Do interns publish findings of their scholarly research projects?

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Studies addressing junior medical staff involvement in research have been a focus of investigation for upwards of two decades; has the new generation of young medical practitioners come any closer to a satisfactory level of research engagement?

The Accreditation Council for Graduate Medical Education in the US requires active participation in “a scholarly activity” by residents. Similarly, Guidance by the UK’s General Medical Council stipulates that it is unethical to forego the dissemination of findings of well-conducted research.

Scholarly research projects may encompass quality-improvement audits as well as hypothesis-driven research. Dissemination of research findings thereof can take the form of a conference presentation or peer-reviewed publication.

While departmental and conference presentations of results from research projects serve as acceptable means of conveying findings to colleagues and interested audiences, their scope remains limited—both temporally (ie, time of presentation) and spatially (ie, location of presentation). Publishing research findings remains the quintessential method by which scientific findings are communicated and may reflect a higher degree of academic rigour.

There exists a plethora of data on resident (or registrar) involvement in research activities. Data on intern involvement, on the other hand, are relatively sparse. Internship remains a steep learning curve for most newly qualified doctors. Stretching over one to two years, these inexperienced doctors are expected to participate in educational activities including independent study, acquire new clinical skills as well as undertake scholarly research.

Current state of intern research

Several studies have repeatedly shown that a majority of medical students are eager to be involved in research. Data on research involvement and dissemination by interns, however, are lacking. In one of the very few studies on intern research, Fancher et al found that engaging interns in a research rotation significantly increased published articles, conference presentations and research awards.

We recently examined research output by interns in two cohorts: one from New Zealand and the other from Saudi Arabia. In brief, an investigation of publication output of a required research component (mandatory audit or research project during a general medicine rotation) by interns from a single-centre in New Zealand uncovered only two publications over a five-year study period. Surveys of self-selecting 56 interns from Saudi Arabia yielded 10 publications over a two-year period. Although useful rough estimates, the results of these studies should be interpreted with caution as the two studies differ in several significant ways.

First, New Zealand interns were required to complete a mandatory research component during a limited time-frame (13–14 weeks). Research by Saudi interns, on the other hand, was self-initiated and spanned over a longer period (up to two years). In addition, whereas the study of New Zealand interns was a systematic review of an available database, interns from Saudi Arabia were invited to participate in the study survey. It is possible that interns with the most research experience (56 out of a possible 400) self-selected to participate in our study.
Barriers and solutions

Previous studies have identified several barriers to research involvement by residents/registrars—these can also be extrapolated to apply to interns. A useful framework to think about such barriers is whether they are modifiable (and may therefore be solved) or non-modifiable (eg, lack of pre-internship research experience). The focus below is on modifiable barriers.

Lack of time is one of the most commonly cited reasons to conducting research by medical trainees. How this affects the quality and ‘publishability’ of research is unknown. However, provision on protected research time has failed in and of itself to produce an appreciable increase in research productivity in several studies. Lack of intellectual (eg, statistics), mentoring and financial support also represents a significant barrier to many. Finally, lack of interest in or loss of motivation towards research can be obstacles to intern research. One of the main motives of medical students to engage in research is career progression and enhancing chances to get into residency. It is conceivable that once medical students attain a position in their training of choice (ie, become interns), the drive is lost.

Addressing these barriers requires an orchestrated approach involving multiple parties. Medical educators ought to instil the passion for research from the early phases of a medical student’s career. Certainly, intrinsic interest in research has been shown to be one of the most powerful predictors of continued research involvement as medical trainees progress through their careers. In addition, instituting purpose-designed research programmes with the required supports to lessen intellectual and financial barriers can go a long way in helping junior trainees carry and publish high-quality research. Finally, providing interns with protected research time, with adequate infrastructure and support in place, may circumvent problematic time limits and clashes identified in earlier studies.

Competing interests:
Nil.

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