Articles you may enjoy (abstracts and links) August 2015

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NOTE: I still cannot get the external link to work for Academic Medicine; you will need to log into the library– apologies!

1. How clinical supervisors develop trust in their trainees: a qualitative study (and commentary by Andrea Gingerich of the IMP)
2. Why physicians teach: giving back by paying it forward
3. Core Concepts in Remediation: Lessons Learned from a 6-Year Case Study (Supplementary material includes a 56-page “Cognitive Skills Handbook” for struggling students)
4. Hedging to save face: a linguistic analysis of written comments on in-training evaluation reports
5. Identifying potential engaging leaders within medical education: The role of positive influence on peers.
6. Physical isolation with virtual support: Registrars’ learning via remote supervision (includes Canadian residents as study subjects)
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8. Should Medical Students Track Former Patients in the Electronic Health Record? An Emerging Ethical Conflict.
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10. Learning Curves in Health Professions Education (UBC author: Rose Hatala)

1. How clinical supervisors develop trust in their trainees: a qualitative study
Karen Hauer, Sandra Oza, Jennifer Kogan and 5 others
Medical Education August 2015 volume 49, (8) 783-795

Abstract

Context
Clinical supervisors oversee trainees’ performance while granting them increasing opportunities to work independently. Although the factors contributing to supervisors’ trust in their trainees to conduct clinical work have been identified, how the development of trust is shaped by these factors remains less clear.

Objectives
This study was designed to determine how supervisors develop and experience trust in resident (postgraduate years 2 and 3) trainees in the clinical workplace.

Methods
Internal medicine in-patient supervisors at two institutions were interviewed about the meaning and experience of developing trust in resident trainees. Transcribed data were coded and analysed using a phenomenographic approach.
Results
Forty-three supervisors participated. Supervisors characterised the meaning of trust from the perspectives of trainee competence and leadership or from their own perspective of needing to provide more or less supervision. Supervisors initially considered trust to be usually independent of prior knowledge of the resident, and then used sources of information about trust to develop their judgements of trust. Sources, which incorporated inference, included supervisors’ comparisons with a standard, direct observation of the trainee as a team leader or care provider, and stakeholder input from team members, patients and families. Barriers against and accelerators to trust formation related to the resident, supervisor, resident–supervisor relationship, context and task. Trust formation had implications for supervisors’ roles, residents’ increasingly independent provision of care, and team functioning.

Conclusions
From a general starting point, supervisors develop trust in residents informed by observation, inference and information gathered from the team and patients. Judgements of trust yield outcomes defined by supervisors’ changing roles, the increasingly independent provision of care by residents, and team functioning. The implications of these findings for graded resident autonomy aligned with learning needs can inform the design of training environments to enable readiness for unsupervised practice.

To read more:


The Commentary on this article is from Andrea Gingerich in the NMP: (no abstract available)


2. Why physicians teach: giving back by paying it forward
Yvonne Steinert and Mary Ellen Macdonald
Medical Education August 2015 volume 49, (8) 773-782

Abstract:
Context
Despite the pace and intensity of the in-patient clinical setting, physicians carve out time for teaching medical students and residents.

Objectives
The goal of this study was to explore what it means for physicians to teach students and residents in the in-patient setting.

Methods
We conducted semi-structured interviews with 15 practising physicians from the departments of internal medicine, surgery and paediatrics in three university teaching hospitals at McGill University, using an interpretive phenomenological methodology.
Results
Five themes elucidated the meaning of teaching for physicians in the in-patient setting: (i) teaching was perceived as an integral part of their identity; (ii) teaching allowed them to repay former teachers for their own training; (iii) teaching gave them an opportunity to contribute to the development of the next generation of physicians; (iv) teaching enabled them to learn, and (v) teaching was experienced as personally energising and gratifying. Participants were morally and socially motivated to give time and effort through teaching (e.g. to pay forward their own privilege and thereby help to develop the next generation); teaching also gave them a sense of personal fulfilment (e.g. by allowing them to mould young minds and leave a legacy).

Conclusions
This study holds a number of implications for medical education with relevance to the recruitment and retention of clinical teachers, recognition of clinical teaching, and evidence-informed faculty development. The findings also suggest that teaching in an academic setting can bring joy and fulfilment to practising physicians.

To read more:

3. Core Concepts in Remediation: Lessons Learned from a 6-Year Case Study
Kalman Winston
Medical Science Educator September 2015, volume 25 (3) pp. 307-315

Abstract
With widening access and increased class sizes, there is potential for more struggling medical students in need of remediation. This paper draws together lessons learned from a 6-year case study of a successful remedial intervention programme at one institution. When considered alongside a broad range of literature, this work illuminates some core concepts that can inform remediation work in other contexts. Remediation programmes need to foster development of students’ affective, cognitive and metacognitive practices if they are to have long-term effects. The course design should be context dependent, collaborative, adaptive, and combine the learning of process and content. Participation should be mandatory, so that students can meet regularly in small stable groups over an extended period of time, with an experienced faculty facilitator who presses the group to pay close attention to the language of medicine. Successful remediation also needs a systemic perspective with clear administrative support, and transparent policies and expectations for all stakeholders. With all the essential ingredients in place, students who have struggled can go on to become successful, mindful physicians.

