The health effects of worksite HIV/AIDS interventions: a review of the research literature

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Authors' objectives
To examine the individual and organisational effects of HIV/AIDS interventions conducted in worksites.

Searching
The Centers for Disease Control and Prevention (CDCP) conducted the initial literature search which found 15 papers. This search is listed in a previous paper (see Other Publications of Related Interest). That literature search covered worksite health-oriented databases for the period 1968 through 1994 and included MEDLINE, AIDSLINE, Psychological Abstracts, Combined Health Information Database, Employee Benefits Infosource, National Prevention Evaluation Research Collection, National Resource Center on Worksite Health Promotion, National Technical Information Service, and the Substance Abuse Information databases. Areas searched included HIV/AIDS, and multicomponent programmes.

The CDC also manually searched health promotion journals to identify articles missed by the computer search, particularly those published after the search was conducted and those found in journals not included in the databases. The CDC search also checked references of identified articles for additional studies.

In addition, the authors of this review manually searched new HIV/AIDS-related journals and also searched the references of identified articles for additional publications. Five papers were found using the additional searches.

References to papers presented at the annual International Conference on AIDS were excluded. Even though abstracts of those papers were available, the information provided by the abstracts was limited and the reviewers were unable to retrieve additional information from the authors of the original papers.

Study selection
Study designs of evaluations included in the review
Data-based studies examining the effects of HIV/AIDS activities on either the organisation or the person. Descriptive or anecdotal reports were excluded. Designs ranged from RCTs to observational retrospective studies.

Specific interventions included in the review
The authors proposed to review the following interventions: development of company policy, training of managers and supervisors, education of employees, education of employees' families, and outreach to the community. However, only interventions addressing employee education were found.

Participants included in the review
Employees participating in education programmes about HIV/AIDS. Details such as job title, marital status, and ethnicity are reported where known.

Outcomes assessed in the review
The impact of the interventions on the knowledge, attitudes, skills, and behaviours of employees, measured by the short-term effects at the end of the programme or one month after the intervention.

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 authors rated individual studies on a 5-point scale relating to study design, with a 5 rating being a properly
conducted study with a randomised control group (RCT), a 4 rating consisting of a properly conducted study with comparison group but no randomisation, a 3 rating involving an evaluation with comparison or control group, a 2 rating consisting of an article detailing no intervention but including results from dissemination of information into a population, and a 1 rating being an article that was descriptive, anecdotal, or authoritative.

The included studies were also assessed for specific methodological problems in four categories: sample (representativeness, response/participation rate, and drop-out rate); instrument (reliable measures, valid measures, instrument changed from pre- to post-test); data collection (matching of individual scores); and data analysis (appropriate analyses and control for confounding variables). Studies were scored either yes or no for influence on study results or with a question-mark where the authors were unsure of influence on study results. The authors do not state how the papers were assessed for validity, or how many of the authors performed the validity assessment.

Data extraction
The authors do not state who, or how many of the reviewers, performed the data extraction.

data were extracted into a table which listed study author, purpose of evaluation, research design rating, sample size, sample description, comparison group, evaluation period, outcome measures, research design and findings.

Methods of synthesis
How were the studies combined?
The individual studies are presented in a table and then discussed in a narrative review. There was no statistical combining of the data.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated.

Results of the review
Twelve studies met the inclusion criteria: one 5-rated RCT with 421 participants; two 4-rated controlled trials without randomisation with 926 participants; eight 3-rated pre-experimental studies with 9,544 participants (2 studies did not report participant numbers); and one 2-rated pre-experimental study with 65 participants.

Ten of the 12 studies reported positive effects of employee education programmes on knowledge or attitudes. Nine of the studies involved health care workers or employees with potential occupational exposure to HIV, and nine lacked a comparison or control group.

None of the included studies examined the effects of policies, manager training, or family education on the organisation or the person.

Authors' conclusions
For 11 of the 12 studies reviewed, the quality of research was lacking in rigour. Consequently, the authors conclude that the effectiveness of worksite HIV/AIDS interventions is weak as indicated by being fragmented, non-experimental, or poorly operationalised. Impact is, however, plausible.

CRD commentary
The authors have clearly stated their research question and inclusion and exclusion criteria. The literature search is very good although the exclusion of non-English language publications could have resulted in relevant studies being missed. Data is reported in tables both for the extracted data and the results of the quality review of the included studies. The quality of the included studies was assessed although a formal scoring system was not applied. The authors have not reported on how the articles were selected, or how many of the reviewers were involved in the data extraction.
The studies are not statistically combined and there are no formal tests for homogeneity. The authors acknowledge several drawbacks about the quality and design of the individual studies and the conduct of their review, and state that the evidence for the effectiveness of worksite HIV/AIDS interventions is weak. These conclusions follow from their results.

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

Practice: The authors state that practitioners should focus their efforts on the development of theoretically-based interventions using strategies proven effective for other types of programmes where appropriate.

Research: The authors state that researchers should focus on developing reliable and valid measures of knowledge, attitudes, and behaviour and work with practitioners to conduct controlled, methodologically sound evaluations. Future research should be directed toward developing valid measures of key variables, controlling for confounding factors and ultimately examining the impact of organisational factors.

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**Other publications of related interest**


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