Prevention of child sexual abuse victimization: a meta-analysis of school programs

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Authors' objectives
To provide data about the effects of child sex abuse prevention programmes and to estimate the contribution of potential moderator variables such as age, programme duration, or sample size to effect size.

Searching
The studies included in the review of MacMillan et al. (see Other Publications of Related Interest) were used as a starting point. Recent studies published after 1993, when their literature search ended, were sought using thorough computer searches of PsycLIT, ERIC and MEDLINE. The searches were conducted from January 1993 to March 1996 using the keywords 'child sexual abuse prevention'. One recent study that appeared after the completion of this search was also included. The reference lists of the articles and reviews were examined in order to identify studies overlooked in the computer search.

Study selection
Study designs of evaluations included in the review
The included studies had to have a treatment and control group, and have knowledge of child abuse concepts and acquisition of self-protection skills as dependent variables.

Post-intervention effect sizes were measured any time from immediately after intervention to 2 months later. Follow-up effects were measured from 1 to 6 months after the post-test.

Specific interventions included in the review
The intervention programmes used in individual studies were not named.

The programme content was coded as 'instructional' (implying a focus on teaching concepts) or 'behavioural' (focus on teaching skills and concepts) according to the description of the content of the programme in each study. For example, the Red Flag/Green Flag programme, which consists of a film, a colouring book, and a discussion of hypothetical and actual sexual abuse experiences, was coded as an 'instructional' programme. The Behavioural Skills Training programme, in which specific self protection skills are trained, was coded as 'behavioural'.

Participants included in the review
The participants ranged from kindergarten age to 11 and 12 years old. No studies contained children from secondary schools.

Outcomes assessed in the review
Two programme effect measures were used: knowledge of sexual abuse concepts and acquisition of self-protection skills. The number of disclosures of (attempted) child sexual abuse (programme efficacy) was not included as an outcome, since most of the studies did not provide sufficient data regarding this variable.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The quality of the included studies was assessed using the method used in the study of MacMillan et al.(see Other Publications of Related Interest). The following aspects were rated: method of allocation, baseline comparison of experimental and control groups, inclusion and exclusion criteria, and follow-up. A score of less than 12 points implied poor quality, while studies with 12 points or more (maximum score 18) represented good quality. The authors do not
state how the papers were assessed for quality, or how many of the authors performed the quality assessment.

**Data extraction**
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

**Methods of synthesis**
*How were the studies combined?*
Effect sizes were calculated for each individual study. The overall effect size was then calculated using a fixed-effect model.

Tests of categorical models were used in the analysis of moderator variables. Their inter-relations were also computed, and a weighted hierarchical multiple regression analysis was performed in order to determine their association with effect size.

*How were differences between studies investigated?*
Tests for heterogeneity were performed, but the method used was not stated.

**Results of the review**
Sixteen studies were included in the review, comprising a total of 3,979 participants. There were a total of 45 effect sizes on the combined group of 2,436 experimental and 1,544 control children, and 25 effect sizes on the follow-up group of 1,180 experimental and 520 control children.

The post-test effect size (31 treatment groups) was 0.71 (95% confidence interval, CI: 0.65, 0.78) and the follow-up effect size was 0.62 (95% CI: 0.51, 0.73). The fail-safe N, at a critical d of 0.20, yielded a post-intervention value of 86.8 and a follow-up value of 33.4. This implies that 87 unpublished null effect post-intervention studies and 33 null effect follow-up studies are necessary to reduce the effects to a size of 0.20.

For tests of between group differences, no significance was found for two of the moderator variables associated with design characteristics, namely sample size and reliability of outcome measures. Socio-economic status and age were relevant moderators, but only with the post-test measures. Duration and type of intervention were both important moderators of effect size.

In the multiple regression analyses, with the exception of SES, all moderator variables contributed significantly to the prediction of the dependent variable (p<0.05).

**Authors' conclusions**
Victimisation prevention programmes are successful in teaching children sexual abuse concepts and self-protection skills. Intervention characteristics such as duration and content of the programme, and child characteristics such as age and socio-economic status were important moderators of effect size.

These findings corroborate and refine the positive conclusions of traditional narrative reviews. Programmes that focus on skill training, allowing sufficient training time for children to integrate self-protection skills into their cognitive repertoire, are to be preferred.

**CRD commentary**
The review focused on a well-defined question, and the inclusion and exclusion criteria were appropriate.

The search was fairly thorough, although it could have been extended to involve handsearching of journals and an attempt to identify unpublished literature. A publication bias cannot be ruled out. In addition, it may have been more appropriate to repeat or extend the search used by MacMillan et al. (1994), as opposed to using the same articles, as
they may have missed important information. The quality of the included studies was adequately assessed, but this information was not used in any way (e.g. in a sensitivity analysis), nor were the scores of the quality assessment reported. Some details of the individual studies were presented, but it would have also been useful to report the intervention programme used, and the type of intervention (instructional versus behavioural). The primary studies appear to have been combined appropriately, but the results of the heterogeneity tests were not reported.

The conclusions should be interpreted with caution because of the possible heterogeneity across the studies included.

**Implications of the review for practice and research**
The authors suggest that future research should:

address more complicated effectiveness issues such as the transfer of training effects, or negative side-effects;

focus on special groups such as families with a history of abuse, or adolescents from adverse family environments; and

investigate whether children who have participated in a prevention programme demonstrate an increased level of fear and worry.

**Bibliographic details**

**PubMedID**
9330798

**Other publications of related interest**