.

Authors’ objectives
To determine if risk-need-responsivity (RNR) principles used for the effective treatment of general offenders can also be applied to the psychological treatment of sexual offenders.

Searching
PsycINFO, Web of Science, Digital Dissertations Online, and NCJRS were searched. The bibliographies of retrieved articles, review articles, and conference programmes were examined for further reports. Search terms were reported; language restrictions were not.

Study selection
Studies were eligible for inclusion if they examined the effectiveness of a correctional treatment by comparing recidivism rates (re-conviction or re-arrest for sexual, violent, or general offences) of treated sexual offenders (adolescents and adults) against control groups (no treatment, alternate treatment, or less treatment). Studies were excluded if they addressed only illegal, but consensual crimes, or did not intend to test treatment effectiveness, or compared the type of supervision only. They were also excluded if their quality did not meet minimum guideline standards (rejected). The majority of studies were recent (median year of publication 2000, range 1980 to 2009) and the majority of participants were male. The treatment programmes were carried out equally within institutions or within the community. Most studies examined specialised treatments for sex offenders.

The authors did not state how many reviewers selected the studies.

Assessment of study quality
Study quality was assessed using the Collaborative Outcome Data Committee (CODC) guidelines. These guidelines contain 20 items assessing administrative control of independent variables, experimenter expectancies, sample size, attrition, equivalency of groups, outcome variables, and correct comparisons conducted. They score studies as strong, good, weak, or rejected.

The adherence of programmes to each principle of RNR was also rated using yes or no for each principle. An overall score between zero and three was given to each study, according to the number of principles that were followed.

Two reviewers independently assessed studies according to the CODC guidelines and rated their adherence to RNR.

Data extraction
Effect sizes and study descriptors were coded using a standardised manual (containing 100 variables). Odds ratios (ORs) and 95% confidence intervals (CIs) were extracted.

Two reviewers, who were blind to the RNR adherence assessment, independently extracted the data. A third reviewer verified the extraction and the RNR ratings. Consensus was reached between the reviewers or by approval of two further reviewers.
Methods of synthesis
Random-effects and fixed-effect meta-analysis were used to pool the ORs and 95% CIs. Heterogeneity was assessed using the Cochran Q test.

Differences between studies were discussed with respect to study quality, level of adherence to the principles of RNR, and treatment start date.

Results of the review
Twenty-three studies (average n=135 participants; range 16 to 2,557) were included in the meta-analysis. These included four randomised controlled trials, seven non-randomised studies with concurrent controls, six "need, volunteer and drop-out" studies and six retrospective cohort studies. Eighteen of these studies received a CODC rating of weak and five were rated as good. Three studies scored zero for RNR adherence, seven scored one, nine scored two, and four scored three. Where reported, in all but one study, the duration of follow-up was seven years or less.

Sexual recidivism: Sex offenders receiving RNR treatment had significantly lower rates of sexual recidivism than untreated comparison groups (fixed-effect OR 0.77, 95% CI 0.65 to 0.91; 22 studies, n=6,746), (random-effects OR 0.66, 95% CI 0.49 to 0.89). There was significant heterogeneity between the studies (Q=47.17, p<0.001). The effectiveness of programmes increased according to the number of principles adhered to; random-effects ORs 1.17 for none, 0.64 for one, 0.63 for two, and 0.21 for three.

Violent recidivism: Violent recidivism rates were not significantly different in the treatment groups compared to controls (10 studies, n=4,823).

General recidivism: General or any recidivism rates were lower in treated groups compared to untreated groups (fixed-effect OR 0.75, 95% CI 0.66 to 0.86; 13 studies, n=4,801), (random-effects OR 0.61, 95% CI 0.47 to 0.80). Significant heterogeneity was found between the studies (Q=29.82, p<0.005). The effectiveness of treatment increased according to how many RNR principles were adhered to (fixed-effect analysis).

Treatment effects were smaller in the good quality studies than in the weak ones. Recent treatments were significantly more effective than earlier treatments for sexual (p<0.001), violent (p<0.0034), and any recidivism (p<0.015) by fixed-effect and by random-effects models.

Authors' conclusions
Sexual offenders receiving treatments based on RNR principles had lower rates of unweighted sexual and general recidivism than comparison groups.

CRD commentary
The review question was clearly stated and supported by clear inclusion criteria. Relevant sources were searched for published and unpublished data. It was unclear whether studies not in English were sought, which may have resulted in the omission of relevant publications; publication bias cannot be ruled out. Appropriate methods were used to assess study validity; the majority of studies were weak. Adequate steps were taken throughout the review process to minimise errors and bias. It may not have been appropriate to pool studies of different designs, but the influence of study quality on the results was examined. Significant heterogeneity existed between the studies, which was further investigated with subgroup analysis to explore possible variables.

This was generally a well-conducted review. The authors conclusions reflected the data presented and they recognised that these should be treated with caution due to the weak quality of the studies.

Implications of the review for practice and research
Practice: The authors stated that RNR principles should be given primary consideration in the design and implementation of intervention programmes for sexual offenders. In particular, attention to the "need" principle would motivate the greatest changes to current interventions.
Research: The authors stated that further research was needed to identify the most important treatment targets for sexual offenders and to understand the processes by which these offenders change. In addition, the authors argued that random assignment studies were possible for this treatment group and were required to strengthen the study designs.

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