

Cochrane Review Summary: face-to-face interventions for informing or educating parents about early childhood vaccination



Daksha Trivedi

Senior Research Fellow, Evidence Based Practice, Centre for Research in Primary and Community Care, University of Hertfordshire, Hatfield, UK

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Review question

Are face-to-face interventions for informing or educating parents about early childhood vaccination effective on immunisation uptake and parental knowledge?

Relevance to primary care and nursing

Health professionals including paediatricians, health visiting and school nursing teams, GPs and practice nurses are involved in children and young people's immunisation services. The National Institute for Health and Care Excellence (NICE) has issued a guidance report for the National Health Service, commissioners, managers and health professionals on reducing differences in the uptake of immunisations (NICE 2009) in children and young people. It highlights the importance of parental responsibility and the need to provide them with information on childhood vaccinations.

Characteristics of the evidence

This Cochrane review contained six randomised controlled trials (RCTs) and one cluster RCT, which included 2978 participants who were parents, guardians or others in a parental role, and who had at least one child due for childhood vaccinations (Kaufman *et al.*, 2013). Three studies

were conducted in low- or middle-income countries (Nepal, Pakistan) and four were conducted in high-income countries (Australia, Canada and the United States). Interventions needed to be face-to-face communication that needed to mention some aspects of routine childhood vaccinations that aimed to change parental knowledge, beliefs, attitudes, behaviour or self-efficacy. They were directed to parents to inform or educate them about routine childhood vaccinations (based on recommendations by the World Health Organisation (WHO 2012).

They were compared with usual care or no intervention (eg, passive intervention, information cards). Most interventions were directed to mothers, one was delivered to expectant parents, and three targeted mothers who had barriers to accessing vaccination, which included illicit drug users, adolescent mothers or mothers of low socioeconomic status. Six studies delivered face-to-face interventions to individuals and one targeted groups of parents, via oral or information sessions, lectures, group classes, home visits or outreach sessions. They could be delivered by anyone including physicians, nurses or other healthcare professionals, lay volunteers from the community or peers in clinics, antenatal classes or the mother's home. The type, intensity and duration of interventions varied.

Summary of key evidence

The trials were of low quality and were at moderate risk of bias overall. Primary outcomes included immunisation status of child and parental

Correspondence to: Dr Daksha Trivedi, Senior Research Fellow, Evidence Based Practice, Centre for Research in Primary and Community Care, University of Hertfordshire, College Lane, Hatfield, AL10 9AB, UK. Email: d.trivedi@herts.ac.uk

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knowledge or understanding of vaccination. Secondary outcomes included parental intention to vaccinate the child, experience of intervention, adverse effects and cost of implementing intervention. The latter was reported by one study and no other measures were reported. Assessment varied from immediate pre/post intervention to 12 months. The cluster RCT did not report usable data for the review. Meta-analysis was not conducted.

Face-to-face interventions for individual parents versus control

Immunisation status, single session intervention

Four comparisons from three studies ($n = 2101$) showed inconsistent results at three months. Two studies that showed significant improvement (18%; $n = 750$ and 54%; $n = 754$, respectively) in immunisation rates had a high risk of bias.

Immunisation status, multi-session, post intervention

Two low quality studies ($n = 328$) showed inconsistent results from reduced to no effect.

Knowledge/understanding of vaccination

Two studies ($n = 489$) with multi-session interventions showed no significant effect compared with controls.

Costs

Only one low quality study ($n = 365$) reported costs, so the effects of the case management intervention remain uncertain. The additional cost of immunisation per child for the intervention delivered to all children was approximately eight times higher than usual care and four times higher for high risk children (defined as those children who received few well-child visits ($\leq 3/5$ visits)). The study did not consider effects of the intervention on subsequent care and changes to costs over time, for which longer-term data are required.

Face-to-face interventions for groups of parents versus control

Knowledge/understanding of vaccination

One cluster RCT reported comparable baseline scores and no significant differences between *Primary Health Care Research & Development* 2014; **15**: 339–341

groups at post-test. Data were not usable for the review.

No included studies were reported in other comparisons (Face-to-face interventions for individuals versus groups, and comparison of two different types of face-to-face interventions)

Implications for Practice

There is insufficient evidence to recommend face-to-face interventions to educate parents about early childhood vaccination, although incorporating communication about vaccination in routine care may be appropriate.

Implications for research

High quality RCTs are required to evaluate face-to-face interventions to educate parents across more diverse settings and populations, including low literacy populations. Comparisons of common combinations of multi-component interventions are required which include intermediate outcomes to identify pathways of effect. Trials with stepped interventions need to be developed to examine the effects of each component. Clarity is required on the content of components of interventions and comparisons as well as the format, method and frequency of delivery.

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Conflicts of Interest

None.

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