Articles you may be interested in (abstracts and links) June 2015

[Links are included for both UVIC and UBC library websites as I understand it is easier for some of you to access the UBC site. Links for the articles are at the bottom of the abstract. When you click on a link, you will first be directed to either the UVIC or UBC library website; in both cases, your ID and password are identical to the one you use to access your email.]

1. The impact of adopting EHRs: how losing connectivity affects clinical reasoning

2. In the eyes of residents good supervisors need to be more than engaged physicians: the relevance of teacher work engagement in residency training

3. The Professional Competencies Toolkit: teaching reflection with flash cards (IMP authors)

4. The teacher–student partnership: exploring the giving and receiving of feedback (IMP authors)

5. Twitter as a tool for communication and knowledge exchange in academic medicine: A guide for skeptics and novices

6. Identifying the bad apples (editorial)

7. Faculty development for educators: a realist evaluation

8. A Schematic Representation of the Professional Identity Formation and Socialization of Medical Students and Residents: A Guide for Medical Educators

9. Professional Identity (Trans)Formation in Medical Education: Reflection, Relationship, Resilience

10. Balancing care and teaching during clinical activities: 2 contexts, 2 strategies

1. **The impact of adopting EHRs: how losing connectivity affects clinical reasoning**
   Lara Varpio, Kathy Day, Pat Elliot-Miller et al.
   Medical Education May 2015 49 (5), p. 476-486

ABSTRACT

Context
As electronic health records (EHRs) are adopted by teaching hospitals, educators must examine how this change impacts trainee development.

Objectives
We investigate this influence by studying clinician experiences of a hospital's move from paper charts to an EHR. We ask: how does each chart modality present conceptions of time and data interconnections? How do these conceptions affect clinical reasoning?

Methods
*This two-phase, longitudinal study employed constructivist grounded theory. Data were collected at a paediatric teaching hospital before (Phase 1), during and after (Phase 2) the transition from a paper chart to an EHR system. Data collection consisted of field observations (146 hours involving 300 health care providers, 22 patients and 32 patient family members), think-aloud (*n *= 13) and think-after (*n *= 11) sessions, interviews (*n *= 39) and document retrieval (*n *= 392). Theories of rhetorical genre studies and visual rhetoric informed analysis.*

Results
In the paper flowsheet, clinicians recorded and viewed patient data in chronologically organised displays that emphasised data interconnections. In the EHR flowsheet, clinicians viewed and recorded individual data points that were largely chronologically and contextually isolated. Clinicians reported that this change resulted in: (i) not knowing the patient's evolving status; (ii) increased cognitive workload, and (iii) loss of clinical reasoning support mechanisms.

Conclusions
Understanding how patient data are interconnected is essential to clinical reasoning. The use of EHRs supports this goal because the EHR is a tool for collecting dispersed data; however, these collections often deconstruct data interconnections. Where the paper flowsheet emphasises chronology and interconnectedness, the EHR flowsheet emphasises individual data values that are largely independent of time and other patient data. To prepare trainees to work with EHRs, the ways of thinking and acting that were implicitly learned through the use of paper charts must be made explicit. To support clinical reasoning, medical educators should provide lessons in connectivity – the chronologically framed data interconnections upon which clinicians rely to provide patient care.

Read full article: http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12665/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12665/full

And the commentary: Losing *connectivity* when using EHRs: a technological or an educational problem?

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12722/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12722/full

2. In the eyes of residents good supervisors need to be more than engaged physicians: the relevance of teacher work engagement in residency training

Renée A. Scheepers, Onyebuchi A. Arah, Maas Jan Heineman and Kiki M. J. M. H. Lombarts
Advances in Health Sciences Education May 2015, Volume 20, issue 2 pp 441-455

Abstract

During their development into competent medical specialists, residents benefit from their attending physicians' excellence in teaching and role modelling. Work engagement increases overall job performance, but it is unknown whether this also applies to attending physicians' teaching performance and role modelling. Attending physicians in clinical teaching practice take on roles as doctors and teachers. Therefore, this study (a) examined levels of attending physicians' work engagement in both roles, and (b) quantified the relationships of both work engagement roles to their teaching performance and role model status. In this multicenter survey, residents evaluated attending physicians' teaching performance and role model status using the validated System for Evaluation of Teaching Qualities. Attending physicians self-reported their work engagement on a 7-point scale, separately for their roles as doctors and teachers, using the validated 9-item Utrecht Work Engagement Scale. In total, 549 (68 %) residents filled out 4,305 attending physician evaluations and 627 (78 %) attending physicians participated. Attending physicians reported higher work engagement in their doctor than in their teacher roles (mean difference: 0.95; 95 % CI 0.86–1.04; $p < 0.001$). Teacher work engagement was positively related to teaching performance (regression coefficient, B: 0.11; 95 % CI 0.08–0.14; $p < 0.001$), which in turn was positively associated to role model status (B: 1.08; 95 % CI 0.10–1.18; $p < 0.001$). In the eyes of residents, good supervisors need to be more than engaged physicians, as attending physicians with high teacher work engagement were evaluated as better teachers.

