Effects and effectiveness of life skills education for HIV prevention in young people

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CRD summary
The review concluded that life skills-based education as part of an HIV and AIDS curriculum or intervention was limited in changing sexual behaviour in young people. For most studies included, the intervention was only one part of a multicomponent intervention, which together with the review’s numerous methodological limitations means the authors’ conclusions are not likely to be reliable.

Authors’ objectives
To evaluate the effects and effectiveness of life skills-based education for HIV (human immunodeficiency virus) prevention in young people.

Searching
MEDLINE, EMBASE, POPLINE, PsycINFO, ERIC, Sociological Abstracts, Social Sciences Abstracts and University of Leeds Health Education Database were searched from 1990 to 2007. Search terms were reported. Bibliographies of retrieved articles and relevant reviews were scanned. Experts in the field were contacted for additional articles.

Study selection
Studies that evaluated life skills-based education programmes for the prevention of HIV in young people and which included more than one educational session were eligible for inclusion in the review. Included studies had to have a comparison group and meet three out of four inclusion criteria. Life-skills training was defined as including one or more of the following skills-building exercises: communication or negotiation skills; decision-making skills; coping skills or self-management; and risk-reduction skills.

Most of the life skills-based education programs in the included studies were implemented in primary and secondary schools and designed for participants in their mid to late teens. The remaining studies were implemented in community settings. The intensity, delivery and duration of interventions varied considerably. Most studies incorporated the intervention into existing sex and relationship education; the remaining studies delivered the intervention as a separate program. Studies were conducted in many different countries, with most conducted in sub-Saharan Africa. Outcomes assessed in the included studies included sexual behaviour, knowledge and attitudes of HIV/AIDS (acquired immune deficiency syndrome) and condom use, intentions, delay of sexual debut and communication skills. Assessment of outcomes varied between studies and ranged from four weeks to 24 months.

The authors stated neither how papers were selected for the review nor how many reviewers performed the selection.

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

Data extraction
Data were extracted on change in sexual behaviour, HIV/AIDS and contraception knowledge and attitudes, communication skills and incidence of HIV/AIDS.

The authors did not state how many reviewers extracted the data.

Methods of synthesis
Studies were combined in a narrative synthesis and were grouped by research design with a higher weight of evidence assigned to experimental studies compared with non-experimental studies. Studies conducted in developing country settings were reported separately to those conducted in developed countries.

Results of the review
Twenty five studies (n>64,882, range 114 to 12,800) were included in the review: eight randomised controlled trials (RCTs); 13 controlled pre-test/post-test design; and four non-experimental evaluation design.

Studies conducted in Sub-Saharan Africa, Latin America, Asia and the Pacific:

Studies that assessed short-term effects of life skills-based education reported increased knowledge (one RCT, eight pre-post intervention studies) and improved attitudes about HIV and AIDS and condom use (one RCT, seven pre-post intervention studies) compared to control groups.

Studies that investigated longer term effects of life skills-based education found increased knowledge about HIV, AIDS and/or contraception (five RCTs, four pre-post intervention studies) compared to control groups. There were improvements in changes in actual behaviour for the life skills-based education groups compared to control groups (five RCTs, three pre-post intervention studies), but such changes were not reported consistently across studies. One RCT reported a positive trend for decreased HIV-1 and HSV-2 (herpes simplex 2) incidence among women in the intervention group compared to control, but the changes were not statistically significant.

Qualitative evaluations of both short- and long-term effects of life skills-based education reported increased knowledge about reproduction and sexual health including HIV, AIDS and condoms (four studies), increased communication skills (three studies) and improved risk perception (two studies).

Regional differences:

Sub-Saharan Africa (13 studies): Life skills-based education interventions were reported to consistently increase the delay of sexual debut (three RCTs), provide a long-term increase in condom use at first sex (one pre-post intervention study) and a short-term decrease in number of sexual partners among men (one pre-post intervention study), improve HIV risk awareness (three qualitative studies) and provide short-term effects on decreased gender violence and risky cultural and sexual practices (one qualitative study).

Latin America and the Caribbean (eight studies): Increases in contraceptive use were reported in Latin American countries for life skills-based education compared to control groups (one RCT, two pre-post intervention studies), as were increases in delay of sexual debut (two pre-post intervention studies), increased condom use with casual partners (one pre-post intervention study) and reduced frequency of sexual intercourse (one pre-post intervention study).

Asia and Europe: Two Asian studies (pre-post intervention studies) and two UK studies reported no impact on reported sexual behaviour, although one UK RCT reported a sustained increase in reported enjoyment of most recent sex for the life skills-based education group.

Further results were reported.

Authors' conclusions
Findings suggested that life skills-based education as part of an HIV and AIDS curriculum or intervention was limited in changing sexual behaviour in young people.

CRD commentary
Inclusion criteria were clearly defined for intervention, population and study design. For studies to be included in the review only three out of four inclusion criteria needed to be met. Several relevant sources were searched and efforts were made to reduce publication bias. It was unclear whether language limitations were applied; however, the review included studies from a wide variety of countries. Methods used to select studies and extract data were not described, so any efforts made to reduce reviewer error and bias were unknown. Study validity was not assessed, so the results from these studies and any synthesis may not be reliable. Some characteristics of the included studies were presented in tables, although the nature of control groups were not reported. Findings for individual studies were reported without supporting data or levels of statistical significance, which made it impossible to verify the findings reported in the review. A narrative synthesis was appropriate given the wide variation in studies. The authors appropriately reported that the differences between studies made it difficult to interpret the results. In most of the included studies, life skills-based education was only part of a multi-component intervention, which made it difficult to attribute the results solely
to life skills-based education programs. In the light of the review's numerous methodological limitations, the authors' conclusions are not likely to be reliable.

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

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

**Research:** The authors stated that further methodologically rigorous studies that evaluated life skills-based education for HIV prevention in young people were required. Further studies should include follow-up of six months or more and provide detail about implementation and delivery of interventions. Results of studies should be reported by sex, age and status of sexual initiation.

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