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Abstract

Background: Many general practitioners and primary health care practitioners lack research and evaluation skills. In response, the Australian Government has funded important capacity building initiatives.

Aim: To propose a conceptual model to assist these initiatives.

Model: Four groups of research involvement are suggested: nonparticipants; participating (as part of a research team); managing/training (either leading research, or in formal training to do so); and academic (with, or leading toward, a doctorate). We outline six guiding principles for research capacity building: 1) a whole system approach, 2) accommodating diversity, 3) reducing barriers to participation, 4) enabling collaboration, 5) mentoring, and 6) networking.

Conclusion: This model forms a framework to help plan and evaluate research capacity building initiatives.

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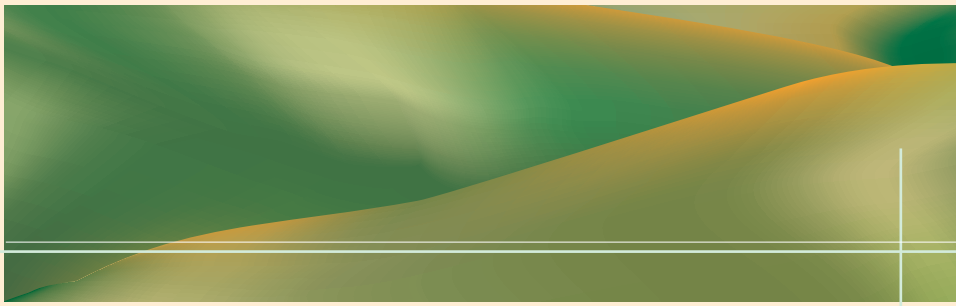

A conceptual model for capacity building in Australian primary health care research

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BACKGROUND Many general practitioners and primary health care practitioners lack research and evaluation skills. In response, the Australian Government has funded important capacity building initiatives.
AIM To propose a conceptual model to assist these initiatives.
MODEL Four groups of research involvement are suggested: nonparticipants; participating (as part of a research team); managing/training (either leading research, or in formal training to do so); and academic (with, or leading toward, a doctorate). We outline six guiding principles for research capacity building: 1) a whole system approach, 2) accommodating diversity, 3) reducing barriers to participation, 4) enabling collaboration, 5) mentoring, and 6) networking.
CONCLUSION This model forms a framework to help plan and evaluate research capacity building initiatives.

The increased professional and public awareness of the importance of quality and accountability in primary health care places new demands and responsibilities on individuals, organisations and the academic world. Research and evaluation play a crucial role in improving quality and accountability in primary health care. In Australia however, as in other countries such as the United Kingdom,[1] the research capacity of primary care providers is in urgent need of attention. The Wills Report[2] in 1999 identified the need to undertake research and to integrate research based knowledge into policy and practice, finding both the approach to capacity building in Australia fragmented, and a lack of capacity in significant areas, such as implementing evidence based medicine. These findings represent a big challenge to primary health care in Australia for two main reasons: the lack of an organised and systematic approach to developing research capacity, and the lack of resources in relevant university departments to address this need.[1]

The Australian Federal Government responded by recently allocating AUD50 million to develop national research capacity building strategies for primary health care. In 2000, a component of this strategy, the University PHC RED Initiative, funded 18 university departments of general practice and rural health to develop capacity building programs. The challenge of capacity building is now in the hands of many players, each developing regionally responsive approaches.

The key question is which capacity building approaches offer both value for money and the best outcomes? This question is not new.[3] Overseas, three key approaches are used: 'bottom up', 'top down', and 'whole system leadership'.[4] Not only are the potential value and outcomes of such programs debated, but researchers and policy advisers have pointed to the lack of an evaluative framework.[5–9] While it remains difficult to draw conclusions about the Australian context, it is clearly important that Australian programs are based on helpful conceptual models, adjusted to local needs, the outcomes of which are subjected to rigorous evaluation.[9] We aim to contribute to this process by proposing such a model for capacity building.

