Meta-analysis of treatment for child sexual behavior problems: practice elements and outcomes
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CRD summary
This review concluded that the overall degree of change over the course of various treatments was estimated at a decline of 0.46 to 0.49 standard deviation in child patients' sexual behaviour problems and general behaviour problems. It was difficult to judge the reliability of the authors' conclusions given the lack of details on study quality and other methodological concerns.

Authors' objectives
To assess the effectiveness of treatments for children with sexual behaviour problems.

Searching
MEDLINE, PsycINFO, ERIC, Current contents, Education abstracts, Familia, Family and Society Studies Worldwide, Francis, Psychology and Behavioural Sciences Collection, Science Direct, Social Services Abstracts, Social Work Abstracts and Sociological Abstracts databases were searched without date limits for published studies in French or English. Reference lists of relevant publications were screened. Experts and researchers were contacted.

Study selection
Studies that evaluated treatments of sexual behaviour problems either as a primary or secondary target in child outpatients were eligible for inclusion. Most patients needed to be 12 years or younger. Studies that evaluated treatment outcomes using pre-post measures were included. Eligible studies had to report either pre and post means or mean difference, and standard deviations, for a measure of sexual behaviour problems. The primary outcome was change in scores from Child Sexual Behaviour Inventory. The secondary outcome assessed was change in scores from Child Behaviour Checklist.

Included studies evaluated various treatments, which included: cognitive behavioural therapy; play therapy; client-centred therapy; sexual abuse specific cognitive behavioural therapy; supportive therapy; relapse prevention therapy; and expressive therapy. Included patients received either a group treatment or an individual treatment. Most of the included studies had 100% sexually abused children. The proportion of males in included studies ranged from 11% to 100%. Ages of included children ranged from two to 16 years.

The authors did not state how many reviewers assessed studies for inclusion.

Assessment of study quality
The authors did not state they assessed study quality.

Data extraction
Pre and post means and standard deviations were extracted to enable calculation of effect sizes.

The authors did not state how many reviewers performed data extraction.

Methods of synthesis
Studies were combined in a meta-analysis using a mixed linear model. Pooled effect sizes with 95% confidence intervals were calculated. Separate analyses were performed on the basis of different outcome measures (Child Sexual Behaviour Inventory-Total and Child Behaviour Checklist-Total). Statistical heterogeneity was assessed using $X^2$ statistic. Regression models were used to examine the impact of a number of treatment characteristics on effect size variability.
Results of the review
Eleven studies that detailed 18 treatments (seven randomised controlled trials and four pre-post design studies) were included in meta-analyses (n=1,081). Included studies generally had a short-term follow-up (lengths of follow-up were not reported).

For Child Sexual Behaviour Inventory-Total, the pooled effect size of 18 treatments for sexual behaviour problems was estimated at 0.46 (95% CI 0.34 to 0.58).

For the Child Behaviour Checklist-Total, the pooled effect size of 16 treatments for sexual behaviour problems was estimated at 0.49 (95% CI 0.35 to 0.63). No significant heterogeneity was observed.

Regression analyses showed that the following factors had a significant impact on treatment effects: family involvement, pre-school age group, a child practice element (self-control skills), and four parent practice elements (parenting/behaviour management skills, rules about sexual behaviour, sex education and abuse prevention skills).

Authors’ conclusions
The overall degree of change over the course of various treatments was estimated at a decline of 0.46 to 0.49 standard deviation in child patients’ sexual behaviour problems and general behaviour problems. Parenting/behaviour management skills and preschool age group strongly predicted the treatment effect.

CRD commentary
The inclusion criteria were clear. A number of relevant sources were searched, but the decision to include only published studies increased potential for publication bias. Language restrictions were applied in the search, which increased the risk of language bias. It was unclear whether sufficient attempts were made to minimise the errors and biases in the review process. Although the authors discussed some aspects on study quality, no formal validity assessment was performed. Appropriate methods were used to pool the results. Statistical heterogeneity was assessed. Without further details on study quality and given other methodological concerns as outlined above, it is difficult to judge the reliability of the authors’ conclusions.

Implications of the review for practice and research
Practice: The authors stated that the findings from this review question contemporary treatments for children with sexual behaviour problems on the basis of the Adult Sex Offender Model of treatment without caregiver involvement.

Research: The authors stated that future trials should decompose outcome variability attributable to distinct treatment characteristics and practice elements. They should also use appropriate outcome measures, report summary statistics for the complete sample at each longitudinal time point and use intention-to-treat analysis where possible. More data were required from studies that systematically manipulated practice elements, treatment modalities and sample characteristics.

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