Final Report (due July 15 2009)

"Peer review assessments in junior doctors – development and pilot".

Project background & Aims:
All medical professionals require assessment of their own skills throughout their practice life. Peer review is a performance appraisal tool that uses reviewers who are professional equals.

This project builds on experience to cooperatively develop and pilot an approach to peer review in the work place with junior doctors (JMOs/interns). With substantial experience in running peer review for medical students over four years, this ANU-based project takes an established model, engages junior doctors in developing suitable assessment criteria and pilots and trials an assessment cycle.

Recent growth in the explicit teaching of personal and professional development has highlighted the paucity of assessment approaches to measure junior doctors' professional behaviour. Epstein and Hundert (2002) noted that current assessments reliably test core knowledge and skills, commonly using multi-choice examinations to evaluate factual knowledge and abstract problem solving and standardised patient assessments of physical examination, technical and communication skills. However, they also observed that assessment formats under-emphasized some important domains including professionalism, and there is limited evidence that peer rating has been widely adopted as an assessment tool. It was argued that peer review assessment would:

- Develop competent junior medical practitioners with the required industry-ready professional attributes including the ability for self reflection
- Engage junior doctors in learning about the central place of Safety and Quality in health care and about healthy responses to medical error
- Provide timely and meaningful feedback to guide junior doctor development
- Assist health services to recognize the developmental needs of junior doctors
- Complement the existing appraisal strategies in health services
- Establish sustainable self assessment practices to follow junior doctors through professional life.

The **aims** of this junior doctor peer review overall were, therefore, to:
- Generate suitable education materials to introduce and implement peer review amongst groups of junior doctors
- Develop a peer review tool, in concert with the target population, and trial it in average rather than extraordinary hospital settings
- Evaluate the process of implementing peer review and interns' responses to it

- Suggest best practice guidelines for the introduction of peer review in this group

The project was divided into roughly four, overlapping, stages as detailed in the quarterly reports, that utilized diverse research **methods** and strategies:
- group discussion to generate criteria and a format for a peer review tool
- interactive seminars and consultations with interns at two hospitals
- the design of both a hardcopy and on-line version of the peer review tool
- develop a procedure for implementation of the peer review process
- pilot and trial the tool
- post-test interviews and written feedback from participants
- data analysis (quantitative and qualitative)
- dissemination of results and conclusions.

In the first stage of the project, the goals and outcomes were:
- Finalize the ethics approvals
- Appoint a project officer
- Establish a reference group of relevant personnel
- Conduct information and workshop sessions
- Engage JMOs and the project's reference group in the construction of relevant peer assessment criteria
- Draw up and prepare for the pilot stage of the project

The second stage involved:
1. Continued engagement of JMOs and the project's reference group in the construction of relevant peer assessment criteria
2. Conducting information and workshop sessions at Canberra Hospital and Southern Health (Melb)
3. Preparing procedures for and implementation of the pilot stage of the project
4. Subsequently analyzing data and processes related to the pilot stage
5. Conducting interviews or focus groups re: the efficacy of the pilot project and procedures etc.
6. Prepare for and commence the trial stage of the project

For the third stage:
1. Ongoing confirmation and finalization of the criteria and other pertinent questions to be completed for the trial stage in light of feedback from the pilot study.
2. Further education sessions were held at Canberra Hospital and Southern Health for Supervisors of JMOs, Registrars and for JMOs about PR and the project.
3. The PR tool was uploaded to a website for on-line access.
4. The trial stage commenced in late August 2008, ie. in the 4th semester of JMOs' schedule at Southern Health.

5. By November 2008 some data were returned and preliminary analysis commenced.

In the fourth and final stage:
1. Statistical analysis of data from the first trial at Southern Health continued.
2. One paper based on results to date was formulated, based on the data and/or the project's process and value of PR.
3. In light of problems and issues encountered (see below), a second paper's framework was discussed.
4. A secondary trial of the survey was undertaken at ACT Health during the 2nd rotation of (early) 2009, preceded by education sessions held at Canberra Hospital for JMOs and administrative staff about PR and the project.
5. Results from the ACT Health stage were received and incorporated into the second paper (in progress).

Outcomes:
Almost all of the goals noted above in each stage were met:
- Formulation of a PR tool based on wide consultation and a pilot study
- Generation of material for the teaching about PR (ie. lecture/seminar material, relevant literature)
- Participation rate of 85% at Southern Health in the trial
- Feedback from participants and statistical results incorporated into a first paper, including an evaluation of the process, recommendations and value of PR, submitted to Medical Education Journal, and application to attend AMEE Medical Conference submitted.

