Effectiveness of peer education interventions for HIV prevention, adolescent pregnancy prevention and sexual health promotion for young people: a systematic review of European studies

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CRD summary
This review found that there was no clear evidence of the effectiveness of peer education for HIV prevention, adolescent pregnancy and sexual health for young people in the European Union. Although some studies may have been missed, the author's conclusions are likely to be reliable based on the evidence presented.

Authors' objectives
To determine the efficacy of peer educations interventions for the prevention of HIV, adolescent pregnancy, and the promotion of sexual health amongst young people.

Searching
MEDLINE, PsycINFO and PsyNDEX were searched from January 1999 up to May 2010 for studies in English, German or Spanish; search terms were reported.

Study selection
Studies that were conducted in the European Union and evaluated interventions by peer educators to prevent adolescent pregnancy, HIV infection and or the promotion of sexual health in young people aged between 10 to 24 years were eligible for inclusion. Eligible study designs were randomised controlled trials (RCTs), non-RCTs or before-and-after studies. Eligible comparators were no intervention and/or standard practice. Studies had to report data on at least one primary outcome. Primary outcomes were occurrence of unintended pregnancy and sexually-transmitted disease, sexual experience, age at first sexual intercourse, number of sexual partners, and use of contraceptive methods. A number of secondary outcomes of interest were also noted.

The included trials were conducted in schools in Italy, Germany, Greece and the UK. The participants were students aged between 12 and 20 years. The peer educators were either a similar age to the participants or older educators in trials where the age range of the participants ranged from 13 and 15 years of age (where reported). Training of the peer educators ranged from two to five days in most studies (where reported); two studies reported a total of 60 hours of training. The main activities were information provision, practice of life skills, and condom use demonstration. A range of delivery methods were used including presentations, games, discussion groups, use of anonymous question boxes, role-playing, and dramatisations. The duration of the interventions ranged from four to eight months (where reported).

One reviewer performed the study selection.

Assessment of study quality
Methodological quality of the included trials was assessed using a criteria catalogue from the Institute of Health Economics and Clinical Epidemiology of the University of Cologne. The items assessed included the hypothesis statement, mode of randomisation, comparability of intervention and control groups, use of validated instruments and power calculations, type of analysis, quality of the intervention, and description of statistical methods. The maximum score for RCTs was 7 points; the maximum score for the clinical trials was 6 points.

One reviewer assessed the study quality.

Data extraction
Data were extracted by the study author on the primary and secondary outcomes.

Methods of synthesis
The results were summarised in a narrative synthesis.
Results of the review

Five trials (over 13,728 participants) were included in the review comprising three clinical trials and two RCTs. Follow-up ranged from one week post-intervention to 54 months from baseline (in one RCT). The two RCTs scored the maximum 7 points for quality; the clinical trials scored 4 (one trial) and 3 points (two trials).

All the trials evaluated knowledge as an outcome. There was a statistically significant increase in knowledge observed in one trial for the intervention group; another trial reported a statistically significant increase in knowledge for the control group. There were no differences observed between groups in the remaining three trials. Statistically significant increases in sexual experience were observed in the intervention group in the only trial that evaluated that outcome.

There were statistically significant benefits in attitudes observed in the intervention group in one trial; there were no differences between intervention and control groups in the two other trials that evaluated this outcome.

There were no statistically significant differences between intervention and control groups for peer education in unintended pregnancy (one trial), sexually-transmitted diseases (one trial), contraception use (three trials), numbers of sexual partners (one trial), communication and negotiation skills (three trials), and behavioural intentions (one trial).

Authors’ conclusions

There was no clear evidence of the effectiveness peer education for HIV prevention, adolescent pregnancy and sexual health for young people in the European Union.

CRD commentary

The review addressed a clear question. Criteria for the inclusion of studies in the review were outlined. Three appropriate databases were searched, but no attempts were made to identify unpublished studies. The restriction of the review to studies in particular languages meant some studies may have been missed. No steps were taken to minimise reviewer error and bias at any stage of the review process, as only one author conducted the review.

The methodological quality of the included trials was assessed. Although the RCTs were found to be of good quality, the non-RCTs were of medium quality. It was not clear what the comparators were in any of the included studies. The decision to summarise the results in a narrative summary appeared to be justified because of the diversity of the interventions. However, the lack of reporting of effect sizes meant that it was difficult to draw conclusions about the results. The author acknowledged limitations of the review in increased risk of error and bias with the use of one reviewer, the applicability of the results to countries other than those within the European Union, and the likelihood of missed unpublished studies.

Although some studies may have been missed, the author’s conclusions are likely to be reliable based on the evidence presented.

Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors stated that further research was required on the factors that influence the effectiveness of peer education interventions in the establishment, conduct and evaluation of these projects. Interventions that use the European guidelines for youth AIDS peer education should be used as a framework for further work. Cost effectiveness analyses were also required.

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