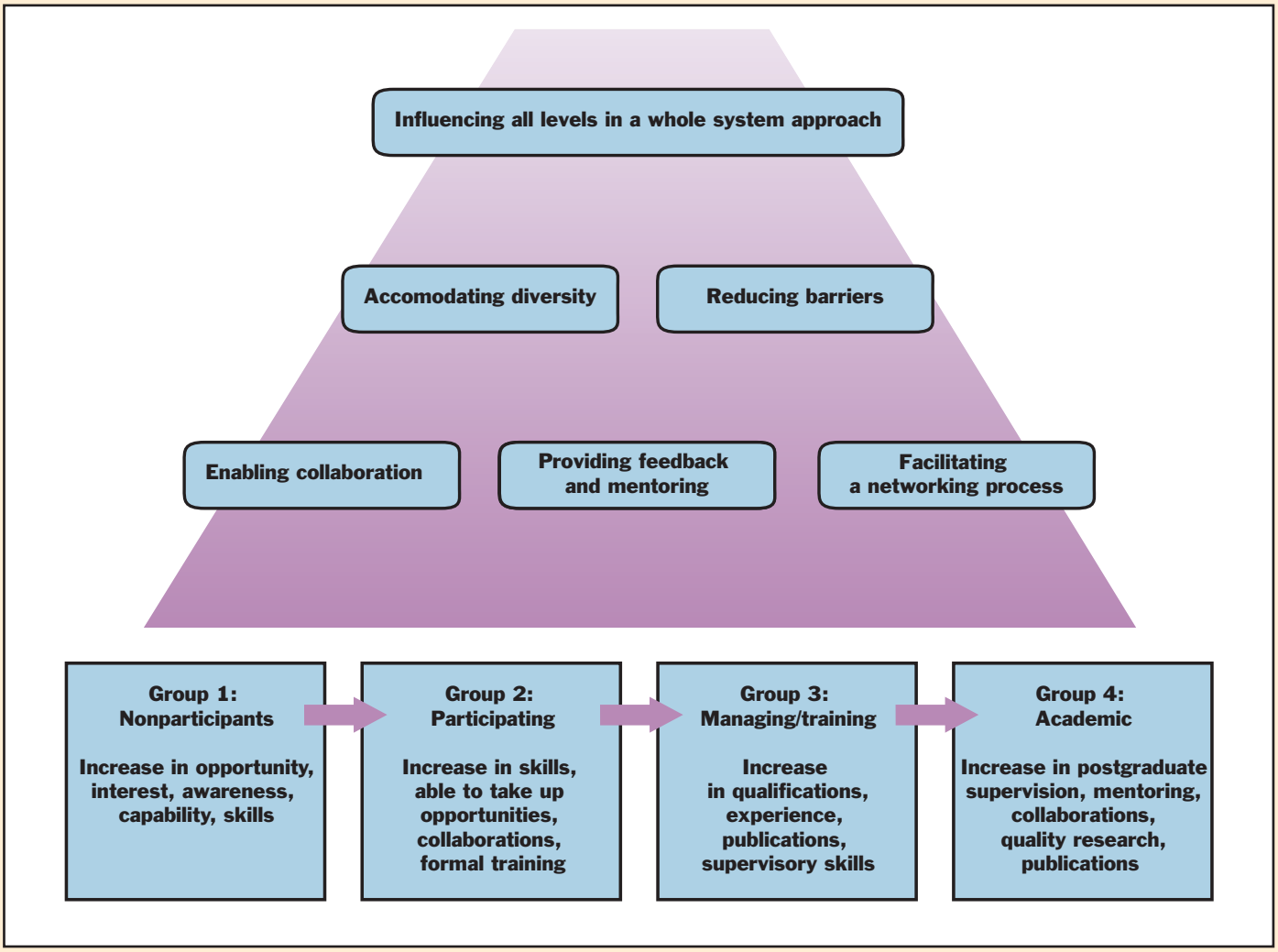

Figure 1. A conceptual model for capacity building

A conceptual model for capacity building

Who are the participants?

The model is aimed at the vast array of primary health care providers, students and consumers, including those working in clinical practice, community health, hospital or university arenas. Here we focus mainly on general practitioners.

The four groups

We propose that GPs fall into four groups according to their research and evaluation experience and expertise (Figure 1). Most will start in the first group, with successively fewer in each of the remaining groups.

Practitioners in group 1 are nonparticipants in research and evaluation, and represent the majority of Australian GPs, who have little interest in doing research.[10] Even when interested, many have insufficient time or support to undertake research, or even to apply evidence in their clinical practice.[11–13] For some, their experience of research may have been unsatisfactory and enough to prevent them re-entering the research arena.[14] The remaining 29% of Australian GPs interested in more research involvement are more likely to be recent graduates.[11]

Group 2 GPs are already participating to some degree. This may include evaluation, data collection (either of their own initiative or with other researchers), or supporting larger team projects. While some accept opportunities to develop their skills (for example attending training workshops), a lack of time, support, resources and knowledge remain significant barriers to furthering research capacity in this group.

Group 3 (managing/training) GPs manage their own research and evaluation projects, and may be undertaking formal training. While some obtain research grants, others are self funded. These active 'clinician researchers' are still constrained by time and funding. They also need supervisors or mentors,[11] a rare commodity both in Australian[2] and overseas general practice.[1]

Group 4 comprises academic practitioners undertaking research with, or

progressing toward, a doctoral qualification. They need time to write competitive grant applications, undertake research and publish, but these tasks must compete with increasing teaching and administrative responsibilities. Even though often the best qualified, they must also develop their own capacity as leaders and research scholars. Some may be in a position to supervise and mentor those in an earlier career phase but fewer have the required experience.[2]

Guiding principles of the model

The model provides a framework to support the development of research and evaluation capacity that integrates six important guiding principles as shown in Figure 1.