To read more: (“Electronic Supplementary Material” at the end includes a 56-page “Cognitive Skills Handbook” for struggling students)
4. Hedging to save face: a linguistic analysis of written comments on in-training evaluation reports
Shiphra Ginsburg, Cees van der Vleuten, Kevin W. Eva and Lorelei Lingard
Advances in Health Sciences Education; Theory and Practice

Abstract

Written comments on residents' evaluations can be useful, yet the literature suggests that the language used by assessors is often vague and indirect. The branch of linguistics called pragmatics argues that much of our day to day language is not meant to be interpreted literally. Within pragmatics, the theory of 'politeness' suggests that non-literal language and other strategies are employed in order to 'save face'. We conducted a rigorous, in-depth analysis of a set of written in-training evaluation report (ITER) comments using Brown and Levinson's influential theory of 'politeness' to shed light on the phenomenon of vague language use in assessment. We coded text from 637 comment boxes from first year residents in internal medicine at one institution according to politeness theory. Non-literal language use was common and 'hedging', a key politeness strategy, was pervasive in comments about both high and low rated residents, suggesting that faculty may be working to 'save face' for themselves and their residents. Hedging and other politeness strategies are considered essential to smooth social functioning; their prevalence in our ITERs may reflect the difficult social context in which written assessments occur. This research raises questions regarding the 'optimal' construction of written comments by faculty.

To read more:


5. Identifying potential engaging leaders within medical education: The role of positive influence on peers
Barret Michalec, J. Jon Veloski, Mohammadreza Hojat & Mark L. Tykocinski
Medical Teacher 2015 37 (7) 677-683.

Abstract

Background: Previous research has paid little to no attention towards exploring methods of identifying existing medical student leaders.

Aim: Focusing on the role of influence and employing the tenets of the engaging leadership model, this study examines demographic and academic performance-related differences of positive influencers and if students who have been peer-identified as positive influencers also demonstrate high levels of genuine concern for others.
Methods: Three separate fourth-year classes were asked to designate classmates that had significant positive influences on their professional and personal development. The top 10% of those students receiving positive influence nominations were compared with the other students on demographics, academic performance, and genuine concern for others.

Results: Besides age, no demographic differences were found between positive influencers and other students. High positive influencers were not found to have higher standardized exam scores but did receive significantly higher clinical clerkship ratings. High positive influencers were found to possess a higher degree of genuine concern for others.

Conclusion: The findings lend support to (a) utilizing the engaging model to explore leaders and leadership within medical education, (b) this particular method of identifying existing medical student leaders, and (c) return the focus of leadership research to the power of influence.

To read more:

6. Physical isolation with virtual support: Registrars’ learning via remote supervision (includes Canadian residents as study subjects)
Susan M. Wearne, Pim W. Teunissen, Tim Dornan & Timothy Skinner
Medical Teacher July 2015 vol 37 (7) 647-652

Abstract
Purpose: Changing the current geographical maldistribution of the medical workforce is important for global health. Research regarding programs that train doctors for work with disadvantaged, rural populations is needed. This paper explores one approach of remote supervision of registrars in isolated rural practice. Researching how learning occurs without on-site supervision may also reveal other key elements of postgraduate education.

Methods: Thematic analysis of in-depth interviews exploring 11 respondents’ experiences of learning via remote supervision.

Results: Remote supervision created distinctive learning environments. Respondents’ attributes interacted with external supports to influence whether and how their learning was promoted or impeded. Registrars with clinical and/or life experience, who were insightful and motivated to direct their learning, turned the challenges of isolated practice into opportunities that accelerated their professional development.
**Discussion:** Remote supervision was not necessarily problematic but instead provided rich learning for doctors training in and for the context where they were needed. Registrars learnt through clinical responsibility for defined populations and longitudinal, supportive supervisory relationships. Responsibility and continuity may be as important as supervisory proximity for experienced registrars.


7. **Twelve Tips for Teaching Social Determinants of Health in Medicine**
Iveris L. Martinez, Isis Artze-Vega, Alan L. Wells, Jorge Camilo Mora & Marin Gillis
*Medical Teacher* 2015 37(7) 647-652

**Abstract:**

**Background:** There has been a recent movement towards social accountability in medical schools, which includes integrating the social, economic, and cultural determinants of health into the curriculum. Medical schools and their guiding bodies have met this challenge of educating future physicians to provide effective care to diverse populations with varying response and successes. Because these topics have not been systematically taught in most medical school curricula, strategies are needed to teach them alongside clinical sciences.

**Aim and method:** We provide 12 tips on how to teach social determinants of health and cultural competency to undergraduate medical students. These recommendations are based on a review of the literature and our experience in developing and delivering a longitudinal course over the last five years.

