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[Intervention Review]

Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases

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ABSTRACT

Background

Lay health workers (LHWs) are widely used to provide care for a broad range of health issues. Little is known, however, about the effectiveness of LHW interventions.

Objectives

To assess the effects of LHW interventions in primary and community health care on maternal and child health and the management of infectious diseases.

Search methods

For the current version of this review we searched The Cochrane Central Register of Controlled Trials (including citations uploaded from the EPOC and the CCRG registers) (*The Cochrane Library* 2009, Issue 1 Online) (searched 18 February 2009); MEDLINE, Ovid (1950 to February Week 1 2009) (searched 17 February 2009); MEDLINE In-Process & Other Non-Indexed Citations, Ovid (February 13 2009) (searched 17 February 2009); EMBASE, Ovid (1980 to 2009 Week 05) (searched 18 February 2009); AMED, Ovid (1985 to February 2009) (searched 19 February 2009); British Nursing Index and Archive, Ovid (1985 to February 2009) (searched 17 February 2009); CINAHL, Ebsco 1981 to present (searched 07 February 2010); POPLINE (searched 25 February 2009); WHOLIS (searched 16 April 2009); Science Citation Index and Social Sciences Citation Index (ISI Web of Science) (1975 to present) (searched 10 August 2006 and 10 February 2010). We also searched the reference lists of all included papers and relevant reviews, and contacted study authors and researchers in the field for additional papers.

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Selection criteria

Randomised controlled trials of any intervention delivered by LHWs (paid or voluntary) in primary or community health care and intended to improve maternal or child health or the management of infectious diseases. A 'lay health worker' was defined as any health worker carrying out functions related to healthcare delivery, trained in some way in the context of the intervention, and having no formal professional or paraprofessional certificate or tertiary education degree. There were no restrictions on care recipients.

Data collection and analysis

Two review authors independently extracted data using a standard form and assessed risk of bias. Studies that compared broadly similar types of interventions were grouped together. Where feasible, the study results were combined and an overall estimate of effect obtained.

Main results

Eighty-two studies met the inclusion criteria. These showed considerable diversity in the targeted health issue and the aims, content, and outcomes of interventions. The majority were conducted in high income countries (n = 55) but many of these focused on low income and minority populations. The diversity of included studies limited meta-analysis to outcomes for four study groups. These analyses found evidence of moderate quality of the effectiveness of LHWs in promoting immunisation childhood uptake (RR 1.22, 95% CI 1.10 to 1.37; P = 0.0004); promoting initiation of breastfeeding (RR = 1.36, 95% CI 1.14 to 1.61; P < 0.00001), any breastfeeding (RR 1.24, 95% CI 1.10 to 1.39; P = 0.0004), and exclusive breastfeeding (RR 2.78, 95% CI 1.74 to 4.44; P < 0.0001); and improving pulmonary TB cure rates (RR 1.22 (95% CI 1.13 to 1.31) P < 0.0001), when compared to usual care. There was moderate quality evidence that LHW support had little or no effect on TB preventive treatment completion (RR 1.00, 95% CI 0.92 to 1.09; P = 0.99). There was also low quality evidence that LHWs may reduce child morbidity (RR 0.86, 95% CI 0.75 to 0.99; P = 0.03) and child (RR 0.75, 95% CI 0.55 to 1.03; P = 0.07) and neonatal (RR 0.76, 95% CI 0.57 to 1.02; P = 0.07) mortality, and increase the likelihood of seeking care for childhood illness (RR 1.33, 95% CI 0.86 to 2.05; P = 0.20). For other health issues, the evidence is insufficient to draw conclusions regarding effectiveness, or to enable the identification of specific LHW training or intervention strategies likely to be most effective.

Authors' conclusions

LHWs provide promising benefits in promoting immunisation uptake and breastfeeding, improving TB treatment outcomes, and reducing child morbidity and mortality when compared to usual care. For other health issues, evidence is insufficient to draw conclusions about the effects of LHWs.

PLAIN LANGUAGE SUMMARY

The effect of lay health workers on mother and child health and infectious diseases

A review of the effect of using lay health workers to improve mother and child health and to help people with infectious diseases was carried out by researchers in The Cochrane Collaboration. After searching for all relevant studies, they found 82 studies. Their findings are summarised below.

What is a lay health worker?

A lay health worker is a member of the community who has received some training to promote health or to carry out some healthcare services, but is not a healthcare professional. In the studies in this review, lay health workers carried out different tasks. These included giving help and advice about issues such as child health, child illnesses, and medicine taking. In some studies, lay health workers also treated people for particular health problems.

The studies took place in different settings. In many of the studies, lay health workers worked among people on low incomes in wealthy countries, or among people living in poor countries.

What the research says

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The use of lay health workers, compared to usual healthcare services:

- probably leads to an increase in the number of women who start to breastfeed their child; who breastfeed their child at all; and who feed their child with breastmilk only;
- probably leads to an increase in the number of children who have their immunization schedule up to date;
- may lead to slightly fewer children who suffer from fever, diarrhoea and pneumonia;
- may lead to fewer deaths among children under five;
- may increase the number of parents who seek help for their sick child.

The use of lay health workers, compared to people helping themselves or going to a clinic:

- probably leads to an increase in the number of people with tuberculosis who are cured;
- probably makes little or no difference in the number of people who complete preventive treatment for tuberculosis.