Influencing all levels in a 'whole system' approach

This principle is closely aligned with the whole system leadership approach.[4] Funding and resources are assigned to one or more groups simultaneously, with flexibility in responding to identified local needs and existing levels of capacity.[4] The whole system approach to capacity building allows practitioners at any stage to enter the system at an appropriate level, and then progress to a higher level of research capacity.

An example pertinent to GPs is resourcing education and training in research and evaluation skills at different levels. General practitioners in group 1 could be offered education in appraising and applying research evidence through workshops and courses, and hands on experience as part of a project team. This provides immediate benefits to practitioners through increased capability to translate research into clinical practice. The importance of such education in Australia, as stated in the Wills Report,[2] lies in closing the gap between those undertaking the research and potential users of the research.[2] At the other end of the spectrum, group 3 and 4 GPs could be offered bursaries or scholarships, or advice in producing grant applications. These latter strategies are more relevant to those considering a career with a greater emphasis on qualifications and formal research contributions.

Accommodating diversity

In our model, diversity refers to the differences in research interests, professional backgrounds, clinical practice, educational needs and learning styles of all practitioners. Accommodating this diversity should be reflected in the options provided for increasing capacity. The 'one size fits all' approach is not appropriate. It is especially important in primary health care settings where multiple disciplines are involved, each with their own concepts and approaches to research and evaluation. For GPs, the advantages of providing a range of capacity building initiatives include not only developing the professional interests of a particular individual but also broadening corporate research and evaluation knowledge in large practices, research teams or divisions of general practice.

Reducing barriers

As described above, there are many barriers to involvement of GPs in research or evaluation. For example, group 1 and 2 practitioners may be motivated to develop their research skills but lack structures that support and facilitate their participation.[11] Perceived barriers to research, including fee-for-service payment structures that do not recompense research activities, may also discourage further activity.[11] Our model therefore recognises explicitly that while needs within and between groups are different, all groups would benefit from easier routes to participation. Paid sequestered protected research time for practitioner involvement, such as through a bursary scheme, is a potential strategy. Benefits of this approach to an 'early career' researcher include immediacy and building on enthusiasm, together with peer support from the research team.

Enabling collaboration

Enabling collaboration between researchers in the same professional groups and especially in multidisciplinary teams is essential for the future of primary health care research. In general practice, collaboration can be fostered locally by such strategies as the joint appointment of a research fellow between a division of general practice and a university department. Such fellows' local knowledge of priorities, interests of peers, and personal contacts provides the groundwork for greater participation of others. In group 4, more extensive national collaborations between the 18 departments funded by the University PHC RED capacity building initiative may help to build a critical mass of researchers with like interests, and enable multicentre research to address important national primary care priorities.

Providing feedback and mentoring

Recommendations contained in both the Wills Report[2] and the General Practice Strategy Review,[15] identified mentoring as a key element in training and development of researchers to address the lack of an appropriate culture or system to support research activities.[2] General practitioners themselves support this principle. For example, Askew et al[11] have reported that Australian GPs wish to gain more access to academic mentoring to promote their research skills. Similarly, participants in an United States capacity building program for GPs cited such factors as personal attention, guidance, motivation and feedback from mentors as strengths of their program.[16]

A focus on feedback and mentoring is also designed to expand the pool of research experienced mentors and role models who

may influence the training of GP registrars. Earlier and more effective involvement of registrars in research and evaluation may be a powerful way of creating a long term and sustainable culture change.

Facilitating a networking process

Research networks have been hailed as 'research laboratories' as essential to advancing the scientific understanding of medical care as bench laboratories are to advancing knowledge in the basic sciences.[17] Since 1998, the National Health Service Executive in the UK has funded over 40 such networks under the umbrella of the United Kingdom Federation of Primary Care Networks. The networks have been instrumental in building capacity among practitioners in the UK.[1,18] In Australia, networks may initially be formed at a local level, but may eventually provide exciting opportunities for collaborations between networks and their members both inter- and intra-state.

Discussion

This paper proposes a conceptual model designed to address challenges in research capacity building. The model forms a framework for both planning capacity building initiatives and for evaluating them. Carefully structured evaluations are essential in determining which capacity building strategies would best suit Australian primary health care.

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Implications of this study for general practice

- There is not enough research, evaluation and development in general practice and primary health care.
- The Australian Government has responded by initiating a major capacity building program.
- We group GPs and others in primary health care by their research activity.
- We suggest six principles to guide capacity building strategies and evaluations.

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