Effect of interventions to improve health care services for ethnic minority populations

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CRD summary
The review concluded that educational interventions and electronic reminders to physicians may improve health and health outcomes for minority patients in some contexts. The review was generally well conducted and the authors' conclusions were appropriately tentative given that the supporting evidence was sparse, of low quality and very heterogeneous.

Authors' objectives
To assess the effect of interventions directed at health care personnel and/or organisations either alone or as part of a complex intervention package to improve health care services for ethnic minorities.

Searching
MEDLINE, EMBASE, The Cochrane Library, British Nursing Index, Social Sciences/Science Citation Index and Research and Development Resource Base in Continuing Medical Education were searched without age or language restriction for relevant studies; no search terms or search dates were reported. Reference lists of eligible reviews were also searched for primary studies.

Existing systematic reviews were assessed for relevance; they were all considered outdated so a new systematic review and search was undertaken. Primary studies from the outdated reviews were checked for relevance to the new review.

Study selection
Randomised controlled trials (RCTs) of patients who belonged to an ethnic minority in their country of residence were eligible for the review. Eligible interventions were those directed at health care personnel and/or organisations either alone or as part of a complex intervention package, with the specific aim of improving the quality of health care services for minority populations. Studies of primarily patient-oriented interventions were excluded but interventions targeted at both health personnel and patients were included. Outcomes of interest included quality of health care services, use of health care services, patient health or the quality of life for patients.

In the included primary studies, most participants were African-Americans or Latin-Americans and all ages were represented. Settings included general practice, methadone drug clinics, polyclinics in hospitals, children's clinics, medical centres, diabetes clinics, emergency ward, obstetrics department and children's hospital. Patients had a wide range of medical conditions which included diabetes, birthing, asthma, kidney transplant, smoking and drug cessation.

Two reviewers independently selected studies for the review.

Assessment of study quality
Studies were assessed for risk of bias using criteria from The Cochrane Handbook and the overall quality of the combined evidence for each outcome was assessed using criteria from GRADE; overall assessment for each outcome was categorised as high, medium, low or very low.

Two reviewers independently assessed individual studies for risk of bias and the quality of the evidence for each outcome.

Data extraction
Data were extracted on the relevant outcomes according to how they were presented in the individual studies.

Methods of synthesis
Studies were combined in a narrative synthesis and presented in tables. Interventions were classified according to three types of barriers: organisational, structural or clinical barriers. Subgroups within each type of barrier included educational interventions and complex interventions with education (clinical barriers), reminders, complex interventions with reminders and professional interpretation services (structural barriers) and matching and follow-up and support.
(organisational barriers).

**Results of the review**

Nineteen studies were included in the review. The quality of the evidence for each outcome was either low or very low.

**Clinical barriers:**

Educational interventions (eight RCTs): Two out of four studies which attempted to improve cross cultural communication and reduce communication barriers, both of which included patients, reported significant benefits with educational interventions aimed at training health care personnel. Two of four studies with complex interventions and an educational program (one of which included patients) reported significant benefits on outcomes. One of these interventions was aimed at improving care of depressive patients and the other at improving care of children with asthma.

**Structural barriers:**

Reminders (five RCTs): Five studies assessed six outcomes. Four of six separate comparisons (which examined computerised reminders either alone or as part of a complex intervention) reported statistically significant benefits for outcomes. One study assessed reminders for pap screening to both physicians and patients, another examined computerised reminders in addition to feedback to physicians regarding their diabetes treatment, another compared reminders in addition to orientation of health personnel and free mammography with a limited version of the same intervention, and the fourth compared a recall and reminder system in addition to feedback, training of health personnel and follow-up of the practices which included an outreach diabetes team.

Professional interpretation services (two RCTs): Both studies reported significant benefits of a remote translator on outcomes such as satisfaction with communication/care and more physician communication.

**Organisational barriers:**

Matching clients and therapists (two RCTs): Neither study reported significant results.

Follow-up and support interventions (two RCTs): One of two studies reported a significant benefit of clinical pharmacist interaction with specialists and kidney transplant patients on mean systolic blood pressure.

**Authors’ conclusions**

Educational interventions and electronic reminders to physicians may in some contexts improve health care and health outcomes for minority patients but the evidence supporting this conclusion was either low or very low.

**CRD commentary**

The review addressed a clear research question, supported by appropriate inclusion criteria. A wide range of relevant sources was searched for studies without age or language restriction, but no specific attempts were made to find unpublished studies, so publication bias cannot be ruled out. Appropriate methods were used to select studies, extract data and assess studies for quality, thereby minimising the chances of reviewer error and bias.

An appropriate tool was used to assess each individual study for risk of bias and another tool used to assess the overall quality of the evidence for each outcome. The authors acknowledged that the quality of the evidence was either low or very low, which meant the results of the primary studies may have been unreliable. The studies were appropriately synthesized in narrative format but settings, participants, interventions and outcomes varied widely which made it difficult to reach reliable conclusions. The review was generally well conducted and the authors’ conclusions were appropriately tentative, given that the supporting evidence was sparse, of low quality and very heterogeneous.

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

**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated that further research should test the effectiveness of general quality improvement interventions for minorities. The authors stressed that it was important to establish whether ethnic disparities in
treatment existed, in particular for diseases where minorities were at higher risk. Where identified, treatment should be targeted and implementation of its effectiveness evaluated.

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