#94 - Models and approaches for building research implementation capacity and capability in health settings

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Theme
What works and how to do it: Evaluating implementation and impact

Objectives/aims
There is widespread recognition of the need to build the capacity and capability of health services and clinicians to implement research evidence in their context. This has led to the implementation of many capacity building initiatives. This review scoped the research describing and evaluating models and programs to build research implementation capacity and capability in health settings (*programs* hereafter).

The review objectives were to describe the:
1. Strategies and features of programs
2. Sources of funding for program implementation
3. Program sustainability features
4. Program evaluation approaches
5. Program outcomes reported

Methods
This review was conducted using the Joanna Briggs Institute's scoping review methodology. The review objectives, inclusion/exclusion criteria, and search

strategies were developed before searches of four databases (Ovid MEDLINE, CINAHL, Embase, and PsycInfo) were undertaken in December 2022. Each title/abstract was screened by two researchers. Full texts were reviewed by at least two researchers.

Main findings

Database searches yielded 10506 citations, of which 129 full texts were reviewed. Thirty-seven papers describing 34 programs were included. Programs were delivered in Australia, Canada, England, the United States of America, Sweden, Scotland, and Saudi Arabia, between 1999 to 2021. Programs frequently engaged a mix of healthcare and research professionals; however, some targeted specific clinical groups.

Across the 34 programs, more than 60 implementation capacity and capability building strategies were described. Strategies included workplace training, implementation support roles, research-practice collaboratives and partnerships, university education, co-design of research implementation capability building programs, and funding for research implementation. Approximately half of the programs involved a combination of two or more capability building strategies.

Almost all program descriptions rereferred to underpinning pedagogical principles or implementation theories. These included social/collaborative learning, experiential learning, didactic learning, mentoring, research or knowledge translation theory, behaviour change theory, self-efficacy theory, and debate. Program funding sources included research institutes, government health departments, and health services.

Mechanisms to promote the sustainability of programs were rarely described explicitly. Healthcare managers were described as integral to many of the programs and were involved in several different ways. Most programs were implemented at the individual, systems (e.g., Health Districts), or organisation-levels (e.g., health service), with fewer implemented at the team-level.

Twenty-six programs were formally evaluated. Data collection methods or sources included surveys, individual interviews, author reflections, focus groups, documentary analysis, attendance records, research outputs, and observed changes to clinical guidelines, practice, or networks. Several evaluation studies were informed

by theoretical models (e.g., Kirkpatrick model, Theoretical Domains Framework). Most did not describe a theoretical framework for evaluation.

Outcome measures included participant self-reported changes in research implementation knowledge, skills, or confidence; participant (qualitative) experiences of program; satisfaction or perceived quality of program; participant self-reported changes to clinical or implementation practice or guidelines; barriers and enablers of implementation; attendance or engagement with program; milestone achievement; observed behaviour change; perceptions of organisational culture; traditional research outputs; interest in program or new applications, and new or expanded collaborations. Given the variability of the outcomes measured and reported, it is difficult to compare outcomes across the programs.

These findings indicate that implementation capacity and capability building programs in health settings involve multiple strategies, with a view to affect learning and behavioural outcomes. Funding sources for the programs varied and there was little evidence of explicit measures to promote program sustainability. Program evaluations tended to focus on more superficial levels of impact with little evidence of the impact on the organisational context, and generally lacked theoretical rigour. Future research to identify the key outcomes of research implementation capability building programs at the various levels of impact is needed to inform optimal and consistent evaluation for comparison of outcomes across programs.