HOME-BASED CARE FOR REDUCING MORBIDITY AND MORTALITY IN PEOPLE INFECTED WITH HIV/AIDS

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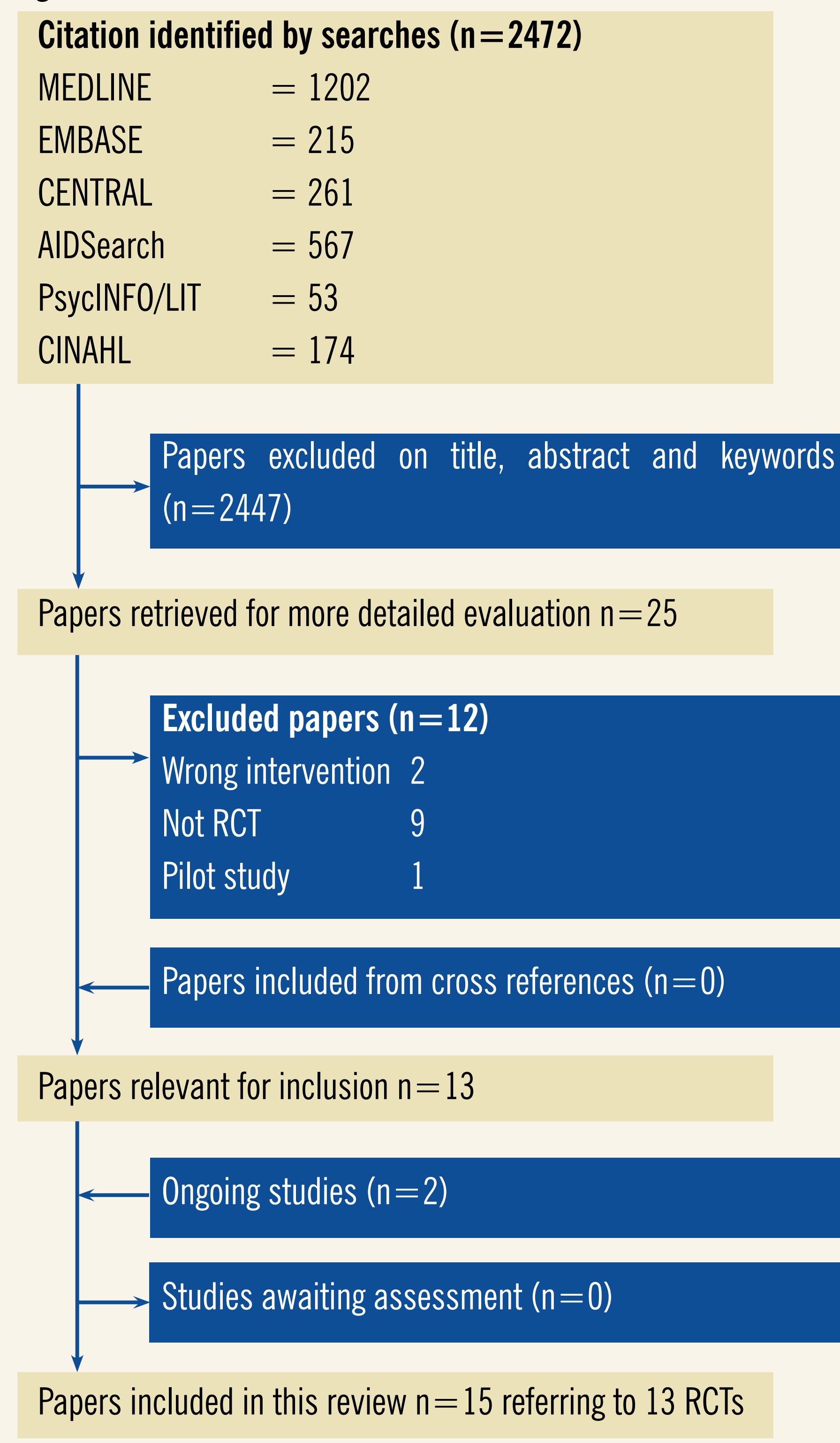
BACKGROUND

Home-based care (HBC), to promote quality-of-life and limit hospital care, is used in many countries, especially where public health services are overburdened. This review assessed the effects of HBC on morbidity and mortality in those with HIV/AIDS.

METHODS

Search methods

Randomised and controlled clinical trials of HBC including all forms of treatment, care and support offered in the home were included. A highly sensitive search strategy was used to search CENTRAL, MEDLINE, EMBASE, AIDSearch, CINAHL, PsycINFO/LIT (Figure 1).

