

## Engaging current and potential medical students in clinical research during an elective hospital attachment: a qualitative study

AD Sihoe, H Clin, LK Shing

AD Sihoe, Associate Consultant, Faculty of Medicine, The University of Hong Kong, Hong Kong

### Background and Purpose

Exposure of medical students to research may increase the probability of their pursuing postgraduate research involvement<sup>1,2</sup>. However, whether research exposure should ideally be mandatory (student-passive) or extra-curricular (student-proactive) is unclear<sup>2-4</sup>. Furthermore, whether research exposure has any impact on students interested in but not yet studying medicine is also unknown. This study examines a strategy of actively offering clinical research opportunities to current and potential medical students during an ostensibly clinical hospital attachment.

### Methodology

The Cardiothoracic Surgery unit of a university teaching hospital regularly hosts high school and medical students from around the world as part of a volunteer hospital attachment program or medical school elective. All students are offered the opportunity to participate in clinical research by the unit. Over a 5 year period, 29 students volunteered and all 29 became co-authors on one or more of 22 original research abstracts culminating from their work that have been presented at international medical conferences. Fifteen students completed an online questionnaire-based survey.

### Results

The commonest motivations for participating in research were the possibility of improving their resumé and of learning research skills. Most students spent 40-60% of their time during the attachment on clinical research. Although most students had no expectations of performing research when commencing their attachment, 92% reported that the research work 'somewhat' or 'significantly' enhanced their experience. Based on their experiences, >50% students gave a score of  $\geq 7$  (scale of 1-10) when asked whether they agreed that: they wanted to pursue research in their future careers; all medical students should acquire research skills; research data can aid clinical care; and they learned about working with others through research. All students 'agreed' or 'strongly agreed' that medical schools should provide research opportunities for students, although support for mandatory research within the curriculum was mixed. Students most appreciated having a good supervisor and being treated as mature independent adults, but some would have preferred more contact with clinical medicine alongside the research work. If offered, 92% of the students were 'likely' or 'very likely' to want to participate in clinical research with the unit again.

### Discussion and Conclusions

Offering non-mandatory clinical research opportunities during an elective hospital attachment to students interested in or already studying medicine may enhance their interest in pursuing research in future and understanding of evidence-based medicine. Even with limited or no prior clinical exposure, students can appreciate the significance of their studies and can produce good quality clinical research.

### References

1. Segal, S., Lloyd, T., Houts, P.S., et al. The association between students' research involvement in medical school and their postgraduate medical activities. *Academic Medicine*, 1990, 65: 530-533.
2. Reinders, J.J., Kropmans, T.J.B., Cohen-Schotanus, J. Extracurricular research experience of medical students and their scientific output after graduation. *Medical Education*, 2005, 39: 237.
3. Zier, K., Stagnaro-Green, A. A multifaceted program to encourage medical students' research. *Academic Medicine*, 2001, 76: 743-747.
4. Houlden, R.L., Raja, J.B., Collier, C.P., et al. Medical students' perceptions of an undergraduate research elective. *Medical Teaching*, 2004, 26(7): 659-661.