

Evidence-led strategies to improve reproductive health are needed

Gülmezoglu AM, Schulz KF, Hofmeyr GJ, Langer A, Khanna R, Mittal S, Cheng L

UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, WHO, Geneva, Switzerland

It has been suggested that providing access to reliable health information is potentially the single most cost-effective and achievable strategy for improvement in health care [\(1\)](#). The underlying assumption here is that if health care workers have access to information, they will use it not only to improve their knowledge, but also apply it in their practice, and eventually this will lead to better health for those they serve. While it is difficult to counter the logic of these assumptions, the available experience shows that there is a long and uncertain path between information access and behaviour change.

Recently, the World Health Organization completed a cluster randomized trial that hypothesized that if health care workers were equipped with the skills, knowledge and equipment needed to use evidence-based knowledge in systematic reviews, this would lead to an uptake of that knowledge and change in their health care practices. The intervention in this trial involved: (i) training, through three interactive workshops, of the study participants in the use of *The WHO Reproductive Health Library* (RHL); provision of computers to the hospitals (in the labour ward) participating in the study to ensure easy access to RHL; and (iii) provision of continuous technical and scientific support (advice on how to implement change in practices) over a period of six months. The trial was conducted in 40 hospitals in Mexico and Thailand. We were not able to show clinically significant and consistent improvements in evidence-based practices included in RHL. We found that some practices such as the active management of the third stage of labour and baby-friendly care were already widely adopted. However, other practices showed large variations in implementation (antibiotics at caesarean section) and some life-saving practices for which there is compelling evidence to implement (magnesium sulfate for eclampsia) were not implemented in a large number of hospitals. There were some qualitative changes in corticosteroid use before preterm birth (<34 weeks) and antibiotic use at caesarean section in Mexico, and modest positive changes in episiotomy, labour companionship in Thailand.

In January 2004, WHO convened a technical meeting to review the evidence and experience related to implementation projects that used RHL in recent years [\(2\)](#). The evidence for behaviour change strategies in general was also reviewed. The evidence base to support many behaviour change strategies is weak. The effectiveness of these interventions may depend on interactions between the nature of the clinical activity needing change and the costs and benefits of change for the health care professional, patients and the organizations involved [\(3\)](#). In general, passive dissemination methods alone often fail to change clinician behaviour. Others, such as educational outreach, opinion leaders, audit and feedback and interactive training workshops seem to have small to moderate effects in some settings and under some conditions. Unfortunately, it is not easy to predict these settings through formal assessments of barriers to change before the intervention. Thus, there is insufficient

evidence to recommend specific strategies to be implemented at a national scale. Initiatives to change practice and improve health care outcomes often require programmes that integrate systems and organizational change, as well as interventions to target individual clinicians.

To develop and sustain the achievements already made in evidence based reproductive health, providers should focus on behaviour change methods relevant to the locality. For example, the experience gained through various accreditation projects in South Africa suggests that in those settings accreditation is generally viewed positively. Whilst some advocate formal strategies (measure practice, identify barriers, select intervention accordingly) to evaluate interventions to change clinician behaviour, others advocate a continued multi-faceted promotion of evidence-based care through undergraduate training and continuing education, and suggest ways to increase political commitment and involve international donors.

We think that information access is essential but not sufficient given the complexities of behaviour change. We should continue to develop and implement effective dissemination strategies for RHL and other evidence-based products. These efforts need to be accompanied by detailing of user profiles and patterns so that the products can be tailored accordingly and respond to the users needs. While these activities contribute to the overarching goal of improving health they should not be expected to influence practices and health outcomes on their own.

Regarding strategies to change behaviour, given the paucity of rigorous research in this field -especially in low and middle income countries, we call for appropriately designed studies to develop and evaluate novel approaches and known strategies that have not been evaluated rigorously.

REFERENCES

- [1.](#) Pakenham-Walsh N, Priestley C, Smith R. Meeting the information needs of health workers in developing countries. *British medical journal* 1996;(314):90.
- [2.](#) Evidence-led obstetric care. Strategies to change practice and policy. Meeting report. *World Health Organization, Geneva* 2004.
- [3.](#) Sanson-Fisher RW, Grimshaw JG, Eccles MP. The science of changing providers' behaviour: the missing link in evidence-based practice. *Medical journal of Australia* 2004;(180):205-206.