**Conclusion:** Medical students must be taught to think critically about the social and cultural issues impacting health, and the intersection with the basic biology and clinical skills. Teaching social determinants of health in medicine requires keeping the material concrete and applicable. Educators must engage students in active learning strategies, reflection, and focus on how to make the material relevant to the clinical care of patients.


8. **Should Medical Students Track Former Patients in the Electronic Health Record? An Emerging Ethical Conflict.**
Brisson, Gregory E. MD; Neely, Kathy Johnson MD; Tyler, Patrick D. MD; Barnard, Cynthia MBA, MSJS
*Academic Medicine* August 2015 Volume 90 (8) pp. 1020-1024

**Abstract:** Medical students are increasingly using electronic health records (EHRs) in clerkships, and medical educators should seek opportunities to use this new technology to improve training. One such opportunity is the ability to “track” former patients in the EHR, defined as following up on patients in the EHR for educational purposes for a defined period of time after they have left one's direct care. This activity offers great promise in clinical training by enabling students to audit their diagnostic impressions and follow the clinical history of illness in a manner not possible in the era of paper charting. However,
tracking raises important questions about the ethical use of protected health information, including concerns about compromising patient autonomy, resulting in a conflict between medical education and patient privacy. The authors offer critical analysis of arguments on both sides and discuss strategies to balance the ethical conflict by optimizing outcomes and mitigating harms. They observe that tracking improves training, thus offering long-lasting benefits to society, and is supported by the principle of distributive justice. They conclude that students should be permitted to track for educational purposes, but only with defined limits to safeguard patient autonomy, including obtaining permission from patients, having legitimate educational intent, and self-restricting review of records to those essential for training. Lastly, the authors observe that this conflict will become increasingly important with completion of the planned Nationwide Health Information Network and emphasize the need for national guidelines on tracking patients in an ethically appropriate manner. (C) 2015 by the Association of American Medical Colleges.

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9. Learn, See, Practice, Prove, Do, Maintain: An Evidence-Based Pedagogical Framework for Procedural Skill Training in Medicine
Sawyer, Taylor DO, MEd; White, Marjorie MD, MPPM, MEd; Zaveri, Pavan MD, MEd; and 7 others
Academic Medicine: August 2015 Volume 90 (8) pp. 1025-1033

Abstract: Acquisition of competency in procedural skills is a fundamental goal of medical training. In this Perspective, the authors propose an evidence-based pedagogical framework for procedural skill training. The framework was developed based on a review of the literature using a critical synthesis approach and builds on earlier models of procedural skill training in medicine. The authors begin by describing the fundamentals of procedural skill development. Then, a six-step pedagogical framework for procedural skills training is presented: Learn, See, Practice, Prove, Do, and Maintain. In this framework, procedural skill training begins with the learner acquiring requisite cognitive knowledge through didactic education (Learn) and observation of the procedure (See). The learner then progresses to the stage of psychomotor skill acquisition and is allowed to deliberately practice the procedure on a simulator (Practice). Simulation-based mastery learning is employed to allow the trainee to prove competency prior to performing the procedure on a patient (Prove). Once competency is demonstrated on a simulator, the trainee is allowed to perform the procedure on patients with direct supervision, until he or she can be entrusted to perform the procedure independently (Do). Maintenance of the skill is ensured through continued clinical practice, supplemented by simulation-based training as needed (Maintain). Evidence in support of each component of the framework is presented. Implementation of the proposed framework presents a paradigm shift in procedural skill training. However, the authors believe that adoption of the framework will improve procedural skill training and patient safety.

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10. Learning Curves in Health Professions Education (UBC author: Rose Hatala)
Pusic, Martin V. MD, PhD; Boutis, Kathy MD, MSc; Hatala, Rose MD, MSc; Cook, David A. MD, MHPE
Academic Medicine: August 2015 Volume 90 (8) pp. 1034-1042
Abstract:
Learning curves, which graphically show the relationship between learning effort and achievement, are common in published education research but are not often used in day-to-day educational activities. The purpose of this article is to describe the generation and analysis of learning curves and their applicability to health professions education. The authors argue that the time is right for a closer look at using learning curves—given their desirable properties—to inform both self-directed instruction by individuals and education management by instructors. A typical learning curve is made up of a measure of learning (y-axis), a measure of effort (x-axis), and a mathematical linking function. At the individual level, learning curves make manifest a single person’s progress towards competence including his/her rate of learning, the inflection point where learning becomes more effortful, and the remaining distance to mastery attainment. At the group level, overlaid learning curves show the full variation of a group of learners’ paths through a given learning domain. Specifically, they make overt the difference between time-based and competency-based approaches to instruction. Additionally, instructors can use learning curve information to more accurately target educational resources to those who most require them. The learning curve approach requires a fine-grained collection of data that will not be possible in all educational settings; however, the increased use of an assessment paradigm that explicitly includes effort and its link to individual achievement could result in increased learner engagement and more effective instructional design.

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