Findings:
1. The most salient and statistical finding was that the Registrar was considered the most suitable person to assess JMOs. However, it was also evident from the data that other JMOs (peers) could also play an important role. The implications of this finding is that Registrars and others could be better integrated into the existing formal procedures.
2. A second key finding issuing from the process was that significant resistance amongst JMOs at two locations was encountered. There are several implications of this---see below.
3. A third salient finding was that, despite #2 above, most respondents rated peer review as somewhat valuable and useful, but raised issues of training in peer review, validity of some criteria, and its formative vis-à-vis summative nature and value.

Problems encountered:
Generally, throughout the project we encountered substantial resistance or reluctance on the part of interns to engage in either the project and/or peer review.

This first occurred in ACT Health in early 2008, and thus the trial stage there was postponed and the project's focus shifted to Southern Health. At this latter location greater administrative support was available to implement the trial and, upon their recommendation, the implementation of the peer review tool was changed from voluntary to a mandatory Quality Assurance exercise. An 85% participation rate was achieved.

Based on this experience, we again launched a voluntary-based peer review process at ACT Health, preceded by concerted efforts to inform interns and solicit their co-operation. Despite our efforts and support from administrative staff at Canberra Hospital, we attained only a 3% participation rate (ie. 2 interns of 60).

While the failure to gather reliable and valid data from the ACT Health stage appears to be a failure, serendipitously it provided insight into what we began to formulate as an "intern-al" culture amongst interns, which could have implications for the successful implementation of peer review, particularly if it were voluntary vis-à-vis mandatory.

Despite quite a good participation rate at Southern Health, we had also encountered significant resistance to engage at various stages of the process and overall; indeed, given that peer review was mandatory at Southern Health, one would have expected a 100% compliance rate; when we shifted to a voluntary basis at ACT Health, it confirmed our suspicions that there were underlying factors that generated such resistance amongst this professional group of interns across two locations which could be hypothesized in terms of organizational theory, subculture theory, or volunteerism vis-à-vis mandatory.

As a result of these events and ideas, recommendations were included into our first paper to the effect that peer review may need to be formally incorporated into assessment processes as a mandatory requirement but in consultation with stake holders and following better education amongst medical professions about peer review and its value.

Our second paper explores and develops the source of non-participation (resistance), both in terms subcultural theory and organizational theory, ie. where change is implemented in organizations it may be resisted, and the source and legitimacy of that resistance is to be found in a somewhat identifiable subculture. Our recommendation, therefore, is to understand that source and nature of resistance to be able to address it through education and, most importantly, to find ways in which the very subculture can be utilized to effect change.

Overall, then, while we encountered some poor participation rates in the study, we did not find this as a problem, but as valuable instruction of how peer review could work amongst interns, and what needs to be done in order to make it work.

As surmised above, we have implicitly or explicitly generated the following recommendations:

1. That peer review could work, and was assessed of some value by participants, if it were mandatory
2. That even if it were mandatory and part of the formal process of assessment amongst interns (or other professionals), education about peer review and its value and process is required
3. That it is important to understand the sources of resistance and how to overcome them
4. That one means of overcoming resistance to change is to utilize the subcultural resources within an organization to effect change.
5. That Registrars and others be formally integrated into the assessment of interns.
6. That training be provided to those who do assess interns.
7. That the validity and purpose of criteria and questions be further examined.

In **conclusion**, we found that peer review could be a valuable means of providing a more rounded assessment of interns, as part of a larger assessment portfolio, but required more concerted education about its value and process.

Attached:

Final First paper (and tables), **Assessment of a Peer Review Process among Junior Medical Officers at an Australian Hospital**

Draft abstract, second paper. INTERN CULTURE---INTERNA-*AL* RESISTANCE

In this paper we explore the development of a possible subculture amongst interns; what may be some of its key features; if and how medical curricula or structures may create or foster such a subculture; and the implications of forming a subculture, particularly that it may provide a basis for resistance to much outside of it. We suggest that this subculture quickly develops within the first year of medical school, in particular, but may have antecedents to entry into medical school. As this subculture develops, we hypothesize that it coheres strongly during medical internship. To argue this case, we report on a study to engage interns in the trialing of peer review (PR) of professional performance at two major hospitals in Australia. [Mathews, P. W., Owen, C., Ramsey, W., Corrigan, G., Bassett, M. & Wenzel, J. Medical Education XXX 2009]. The resistance to our attempts to implement a PR trial illustrates several issues identified in previous literature but which have largely been untheorized in terms of their source.

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References.
Epstein, RM. & Hundert, EM Defining and assessing professional competence. *The Journal of the American Medical Association.* 2002; 287: 226-235