Tailored interventions to overcome identified barriers to change: effects on professional practice and health-care outcomes

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RHL commentary by Fox CE, Khan KS

1. INTRODUCTION

Implementation of evidence-based practice has had variable success, and many known effective interventions remain underutilized. To integrate research evidence into practice successfully, it is important to consider a range of approaches that potentially could work in a specific environment. At its core, implementation requires change, but people and organizations do not like change (1). However, a systematic assessment of possible barriers to change can help in devising a tailored strategy. Health-care professionals need to have access to valid, applicable evidence and they need to accept the worth of the evidence before they choose to adopt it. Organizations need to have the facilities to develop local protocols that incorporate up-to-date information, as well as the resources to implement the relevant changes. Barriers to implementation may exist at a personal level, involving either individual health-care professionals or patients, or there may be difficulties in procuring the tools needed for implementation of change strategies owing to barriers at the organizational level. Once delineated, in theory, the barriers can be dealt with and overcome. This review (2) seeks to answer the question: Can tailored interventions overcome barriers to change?

2. METHODS OF THE REVIEW

The review authors sought randomized controlled trials that compared either: an intervention tailored to overcome identified barriers with no intervention or with an untailored intervention; or an intervention targeted at individual and social or organizational barriers with an intervention targeted at individual barriers only.
The review authors sought to include studies in which barriers were identified prospectively (e.g. through focus group discussion), and to exclude those that used only gap analysis, or in which an educational intervention focused solely on changes in knowledge or attitude. Studies were also excluded if they did not involve a comparison arm in which no intervention was performed. Quality of studies was assessed according to the following criteria: concealment of allocation; blinded or objective assessment of primary outcome(s); completeness of follow-up; no major concerns in relation to baseline measures; reliable primary outcomes; and protection against contamination. The outcomes were objective assessments of professional performance or patient outcomes or both.

The literature search performed was comprehensive in its approach in accordance with Cochrane standards and included studies published until December 2002, although only English-language papers were included. An updated search was performed in June 2004, but these papers are listed separately in the review as 'awaiting assessment’. All study characteristics are clearly displayed in tabular format in the review.

3. RESULTS OF THE REVIEW

Seven out of the 15 includes trials were based in a primary care or community setting, three were based in secondary care, one was based in practices contracted to a managed care organization, and one was based in residential care. The review authors concluded that there was some risk of bias in all the included studies, although 14 studies were judged to be of high or moderate quality overall. None of the studies were performed in low- or middle-income countries. The results of the review are divided into the two comparisons outlined above (in the methods section) and meta-analysis was performed where a binary outcome was reported.

The review reports mixed results. Overall, however, the trend was in favour of tailored interventions improving patient care and patient outcomes compared with non-specific interventions. The mixed results could not be explained by variations in study quality. The results of meta-analysis of six studies also suggested that tailored intervention improved outcome, although only one of the two approaches employed (an intervention tailored to address identified barriers to change compared with no intervention or one or more interventions) not tailored to the barriers) reached statistical significance [classical meta-analysis combined odds ratio (OR) 2.18; 95% confidence interval (CI) 1.09–4.34 p=0.026]; Bayesian meta-regression combined produced a non-significant result (OR 2.27; 95% 0.92–4.75).

4. DISCUSSION

4.1 Applicability of the results

The review reports a trend towards a benefit in overcoming barriers to change if a tailored intervention is used. However, less than half the available studies could be included in the meta-analysis and this led to statistical uncertainty. If this trend is believed to be genuine, its application is made tedious in practice as the means by which barriers were assessed was not uniform or well described. Therefore, it remains unclear as to how knowledge about barriers should be gained to inform the design of an intervention. The selection of interventions often relied on the judgement of the investigators and was not based on theories of behavioural or organizational change and the studies encompass a range of settings and specialties. Overall, as there are some doubts about the internal validity of the findings of the review and the description of interventions is non-transparent, external validity is difficult to assess. In addition, none of the trials included in the analysis was performed in an under-resourced setting. Therefore, the findings of this review have limited generalizability to low- and middle-income countries, where barriers may be different from those in developed countries, starting from access to valid research findings all the way to individual and organizational behaviour.
4.2 Implementation of the intervention

A more standardized approach to tailoring effective interventions may be relevant to both developed and developing countries. However, difficulties with access to information to prompt change and shortage of resources to implement change are more relevant to the under-resourced setting. This review did not show a statistically significant benefit in tailored interventions, although there was a beneficial trend, which could be taken as the basis for action until more evidence becomes available. For example, in primary and secondary care, the use of audit and feedback can be useful. If employed as an intervention for bringing about change, the audit loop should be completed within the framework of an ongoing cycle that re-audits practice to see if the lessons learnt or feedback from the initial assessment was effectively put to use to change practice or not. Audit meetings should involve a relevant multidisciplinary audience so that strategies to overcome barriers and bring about change can be agreed on by a range of key personnel involved in the provision of care. At all health-care levels, educational meetings should be designed to help create fora for dissemination to health-care professionals of current best evidence and good practice. Where the barrier to change is due to patients or community, consumer representatives could be invited to contribute to the development of solutions. Time should always be allowed to help embed the change. There is evidence that giving people time to adjust and prepare for change minimizes resistance (3).

4.3 Implications for research

Overall, a more standardized approach to the identification of barriers and transparency in the design of proposed interventions is recommended for future research.

References


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