The principle role of early career medical practitioners is service provision. However, throughout your career, you will have many roles and responsibilities, with various career pathways to choose from. The non-academic medical educator is recognised as a legitimate career choice, and opportunities to pursue this career pathway exist in the clinical environment (1,2). Medical educators take on leadership roles in teaching and curriculum development, and engage in educational scholarship. They specialise in the theory and science of education. For example, evaluating the effectiveness of teaching methods, and using this data to inform teaching and learning practice. Undertaking research projects in medical education involves engaging with new research approaches, methods and styles of writing.

What opportunities are available in medical education research?

The lay of the land in medical education is changing as the needs of adult learners shift, and health care delivery evolves, bringing with it many exciting opportunities in medical education. For example, the recent unprecedented disruption of COVID-19 has led to the rapid transition to online forums within many health education programs. Within faculty development, evidence suggests that the provision of online learning may work to increase knowledge, but be less effective in skills development (3). I’ve been working with a group of clinicians from local health districts to find creative solutions to adapt our Clinical Teacher Training program (4) to an ‘online only’ format, and collaborate on research in this space. Perhaps you have considered contributing to medical education research, but aren’t sure how to get started? A degree in medical education isn’t needed for success. As a junior doctor, you can make meaningful contributions. The first step is to connect with the medical educators or educationalists you would like to work with. Most teaching hospitals have onsite university clinical schools that will able to connect you with appropriate staff within the hospital and/or university sector.

How do I get started?

Mentorship and networks: identify a mentor or a network to join. Seek out mentorship from medical education researchers. Ask your peers or senior colleagues how they became involved. Both hospitals and universities have medical education networks that would welcome your involvement.

Opportunity: most medical education researchers enter the field serendipitously. After taking on teaching opportunities, they were offered the chance to contribute to research projects. If medical education research interests you, take advantage of
opportunities that come your way. You will likely find that the effort you put in will serve as a measure for the opportunities you continue to receive.

**Focus your research interests:** medical education researchers select specific areas of interest and have expertise in particular research methods. By taking part in education and research activities, you will discover what aspects you most enjoy. There is a smorgasbord of choices in topics, such as curriculum design, patient safety, faculty development, simulation, professionalism, work-based assessment, specific teaching pedagogies (e.g. Team-based learning, Problem-based learning, Case-based learning); and research methods, such as various qualitative, quantitative and mixed methods. Attend medical education seminars at your hospital and affiliated university to gain further insight to your local context.

**Formal training:** starting out, explore options available within your hospital or affiliated university. Staff are generally keen to engage early career medical practitioners, and value your insights. Many institutes will offer free professional development courses. For example, the University of Sydney offers the Clinical Teacher Training (CTT) program, which is free for those teaching at affiliated hospitals. If you are considering a long-term medical education centred career, explicit coursework and research pathways are available, such as professional certificates, masters, or PhDs in medical education.

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**What are the steps in planning a research project?**

Although you may already be familiar with medicine and science research, it will be beneficial to team up with a researcher with similar interests, who can provide specific guidance and supervision.

Have a general plan:

1) *Identify a topic of inquiry.* Be specific, and make sure it interests you. Conduct a literature search - what is known, where are the gaps?

2) *Formulate one to three research questions.* What do you want to know?

3) *Write your study protocol.* Select appropriate methodologies and methods. Consider what can be practically implemented, the timeframe available, the resources available, and ensure your study design is ethically sound. Also, consider the role of education theory in designing the research.
4) **Prepare an ethics application** in line with the university or local health service Human Research Ethics Committee requirements. This will normally entail detailed preparation of a study protocol, consent form, participant information statement, plus any surveys and interview guides.

Good planning and preparation will serve you well for the next steps: data collection, data analysis, and finally, writing up your paper, with a targeted medical education journal in mind.

**Setting yourself up for success.**

**Engage with the wider medical education community.** There are many excellent medical education organisations that offer a wealth of resources. Keep an eye out for upcoming conferences. Attending medical education conferences is a great way to network, meet people with similar interests, and keep up to date with current trends and best practice. Here’s two well-known organisations:

- Internationally renowned is ‘AMEE’ - The Association for Medical Education in Europe. [https://amee.org/home](https://amee.org/home)
- Locally, we have ‘ANZAHPE’ - Australian & New Zealand Association for Health Professional Educators. [https://anzahpe.org/](https://anzahpe.org/)

**Read medical education journals.** This will help you to gain a greater understanding of topics, current trends, research methods, and the different styles of writing. If there are medical education researchers you admire, see what they have written. Some excellent journals are:

- [The Clinical Teacher](https://onlinelibrary.wiley.com/journal/1743498x)
- [Academic Medicine](https://journals.lww.com/academicmedicine/pages/default.aspx)
- [Medical Education](https://onlinelibrary.wiley.com/journal/13652923)
- [Medical Teacher](https://www.tandfonline.com/toc/imte20/current)
- [BMC Medical Education](https://bmcmededuc.biomedcentral.com/)

**Search for grant and scholarship opportunities.** Universities and hospitals often offer education and research innovation grants and awards, and provide links to larger government grants - team up with others to apply. Medical education organisations
and journals frequently offer grants and awards that specifically target early career health professionals.

**Disseminate your work.** Make your work known through presentations, workshops and ultimately, publications. Send an abstract for a poster, an oral presentation or a workshop to a medical education conference. You will likely be surprised how supportive and encouraging the global medical education community is.

**Document** your achievements (both in teaching and research) to add to your medical education portfolio. In seeking an education pathway, you may be able to apply for a ‘clinical academic’ title with an affiliated university. To do this, you will need to evidence your contributions to teaching and research with your application.

## Why get involved in medical education research?

Research in medical education is of great importance to students, trainees, educational designers, institutes and society. In recent years, the structure and teaching methods used in medical curricula design have changed significantly, guided by changing healthcare systems, resources and education research findings. For example, since 2014 I have been involved in Team-based learning (TBL) research, which at the time was new to medical education in Australia. In collaboration with colleagues who had similar interests, we were able to demonstrate the value of TBL by publishing a systematic review (5), inviting an international TBL expert to run a workshop at The University of Sydney, carrying out a pilot study (6), and seeking innovation grant funding to extend this research (7). In 2017 I had the opportunity to contribute to curriculum redesign with the introduction of TBL to the early years of the medical program.8 This body of TBL research was conducted in collaboration with senior clinicians, early career medical practitioners, and medical students. It has led to many valuable opportunities to work in partnership nationally and internationally on curriculum design, faculty development and other TBL projects. Medical education research is gaining momentum and recognition, with many different ways to get involved and take on leadership roles. It is a rewarding and flexible area to work in, providing a meaningful way to connect with others across the university and healthcare sectors.

## Take home messages

- Actively seek out mentors in medical education research
- Engage with your hospital, university, wider medical education networks and organisations
- Attend medical education seminars, professional development courses, and conferences
- Read widely in medical education journals
- Collaborate, offer your help with projects, and plan projects to lead

## References


Related Blogs

- Structuring and facilitating a teaching session: key tips
- Getting involved in research
- Why Junior Medical Officers should get involved in research
- Being a student, becoming a teacher
- Working better together: 5 common traits of medicine and team sport

Related Podcasts

- Coaching: What is it and how is it different from mentoring?
- How to find and be a good mentor
- Teamwork
- Simulation – tips for junior doctors

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