

Lifestyle-tailored interventions for South Asians with type 2 diabetes living in high-income countries: a systematic review

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Abstract

Aim

To summarize evidence on the effectiveness of educational interventions for type 2 diabetes control in South Asians living in high-income countries.

Methods

We systematically searched PubMed, EMBASE, Cinahl and the Cochrane Library, using Medical Subject Heading and free-text terms. The considered outcomes were: mortality, morbidity, glycaemic control, blood pressure, practice (diet, physical activity and self-care), attitudes/awareness and knowledge. Papers published up to July 2015 were considered. Two reviewers independently screened the title and abstract and then read the full text of selected papers.

Results

Nine studies were included, four non-randomized studies of interventions and five randomized controlled trials. All studies except one were conducted in the UK. Target population ranged from 39 to 1486 individuals; the follow-up ranged from 1 to 24 months. The interventions were mostly based on a tailored educational package, individually or group administered, conducted by lay link workers, health professionals or both. No study measured mortality or morbidity. An effect on glycaemic control was observed only in before/after studies, while a randomized study showed a non-significant improvement (percentage of glycated haemoglobin -0.15 , $P = 0.11$). Two randomized studies found a reduction in blood pressure. Changes in practice and attitudes showed heterogeneous results, mostly favouring intervention.

Conclusions

There was weak evidence that interventions using link workers and tailored education can modify attitudes, self-care skills and blood pressure in South Asian migrants to industrialized countries. Only one larger trial, with adequate follow-up, showed a small non-significant improvement of glycaemic control.