

# The Medical Student Academic: Are Medical Student Journals an answer?

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They is a final year medical student at Auckland City Hospital. He has been an editor for the NZMSJ for the past eight issues. Next year, as an Advisory Board member, he aims to continue improving the standing of the NZMSJ.

The clinician academic brings a much needed research-focused approach to the diagnosis and management of patients. However, this breed of doctors is in danger. The National Institutes of Health Physician-Scientist Working Group found that only 1.5% of all physicians in 2012 reported research as their primary activity; a statistically significant decline since 2003 ( $P < 0.0001$ ).<sup>1</sup> Clinical academic training pathways such as the Academic Foundation Programme provided by the UK National Health Service (NHS), may help address the growing problem.<sup>2</sup> In New Zealand, sustainable training pathways are a possible solution, and some models already exist in a few Australasian institutions.<sup>3</sup> To tackle this problem earlier, the medical education needs to give birth to the "Medical Student Academic"; one who is actively involved in clinical work/study, research, teaching and leadership. Medical Student Journals (MSJs) may be an answer.

Where possible, students completing research should be encouraged to publish in international journals. Yet, only 33% of all BMedSc(Hons) theses and 32% of all summer studentships are published.<sup>4,5</sup> Students with unpublished research should consider submitting their work to MSJs. The New Zealand Medical Student Journal (NZMSJ), like most MSJs, aim to bridge students from writing for medical school to publishing in international journals, ultimately promoting academic research and publishing. The benefits of publishing in MSJs are well recognised, including but not limited to, improving academic writing skills and familiarising students with the submission and peer-review process. Most MSJs (including the NZMSJ) involve expert peer-reviewers, who are senior academics and clinicians to ensure only manuscripts to the highest standard are published. Research supervisors should encourage promising Medical Student Academics to publish in MSJs.

Apart from submitting and publishing in MSJs, involvement in MSJs, as a student peer-reviewer or editor may improve academic skills. Doctors are expected to critically evaluate the evidence behind medical practice, present at journal club meetings, actively peer-review colleague manuscripts or make manuscript decisions for international journals. The undergraduate medical curriculum now incorporates evidence-based practice and critical appraisal which is a fundamental skill for a practising doctor. At the University of Auckland, clinical students critically appraise research articles based on a self-formulated case-based clinical question.<sup>6</sup> Similar assignments, such as the Clinical Question Project, also exist at the University of Otago. Applying these skills to appraise and critique fellow student colleagues' submissions will further develop skills in critical appraisal and peer-review. Medical students need these skills sooner rather than later, and MSJs can facilitate earlier development.

Medical students have a rich diversity of backgrounds, and some students can share skills gained during academic training. Two current NZMSJ team members completed a PhD before starting their medical training, and

one student is in the process of their MBChB-PhD programme at the University of Otago. Two students have completed a BMedSc(Hons) year while three students are near completion. Two student peer-reviewers will start their BMedSc(Hons) next year. Further, all NZMSJ student reviewers receive thorough guidelines and are sent the blinded reviews of other student and expert peer-reviewers. Some editors and reviewers are actively reviewing for international MSJs. NZMSJ editors report the experience they obtained as a student peer-reviewer has been incredibly useful when reviewing for mainstream international journals. Regardless of reviewing experience, MSJs are a supportive environment for the ambitious clinician academic. Just like most academic clinicians sit on multiple journals as peer-reviewers, Medical Student Academics should also peer-review for MSJs.

Being on the editorial board for an MSJ is no different to an international journal. In fact, small editorial teams manage MSJs. Apart from evaluating multiple reviews and making publication decisions on manuscripts, editors learn other valuable skills. They handle challenging administrative tasks, manage manuscripts through the peer-review process, engage in the commercial aspects of the journal, and liaise with the designer and printer. The involvement in an MSJ as an editor gives a better understanding of the number of gears involved in a large-scale international journal. After participation in an MSJ, stepping up to an editorship position in an international journal may provide contextual benefit.

MSJs provide students with opportunities to get involved in submitting, publishing, critical appraisal, peer review, and editorship. Early involvement in this area of academia may help medical students evolve into clinician academics. However, the real impact of an MSJ in today's undergraduate medical education needs more research. In New Zealand, is the NZMSJ a solution to increase the number of Clinician Academics?

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