Adoption of evidence into practice: can change be sustainable?

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ABSTRACT

- Few studies have monitored change in professional practice over time to determine the sustainability of change. Research from other behavioural change literature shows that initial change is difficult to maintain, with reported relapse rates as high as 80%.
- Interventions most likely to succeed are based on a clear understanding of target behaviours and the environmental context. Facilitators and barriers are usually multifaceted and occur at a number of interrelated levels.
- The issue targeted for intervention must be clearly defined at the outset, so that antecedents, determinants and supporting mechanisms can be defined, suggesting points for intervention and strategies for initial and sustainable change.
- The target population's readiness to change is an important factor at both an individual and organisational level.
- In most cases, a combination of different interventions will be needed to achieve lasting change.

MJA 2004; 180: S66–S67

A NUMBER OF SYSTEMATIC REVIEWS of the effectiveness of different types of strategies for modifying professional practice[1-5] have concluded that there are no "magic bullets" for ensuring change; most interventions are effective under some circumstances and none are effective under all circumstances.

Few studies have monitored change over time to determine sustainability of any initial changes that have been achieved, particularly after active intervention has been withdrawn. Moreover, in studies that have assessed whether change has been maintained, the length of follow-up has been variable. For example, a systematic review of audit and feedback revealed that the follow-up period in studies of this kind varied from 3 weeks to 14 months.[6] The review reported mixed results in terms of sustained change: some studies found that the longer the period of follow-up the less likely any initial changes are maintained;[7] another study found sustained change in some outcomes, but not in others.[8] A consistent result was that if there had been no improvement from baseline levels of the target behaviour at short-term follow-up, there was no change at long-term follow-up.[9,10]

Other research literature on behavioural change and health promotion indicates that it is difficult to maintain behavioural change over time. Relapse rates as high as 80% have been reported in studies of lifestyle modification such as weight loss and increased physical activity.[11] Interventions that are most likely to succeed are based on a clear understanding of the targeted health behaviours and their environmental context.[12] Health behaviour is complex, and there have been numerous attempts to develop models and theories to help understand it. The reasoning behind the development of these models is that if we can understand the antecedents and factors that are supporting and reinforcing behaviours we wish to change, then we can more effectively target interventions.

No single theory dominates behavioural change and health promotion. Many concepts in different models overlap, and some aspects of behavioural-change models have a stronger evidence base than others. The most useful approach is to combine concepts from more than one theory to address a problem, and to bring these together in a comprehensive plan. A "slavish" devotion to testing models and theories can be counterproductive, as no model or theory will get it right all the time and, in practice, often a single theory explains only a small amount of the variance in targeted behaviours.

A fundamental principle in all theories of behavioural change is that the problem targeted for intervention must be clearly defined at the outset. There are three main reasons for this. First, it enables a systematic analysis of the antecedents, determinants and supporting mechanisms for the targeted problem, suggesting points for intervention and issues that need to be addressed to initiate and maintain change. Second, it allows the objectives and goals of the intervention to be specified in terms of measurable outcomes. Changes in the targeted problem, behaviours and outcomes must be measurable so that progress towards a sustainable outcome can be monitored. Third, it suggests the strategies for addressing the barriers to and motivators for initial and sustainable change. This type of systematic analysis should incorporate the knowledge and experience of the target group of health professionals, particularly relating to the environment in which the intervention will occur.

Applying these principles to interventions aimed at incorporating new research evidence into current practice should increase the likelihood that change will occur and will be sustained. Grol and Grimshaw[1] have proposed a general framework for changing practice based on theoretical approaches to translating evidence into clinical practice and on empirical evidence about the effectiveness of different

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strategies. They suggest that facilitators and barriers to sustainable change are usually multifaceted and may occur at a number of levels:

- factors related to the individual clinician, including his or her knowledge, skills, attitudes, habits and personality;
- issues related to the social context of care, including actual or perceived expectations of patients, colleagues and authorities;
- the organisational context, which may encompass available resources, organisational climate, structures and care processes; and
- public policy and legislation that regulate actions and practices.

It should be appreciated that these levels are not independent, but interrelated. For example, changing the organisational mechanics can force change in different individual behaviours and in the social context of care.

One aspect that needs to be considered at all levels is the readiness of the target population to change. Prochaska and Di Climente[13] have postulated five stages in behavioural change: a pre-contemplation stage in which the target population is not aware of the need to change; a contemplation stage in which the target group reflects on the advantages and disadvantages of changing its behaviours; a preparation stage in which concrete plans for change are made; an action stage in which behaviour starts to change; and a maintenance stage in which the target population decides whether to continue the new behaviour or to relapse to the former behaviour.

Goodman et al[14] have proposed a similar stepwise process for change at an organisational level. They suggest that initially the organisation must notice the problem, search for possible responses and evaluate possible alternatives. After deciding to adopt a course of action, this must be initiated and implemented within the system until it is firmly established. It is important to make these distinctions, as the focus of the intervention and the strategy chosen can vary depending on the readiness to change of the target population and the organisation. Varying levels of readiness to change can help explain why some interventions are effective in some circumstances but not others.

Strategies that focus on education and social influence seem to be particularly useful for stimulating acceptance by the target group at the contemplation stage. For example, expert outreach visitors and influential peers may be engaged to convince the target population and the organisation of the value of change.

Behavioural and organisational approaches may be most suitable at the implementation stage. These include reminder and feedback systems that create organisational and structural conditions for using the evidence, and policy changes that require some members of the organisation to change their work behaviours and relationships.

Maintaining change presents the biggest challenge. Organisational and structural modifications may be necessary. Institutionalising the change will mean including it in strategic plans, job descriptions and budgets so that it becomes a routine part of organisational operations. This could involve re-engineering care processes, changing tasks, devising regulatory measures and/or linking budgets to the desired performance.[1] By this stage, it is imperative that attention has been paid to the factors in the environment that can support and reinforce the targeted behaviour change. These reinforcers can be tangible and overt, such as target payments for desired professional practice, or intangible, such as the satisfaction that clinicians may experience when their patients improve under best-practice care.

In most cases, a combination of different interventions addressing the various identified obstacles and reinforcers will be needed to achieve lasting change.[1] Multifaceted interventions using a number of strategies are often, though not always,[6] likely to be more effective than single interventions.

Competing interests

None identified.

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