

Grassroots research: How to have a stab at your first project and succeed

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BACKGROUND Current initiatives are aimed at building the capacity within Australian primary care to undertake high quality research and evaluation, including clinicians who are not primarily researchers.

OBJECTIVE To provide a simple guide to encourage practice based research projects.

TIPS AND ADVICE Be parsimonious with the amount of data collected, ensure the literature is searched first, keep the project as simple as possible, invest time in planning and managing the project, readily ask for help and advice, and make every effort to publish the results.

DISCUSSION A modest, carefully supported and systematic approach is recommended for increasing the chance of success and quality of the research.

Few of us enter general practice with the intention of leading research – something that seems to be an ‘ivory tower pursuit’ far removed from the practical, everyday business of medical practice. We may not know what we want to research, or how to find out how to actually do research.

Yet sometimes we get an irksome question about something clinical, and want to find an answer. If we are inexperienced at formulating and answering research questions, and isolated from those that are, we may find the whole exercise difficult, frustrating and unrewarding. Getting research published in peer reviewed journals seems very hard and far off.

Although serendipity and perseverance are helpful, it is more reliable to adopt a methodical approach. We hope to provide a basic guide for general practi-

tioners and other health care providers who wish to have a stab at a small practice based research project. Remember that the belief that you need to be incredibly intelligent to do research is a complete myth!

Common pitfalls and useful tips

COMMON PITFALL 1: Diving straight into collecting lots of data and then attempting to extract something meaningful from it afterward

USEFUL TIP: Define explicitly and concisely what you want to know and why you want to know it

What do you want to know and why do you want to know it? These are two useful questions that should prevent you collecting unnecessary data: the first question should be translatable into one

or more research questions.

A research question is a clear, unambiguous question able to be addressed through your research project. For example, a rural GP has become intrigued about her patient’s understanding about gout after recognising they are often quite different to hers. One possible research question arising from this research problem could be ‘where do patients in my practice with a diagnosis of gout get information about their disease?’ This question could be further refined to reflect the research methods selected for the project.

Collecting too much data is like using a huge trawling net, catching every fish indiscriminately, so that you have an impossibly large mess to pick over. Much more parsimonious and elegant is the correctly chosen fishing fly; targeting exactly the large brown trout that is wanted.

Asking research questions is iterative. Initially all you need is a starting point. Later these are refined following your literature search and through discussion with colleagues.

COMMON PITFALL 2: Not bothering with a literature review
USEFUL TIP: Find out what has been done in this field, and when, where and how

Spending hours sitting at the computer and reading is not appealing to everyone. But a literature review can become your best friend. It can help you refine the question, and identify information, tools and other resources to make the project easier. It will almost certainly increase your knowledge and understanding of the area; an educational activity worth QA&CPD points! It is also an essential prerequisite for gaining approval from an ethics committee for your project. Sometimes it saves even doing the project; it may have been already done before (although it might need re-doing if there are reasons for doubting the generalisability of previous work to a local setting).

You may actually find that what you want to do has been done before, and you can act on it immediately!

There are several resources (both articles and web resources) that can be helpful to undertaking a literature review.¹⁻³

COMMON PITFALL 3: Trying to change the whole world at once
USEFUL TIP: Keep the project to a realistic and manageable size

The initial list of potential research questions is often like small child's Christmas present list. It can be disheartening to discover that a research question is too complex to answer in one neat little project. Yet honing the question down to something manageable is essential.

