How effective are complementary therapies for HIV and AIDS: a systematic review

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Authors' objectives
To assess the effectiveness of complementary therapies in HIV-positive individuals.

Searching
The authors searched the electronic databases of MEDLINE, EMBASE, the Cochrane Library, and CISCOM (from their inception to the end of 1997) using the search terms: 'alternative medicine', 'AIDS', 'complementary medicine', and 'HIV'. The authors also searched their own database on complementary medicine and experts were asked to contribute further references. The bibliographies of all papers were searched for additional relevant studies. There were no language restrictions.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) with control interventions of placebo, sham therapy, standard treatment or no treatment at all. Trials were excluded if they lacked a proper statistical analysis, if they related to trials of conventional therapeutic approaches, if they lacked clinical end points, or if they were not randomised.

Specific interventions included in the review
Herbal treatments, vitamin treatments and other supplements (selenium, beta-carotene, oral nutritional supplements, vitamin A, alphatocopherol and vitamin C), stress management, massage therapy and acupuncture in the intervention groups and placebo, sham treatment, standard treatment or no treatment in the control groups. Experimental new treatments e.g. extracorporeal whole body hyperthermia were excluded.

Participants included in the review
HIV-positive and AIDS adult patients, and children of HIV mothers (HIV exposed newborns).

Outcomes assessed in the review
Various objective (blood tests, body mass index, daily weight gain, infections, therapeutic failure, symptoms) and subjective (mood, anxiety mood self esteem management, dysphoria, profile of mood states (POMS), total mood disturbance (TMD), Mishel Uncertainty in Illness Scale (MUIS), Brazelton neonatal behaviour assessment scale, and changes in mean pain scores) outcome measures.

How were decisions on the relevance of primary studies made?
Two authors read all papers in full. Disagreements were settled through discussion.

Assessment of study quality
No formal assessment of quality was undertaken.

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

Data were extracted using a standardised, pre-defined form and any disagreements were settled through discussion. Data were extracted for the categories of study identification, study design, stage of disease, treatment and number of participants for intervention group, treatment and number of participants in control group, outcome measures, results and comments.
Methods of synthesis
How were the studies combined?
The studies were combined a narrative synthesis focusing on the outcome measures of each included study.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated. However, they did state that the included studies were highly heterogeneous in terms of trial methodology, treatment modalities and other characteristics.

Results of the review
Fourteen RCTs were included in the study with at least 297 (with number not stated for one trial) participants in the treatment groups and at least 376 (with number not stated for one trial) participants in the control groups.

The results for 2 trials using herbal remedies found no significant difference between groups in one trial of Chinese herbs versus placebo and beneficial effects for HIV asymptomatic patients in the lower dose treatment group in a trial of boxwood (990 mg/day and 1980 mg/day) versus placebo, although this trial was aborted due to ethical reasons.

The results for 5 trials of vitamins and other supplements (selenium, beta-carotene, oral nutritional supplements, vitamin A, alphatocopherol and vitamin C) found no significant differences between treatment and control groups.

The results of 5 trials on stress management found some benefit for sero-positive patients in terms of decrease in number of sexual partners, anxiety, self-esteem, and T-cell count.

Results for massage treatment in 1 trial found that deterioration in HIV-exposed newborns can be attenuated by the use of massage therapy.

Results in 1 trial of standard acupuncture regimen (SAR) and amitriptyline found that neither acupuncture not amitriptyline was more effective than placebo in relieving pain caused by HIV-related peripheral neuropathy.

Cost information
In the discussion, the authors state that the annual out-of-pocket expenditure per complementary medicine user was US $938.

Authors' conclusions
The authors conclude that few rigorous trials of complementary treatments for HIV exist. The trials included in this review fall into two categories: cure and care. While the former category yields few encouraging results, the latter group of studies is more promising. In particular, stress management may prove to be an effective way to increase the quality of life. While complementary medicine use for HIV is prevalent, the notion that complementary therapies do more good than harm is at present not supported by compelling evidence from rigorous RCTs.

CRD commentary
The authors have clearly stated their research question and some inclusion and exclusion criteria. The literature search appears thorough but does not mention the inclusion of unpublished data. The quality of the included studies was not formally assessed however the authors state that the small numbers of participants was the most common methodological flaw in the included studies. The authors have reported on how the articles were selected, but not on how many of the reviewers were involved in the data extraction.

The data extraction is reported in tables and text. The studies were combined in a narrative synthesis which described the study characteristics and results for each of the reviews’ outcomes. There were no tests for heterogeneity although the authors have discussed some of the methodological and data limitations in the review. The authors conclusions that the efficacy of complementary medicine is not proven follows from the review.
Implications of the review for practice and research
Practice: The authors do not state any implications for practice.
Research: The authors state that further research is needed regarding the care of HIV-infected individuals using complementary medicine.

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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.