HIV prevention interventions in adolescent girls: what is the state of the science?

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CRD summary

This review evaluated the effect of existing HIV prevention interventions for adolescent females on sexual behaviour and biological outcomes. The authors concluded that further large studies evaluating group and individual interventions in community, school and clinical settings, with interventions tailored to various ages, races and sexual experiences, are required. This conclusion is appropriate given the evidence available.

Authors' objectives

To evaluate existing human immunodeficiency virus (HIV) prevention interventions targeted at adolescent females.

Searching

MEDLINE, PsycINFO and CINAHL were searched from 1990 to 2004. The National Institute of Health (NIH) computer retrieval of information on scientific projects (CRISP) database was also searched (from 1990 to 2004) to identify NIH-funded unpublished studies. Non-NIH funded unpublished studies were not sought. The search terms were reported, but the authors did not specify whether any language restrictions were imposed.

Study selection: study designs

Randomised controlled trials (RCTs) were eligible for inclusion. The duration of follow-up in the included studies ranged from 1 week to 1 year.

Study selection: specific interventions
There were no clear inclusion criteria relating to the intervention. The interventions evaluated in the included studies were group or individual sessions of information, motivation, behavioural skills, parenting, videos, role play and counselling. The studies were set in schools, the community or hospitals.

**Study selection: participants**

Studies of adolescent females, defined as women under 19 years of age, were eligible for inclusion. The age of the participants in the included studies ranged from 11 to 19 years. The majority of the participants belonged to racial minority groups.

**Study selection: outcomes**

Studies reporting sexual behaviour or biological outcomes were eligible for inclusion. The outcomes reported in the included studies were condom use, the number of sexual partners, participation in ‘risky sex’ (defined as sex after the use of drugs or alcohol, and anal or oral intercourse), the incidence of sexually transmitted diseases (STDs), and HIV risk behaviours. Studies reporting attitudinal or knowledge changes were excluded.

**Study selection: how were decisions on the relevance of primary studies made?**

The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

**Validity assessment**

The authors did not state that they assessed validity. The review was restricted to RCTs.

**Data extraction**

One reviewer extracted the data using coding forms produced by that reviewer, while a second reviewer checked the extraction. The authors did not state how any disagreements were resolved.

**Methods of synthesis: how were the studies combined?**

The studies were discussed individually in a narrative, in chronological order.

**Methods of synthesis: how were differences between studies investigated?**
Differences between the studies were discussed in the text.

**Results of the review**

Ten RCTs were identified (five published and five unpublished), of which five published studies (n=981) and one unpublished study (n=62) were included in the review. Four of the unpublished studies were in progress and did not have outcome data available.

Four of the six studies reported a significant effect of the intervention on an outcome measure. Two reported an increase in condom use, two a decrease in the number of sexual partners, and two a decrease in risky sex. The study reporting an increase in condom use and a decrease in risky sex was a community-based programme that gave information and improved motivation and behavioural skills. The study reporting a decrease in the number of sexual partners and risky sex was conducted in a school setting, and provided 2-hour interactive sessions with videos, skills-building exercises and role play. The study reporting an increase in condom use was set in a family planning clinic, and involved participants in a 10- to 20-minute discussion about STDs and condom use, and demonstration and role play. The study reporting a decrease in sexual partners was based in a children's hospital, and provided one 7-minute video and counselling, with booster sessions.

**Authors' conclusions**

Research in the area of gender-specific HIV prevention interventions for adolescent girls is limited.

**CRD commentary**

The review question and inclusion criteria for the participants, outcomes and study design were clearly stated. Several relevant electronic databases were searched, and attempts were made to find published and unpublished data. It was unclear whether language restrictions were used, therefore language bias cannot be ruled out. The data extraction was carried out in duplicate, but it was unclear whether the study selection process was performed similarly; therefore, there is a potential for error and bias. The review was restricted to RCTs, but no further validity assessment was carried out on the RCTs included. The decision to combine the studies in a narrative was appropriate. The data presented support the authors' conclusion that further research is required.

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

Practice: The authors suggested that programmes to reduce HIV risk in adolescent girls should be theoretically driven, and include components that provide girls with HIV-related information and allow them to practise behavioural skills to increase their motivation to reduce their risk of HIV.

Research: The authors recommended full-scale clinical trials specifically designed for adolescent girls, based on theory and pilot studies. Studies should be longitudinal with larger sample sizes than those already available, and evaluate group and individual interventions in community, school and clinical settings, with interventions tailored to various ages, races and sexual experiences.
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