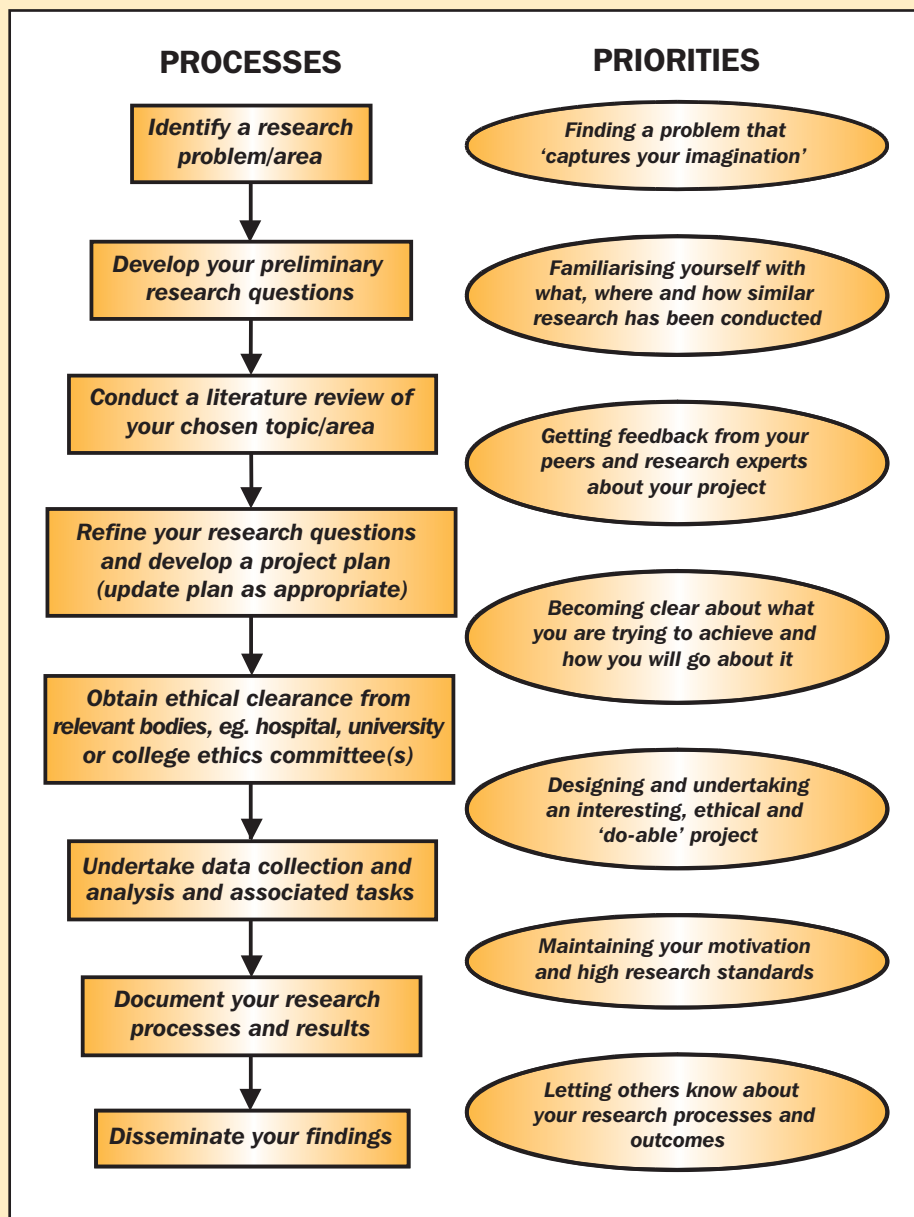


Figure 1. How to do a practice based research project: processes and priorities

This is also the moment to address how much time will be needed. Projects undertaken in spare time with no support or funding need to be small to succeed. So they should stick to answering just one or two research questions. 'Thinking small' is often 'thinking smart'. There are often data that have already been collected that can be analysed. If data must be collected it is worth making this as efficient as possible, for example, routinely during clinical practice.

COMMON PITFALL 4: Assuming the project will magically fit together and be finished when you need it to be
USEFUL TIP: Spend time managing and planning the project

Poorly planned projects take up more time. It is therefore very useful to draw up a research proposal with clearly stated objectives, methods and time line, remembering to not be over ambitious (Figure 1). It is worth factoring in two or

Table 1. PHCRED contacts

State/ territory	State coordinator	General practice	Rural health
NSW	Vanessa Traynor SYDNEY Phone: 02 9385 1448 Email: v.traynor@unsw.edu.au http://www.gp.med.usyd.edu.au/	Deborah Saltman BALMAIN Phone: 02 9818 1400 Email: deborah@gp.med.usyd.edu.au http://www.gp.med.usyd.edu.au/	Frances Boreland BROKEN HILL Phone: 08 8080 1208 Email: fboreland@doh.health.nsw.gov.au http://www.drh.med.usyd.edu.au/
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WA		Doug Pritchard CLAREMONT Phone: 08 9384 Email: lockgp@cyllene.uwa.edu.au http://www.meddent.uwa.edu.au/gp/index.htm	Ann Larson GERALDTON Phone: 08 9956 0200 Email: alarson@cucrh.uwa.edu.au http://www.cucrh.uwa.edu.au/

three months to gain ethics clearance. Coordination and administration (eg. record keeping, maintaining confidential documentation, telephoning and making appointments with subjects) takes longer than expected by new researchers. Make a 'guestimate' and then double it!

Despite having a plan, expect hiccups from unforeseen events, and try not to be too disheartened if you fall behind in it. Instead, update your plan periodically, balancing optimism with realism.

COMMON PITFALL 5: Not asking for other people's help or ideas

USEFUL TIP: Bounce your ideas off others

We GPs are good at defining and solving our own problems quickly. This can be disastrous for research. Even small research projects need benefit from the critical reflections of other researchers. It is worth making and maintaining contact with them, even if they appear to be strange and intimidating.

To do this, the Primary Health Care Research Evaluation and Development (PHCRED) Program, has given researchers within departments of general practice and rural health in each state a role to provide just this help (*Table 1*). The Royal Australian College of General Practitioners also provides a range of support services to its members. There are now an increasing range of bursaries, scholarships and fellowships available to GPs who are undertaking research.

COMMON PITFALL 6: Not publishing or sharing your results

USEFUL TIP: Disseminate your results

General practitioners often do not attempt to publish the results of practice based research. If the problem was worth researching in the first place, it is definitely worth letting others know.

There are many different ways to do

this. Start small and local: verbal presentations at practice or divisional meetings or articles in newspapers or community newsletters. You might seek out the opportunity to then present your work at a local research seminar or as a poster presentation at a conference. If feedback is constructive and positive, submit it to a refereed journal such as *Australian Family Physician*. Circulating drafts to colleagues for critical review improves the success rate.⁴ Good luck!

Conflict of interest: none.

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