Parenting programmes for preventing tobacco, alcohol or drugs misuse in children <18: a systematic review

Petrie J, Bunn F, Byrne G

CRD summary
The authors concluded that parenting programmes can be effective in reducing or preventing the use of tobacco, alcohol and drugs. This was a well-conducted and clearly presented review, and the authors’ cautious conclusions are likely to be reliable.

Authors’ objectives
To evaluate the effectiveness of parenting programmes in preventing the misuse of drugs, alcohol or tobacco in children and adolescents.

Searching
The Cochrane CENTRAL Register, the Cochrane Library, the specialised register of the Cochrane Drugs and Alcohol Group, PubMed, PsycINFO, CINAHL, SIGLE and the UK National Research Register were searched for published and unpublished studies from inception to October 2003; the search terms were reported. In addition, reference lists were screened and experts in the field were contacted. No language restrictions were applied.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCT), controlled trials and controlled before-and-after trials (CBA) were eligible for inclusion in the review. The duration of follow-up in the included studies ranged from 1 to 12 years.

Specific interventions included in the review
Studies that compared a parenting programme with no programme or another type of intervention were eligible for inclusion. Parenting programmes were defined as ‘any intervention involving parents which was designed to develop parenting skills, improve parent/child communication or enhance the effects of other interventions’. Studies in which there was minimal contact with the parents were excluded. The included studies evaluated a variety of different formats of parenting programmes and most were conducted in the USA. The studies were set in urban, mixed urban and rural, and rural locations; some were set in areas of high economic deprivation. Studies focused on alcohol, tobacco or a combination of substance misuse behaviours.

Participants included in the review
Studies of parents of children under 18 years of age were eligible for inclusion. Studies of children with established drug, alcohol or smoking habits were excluded, as were studies of parents receiving treatment for their own addictions. The included studies involved primary school children, children in the transition between primary and secondary school, and adolescents.

Outcomes assessed in the review
Studies that reported an objective or self-reported measure of smoking, drinking or drug use by the child, intention of the child to participate in any of these activities, risk behaviours related to drugs or alcohol, or antecedent behaviour, were eligible for inclusion in the review.

How were decisions on the relevance of primary studies made?
Two reviewers independently selected the studies.

Assessment of study quality
Two reviewers independently assessed validity. RCTs and controlled trials were assessed using allocation concealment, baseline measurement of outcomes, blinded assessment of primary outcome, follow-up greater than 80%, protection against contamination, intention-to-treat analysis, and unit of allocation and analysis. Non-randomised studies were
assessed for comparability of control site, baseline measurement of outcomes, blinded assessment of primary outcome, adequate follow-up and protection against contamination.

**Data extraction**
Two reviewers independently extracted the data.

**Methods of synthesis**

*How were the studies combined?*
The studies were grouped by the age of the children and combined in narrative.

*How were differences between studies investigated?*
The results were discussed according to type of substance use targeted. Differences were discussed in the text and were apparent from accompanying tables.

**Results of the review**

Twenty studies were included (at least 33, 229 children; the number of families was reported for some studies). These comprised 16 RCTs, 3 CBAs and a controlled trial.

Among the 16 RCTs, three reported adequate allocation concealment, fifteen reported baseline data for the primary outcome, nine reported adequate follow-up, eight reported blinded outcome assessment, six reported the same unit of allocation and analysis, three were judged as being at risk of contamination and fourteen used intention-to-treat analysis. Among the 4 non-RCTs, three reported baseline data for the primary outcome, two reported blinded outcome assessment, three reported adequate follow-up and one reported the same unit of allocation and analysis, and all four used appropriate matched controls.

**Primary school (4 studies).**

Tobacco, alcohol and drug use (1 study): this study reported no significant difference between the intervention and control in substance use.

Tobacco use (2 studies): both studies reported significant reductions in smoking in children exposed to the intervention compared with control.

Alcohol use (1 study): this study reported a significant reduction in alcohol use and misuse among children exposed to the intervention who had not previously used alcohol compared with control, but a significant increase in use and misuse among children already using alcohol at baseline.

**Transition between primary and secondary school (8 studies).**

Tobacco, alcohol and drug use (4 studies): all 4 studies reported reduced tobacco, alcohol and drug use in children exposed to the intervention compared with control. In 3 studies, reductions for all three types of use were significantly reduced; in the third study reductions were only significant for drugs and tobacco misuse.

Tobacco use (1 study): this study reported no significant difference between the intervention and control in smoking.

Alcohol use (3 studies): all 3 studies reported reduced alcohol use among children exposed to the intervention compared with control. The reduction was statistically significant in one study, while in another the reduction was significant only in one type of school.

**Adolescents (8 studies).**

Tobacco, alcohol and drug use (3 studies): one study reported significant reductions in all types of substance use in children exposed to the intervention; one study reported a statistically significant reduction in alcohol, drug and tobacco use with the intervention among boys only; and one study reported no difference between the intervention and control in drug use or smoking, but an increase in alcohol use.
Drugs and tobacco (1 study): this study targeted drugs and chewing tobacco, and reported no significant difference between the intervention and control in drug use.

Alcohol and tobacco (1 study): this study reported a significant reduction in smoking onset in children exposed to the intervention compared with control, but no significant difference between interventions in alcohol use.

Tobacco (2 studies): one study reported significantly reduced smoking among children exposed to the intervention compared with control; the other study reported that the intervention was associated with a statistically significant reduction in smokeless tobacco use, but a significant increase in smoking.

Alcohol (1 study): this study reported a significant reduction in alcohol use in children exposed to the intervention compared with control.

Authors' conclusions
Parenting programmes can be effective in reducing or preventing the use of tobacco, alcohol and drugs.

CRD commentary
The review addressed a clear question that was defined in terms of the participants, intervention, outcomes and study design. Several relevant sources were searched, attempts were made to minimise publication bias, and no language restrictions were applied. Methods were used to minimise reviewer error and bias in the study selection, validity assessment and data extraction processes. Validity was assessed using specified criteria and the results of this assessment reported. In view of the diversity of the studies, a narrative synthesis was appropriate. This was a well-conducted and clearly presented review, and the authors’ cautious conclusions are likely to be reliable.

Implications of the review for practice and research
Practice: The authors stated that intervention programmes need to take into account the needs of parents to ensure that they are motivated to participate.

Research: The authors stated that further research is required to evaluate the long-term effects of interventions; to determine the processes involved in change in those exposed to interventions; to evaluate interventions aimed at preventing regular experimental and occasional substance use; and to evaluate interventions in other different social groups. Studies need to use rigorous independent measures to evaluate intervention effects.

Funding
Hertfordshire Workforce Development Confederation.

Bibliographic details

PubMedID
16857779

DOI
10.1093/her/cyl061

Original Paper URL
http://her.oxfordjournals.org/cgi/content/full/22/2/177

Indexing Status
Subject indexing assigned by NLM

MeSH
Adolescent; Adolescent Behavior; Alcohol Drinking /prevention & control; Child; Child, Preschool; Education /organization & administration; Health Education /organization & administration; Humans; Parenting; Street Drugs; Substance-Related Disorders /prevention & control; Tobacco

AccessionNumber
12007001148

Date bibliographic record published
07/01/2008

Date abstract record published
03/11/2008

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.