Figure 1. Identification of studies

Citation identified by searches (n=2472)

MEDLINE	= 1202
EMBASE	= 215
CENTRAL	= 261
AIDSearch	= 567
PsycINFO/LIT	= 53
CINAHL	= 174

Papers excluded on title, abstract and keywords (n=2447)

Papers retrieved for more detailed evaluation n=25

Excluded papers (n=12)
Wrong intervention 2
Not RCT 9
Pilot study 1

Papers included from cross references (n=0)

Papers relevant for inclusion n=13

Ongoing studies (n=2)

Studies awaiting assessment (n=0)

Papers included in this review n=15 referring to 13 RCTs

Selection criteria

All randomised and controlled clinical trials of HIV/AIDS positive individuals, adults and children, of any gender, and from any setting were included. HBC, provided by family, lay and/or professional people, including all forms of treatment, care and support offered in the HIV/AIDS positive person's home as compared to hospital or institutional based care.

Data collection and analysis

Titles, abstracts and descriptor terms of the electronic search results were screened independently by two authors for relevance based on the types of participants, interventions, and study design. Full text articles were obtained of all selected abstracts and an eligibility form was used to determine final study selection. Data extraction and assessment of risk of bias (Figure 2) were done independently. Narrative synthesis of results was done. Relevant effect measures and the 95% confidence intervals were reported.

RESULTS

Ten studies randomised individuals (trial sizes varied from n=31 to n=549) and one study randomised 392 households and enrolled a total of 509 persons with HIV and 1,521 HIV-negative household members. Trials included both males and females, and only one trial was conducted amongst children. Nine trials were conducted in USA, one in France and one in Uganda. The included studies evaluated a range of interventions (Table 1). Two ongoing studies being conducted in Uganda were identified.

Intensive home-based nursing significantly improved self-reported knowledge of HIV and medications, self-reported adherence and difference in pharmacy drug refill (1 study). Another study, comparing proportion of participants with greater than 90% adherence, found statistically significant differences over time but no significant change in CD4 counts and viral loads. A third study found significant differences in HIV stigma, worry and physical functioning but no differences in depressive symptoms, mood, general health, and

Table 1. Description of studies: Interventions and outcomes

Type of intervention	No. of studies	Study ID	Outcomes
Home based nursing vs. standard care	1	Miles 2003	Emotional distress (depression, stigma, worry) and health related quality of life
	2	Berrien 2004 Williams 2006	Changes in patients knowledge of HIV and medication, adherence, viral load and CD4
Transprofessional team vs. independent primary nurse	1	Cherin 1998	Time in program, costs
	1	Nickel 1996	Quality of life and functioning
Computer vs. brochures/ nothing/ standard medical care	2	Flatley-Brennan 1998 Gustafson 1999	Perceived social isolation, decision making confidence, health status, quality of life, risk behaviors, health service utilisation, CHESS usage
Home total parenteral nutrition vs. dietary counseling	1	Melchior 1996	Change in % of initial lean body mass and body cell mass, nutritional subjective global assessment, Karnofsky index, rate re-hospitalisation, adverse events
Exercise vs. control	1	Baigis 2002	Physiological status, self reported physical functioning and wellbeing
	1	Dolan 2006	Cardio-respiratory fitness; strength; changes in body composition, biochemical measures (total cholesterol, low and high-density lipoprotein cholesterol, triglycerides, glucose, CD4, and HIV viral load) and dietary intake
Home-based water chlorination and safe storage	1	Lule 2005	Incidence and severity of diarrhoea

Figure 2. Risk of bias assessment

overall functioning. Comprehensive case management by trans-professional teams compared to usual care by primary care nurses had no significant difference in quality-of-life after 6-months of follow-up (n=57) and average length of time on service (n=549). Home total parenteral nutrition had no significant impact on overall survival and rate of re-hospitalisation. Two trials comparing computers with brochures/nothing/standard medical care found no significant effect on health status, and decision-making confidence and skill, but a reduction in social isolation after controlling for depression. Two trials evaluating home exercise programmes found opposing results. Home-based safe water systems reduced diarrhea frequency and severity among persons with HIV in Africa.

CONCLUSION

Studies were generally small and very few studies were done in developing countries. There was a lack of studies looking at the effect of home based care or looking at significant end points (death and progression to AIDS). However, the range of interventions and HBC models evaluated can assist in making evidence-based decisions about HIV care and support.

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SOUTH AFRICAN MEDICAL RESEARCH COUNCIL

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