



Mieke van Driel

# Growing research

## Involving students in Cochrane reviews

In 1992, the *Journal of the American Medical Association* published a paper launching a new paradigm for lifelong learning in medical practice – evidence based medicine (EBM).<sup>1</sup> Twenty years later EBM is known well beyond the field of clinical practice and has become an integral part of medical curricula worldwide.

While it is acknowledged that only some clinicians will move on to participating in or leading research projects,<sup>2</sup> it is hoped that all clinicians are users of research. But are we achieving this goal? Increasingly, medical students seem to view EBM training as a burden. Are we driving our future workforce away from research instead of encouraging more clinicians to take an active role?

Different medical schools have developed different models of exposing students to research. Some offer honours degrees for high performers and research electives, and in other schools all students are required to complete a research project. Reserving research experience to the 'lucky few' cuts out most and making it mandatory risks alienating many who might otherwise be willing to give it a try. So, how can we make research accessible and enjoyable for a wider range of students without jeopardising their academic performance in a busy curriculum? At Bond University in Queensland, students have an opportunity to taste from the research menu outside the curriculum at their own pace.

A number of our medical students, from all levels of training, are authoring Cochrane systematic reviews. These reviews of the literature bring together the available evidence, answering questions that are important to both patients and clinicians. In addition to this role in feeding the evidence base for clinical practice, reviews are an essential starting point for all research. An overview of the literature can identify gaps and help to refine one's own research question.

Mastering the art of literature reviewing is therefore an essential skill for all researchers.

Cochrane reviews are published in the online Cochrane Library and are freely accessible in Australia.<sup>3</sup> They are especially interesting in an educational setting as the review process is well structured with distinct milestones along the way. The protocol is published first, followed by the full review. This is an excellent way to keep students engaged as they can showcase two publications on their curriculum vitae.

So, how does it work? It all started with involving students in one of our own reviews and offering them co-authorship in return. This was a success. In 2009, the students presented the results at the Queensland conference of The Royal Australian College of General Practitioners and took home the prize for best student presentation. Building on this experience, evening sessions on systematic reviews and how to get involved were organised. The interest was overwhelming and the enthusiasm inspiring. Since 2009 more than 30 titles have been reviewed by 73 students and two general practice academic registrars, resulting to date in the publication of four full reviews and nine protocols with several more in the pipeline.

All Cochrane reviews are supported by 52 topic oriented groups. The Acute Respiratory Infections (ARI) group is hosted by the Faculty of Health Sciences and Medicine at Bond University, which gives students close and personal access to all levels of available support.<sup>4</sup> The students' impact is especially tangible in the ARI group, where a quarter of the group's 34 active protocols are now being updated by author teams involving students. Many of these are relevant to general practice. By updating abandoned reviews or adopting 'orphaned' protocols they are making an important contribution to keeping the body of evidence in the library up-to-date and relevant to clinicians and consumers.

Involving external clinicians as content experts on the teams has enhanced student learning,

sparked an interest in research, and strengthened ties between these clinicians and the medical school. Evidence of a potentially lasting effect is demonstrated by graduates who have continued producing reviews despite heavy workloads as interns and junior doctors. Only recently, Iain Chalmers, the father of the Cochrane Collaboration,<sup>5</sup> has connected us to students in the United Kingdom who are creating an international 'Cochrane student network'. Our students are keen to share experiences with peers worldwide. But this model can only be successful if students work in teams with experienced clinicians. Students at the undergraduate level have very little clinical experience and struggle with formulating questions to review. General practitioners and other health professionals involved in student teaching could feed the research agenda by suggesting relevant questions; and perhaps becoming involved in the review process themselves.

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