Read full article:

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-014-9538-0/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-014-9538-0/fulltext.html

3. The Professional Competencies Toolkit: teaching reflection with flash cards

Patricia Seymour and Maggie Watt
Medical Education May 2015; 49 (5), p. 518

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12718/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12718/full

4. **The teacher–student partnership: exploring the giving and receiving of feedback**

Teresa Rodriguez ,Yi A Liu and Kiran Veerapen
Medical Education May 2015 49 (5), p. 536-37

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12707/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12707/full

5. **Twitter as a tool for communication and knowledge exchange in academic medicine: A guide for skeptics and novices**
Esther K. Choo, Megan L. Ranney, Teresa M. Chan et al
Medical Teacher May 2015, Vol. 37, No. 5 , Pages 411-416

Abstract

Twitter is a tool for physicians to increase engagement of learners and the public, share scientific information, crowdsource new ideas, conduct, discuss and challenge emerging research, pursue professional development and continuing medical education, expand networks around specialized topics and provide moral support to colleagues. However, new users or skeptics may well be wary of its potential pitfalls. The aims of this commentary are to discuss the potential advantages of the Twitter platform for dialogue among physicians, to explore the barriers to accurate and high-quality healthcare discourse and, finally, to recommend potential safeguards physicians may employ against these threats in order to participate productively.

Read full article:

http://informahealthcare.com.ezproxy.library.uvic.ca/doi/full/10.3109/0142159X.2014.993371

http://informahealthcare.com.ezproxy.library.ubc.ca/doi/full/10.3109/0142159X.2014.993371

6. Identifying the bad apples
Geoff Norman[1] Advances in Health Sciences Education Theory and Practice 2015 **20**(2) 299-303

Editorial (no abstract) – on the perils of trying to predict professionalism

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-015-9598-9/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-015-9598-9/fulltext.html

7. Faculty development for educators: a realist evaluation
Olanrewaju O Sorinola, Jill Thistlethwaite, David Davies and Ed Peile
Advances in Health Sciences Education Theory and Practice 2015 **20**(2) pp.385-401

Abstract

The effectiveness of faculty development (FD) activities for educators in UK medical schools remains underexplored. This study used a realist approach to evaluate FD and to test the hypothesis that motivation, engagement and perception are key mechanisms of effective FD activities. The authors observed and interviewed 33 course participants at one UK medical school in 2012. An observed engagement scale scored participants' engagement while interviews explored motivation for attendance, engagement during the course and perception of relevance/usefulness. Six months later, using the realist framework, 12 interviews explored impact on learning outcomes/behavioural changes, the mechanisms that led to the changes and the context that facilitated those mechanisms. The authors derived bi-axial constructs for motivation, engagement and perception from two data-sources. The predominant motivation was individualistic rather than altruistic with no difference between external and internal motives.

Realist evaluation showed engagement to be the key mechanism influencing learning; the contextual factor was participatory learning during the course. Six months later, engagement remained the key mechanism influencing learning/behavioural changes; the context was reflective practice. The main outcome reported was increased confidence in teaching and empowerment to utilise previously unrecognised teaching opportunities. Individual motivation drives FD participation; however engagement is the key causal mechanism underpinning learning as it induces deeper learning with different facilitating contexts at various time points. The metrics of motivation, engagement and perception, combined with the realist framework offers FD developers the potential to understand 'what works for whom, in what context and why'.

Read full article:

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-014-9534-4

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-014-9534-4

8. **A Schematic Representation of the Professional Identity Formation and Socialization of Medical Students and Residents: A Guide for Medical Educators**

Cruess, Richard L. MD; Cruess, Sylvia R. MD; Boudreau, J. Donald MD; Snell, Linda MD, MHPE; Steinert, Yvonne PhD
Academic Medicine 2015 Jun;90(6):718-25.

Abstract

Recent calls to focus on identity formation in medicine propose that educators establish as a goal of medical education the support and guidance of students and residents as they develop their professional identity. Those entering medical school arrive with a personal identity formed since birth. As they proceed through the educational continuum, they successively develop the identity of a medical student, a resident, and a physician. Each individual's journey from layperson to skilled professional is unique and is affected by "who they are" at the beginning and "who they wish to become."

Identity formation is a dynamic process achieved through socialization; it results in individuals joining

the medical community of practice. Multiple factors within and outside of the educational system affect the formation of an individual's professional identity. Each learner reacts to different factors in her or his own fashion, with the anticipated outcome being the emergence of a professional identity. However, the inherent logic in the related processes of professional identity formation and socialization may be obscured by their complexity and the large number of factors involved.

Drawing on the identity formation and socialization literature, as well as experience gained in teaching professionalism, the authors developed schematic representations of these processes. They adapted them to the medical context to guide educators as they initiate educational interventions, which aim to explicitly support professional identity formation and the ultimate goal of medical education—to ensure that medical students and residents come to "think, act, and feel like a physician."

Read full article:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.15.1b/ovidweb.cgi?&S=LAJGFPEFKIDDOHNFNCKKKCFBOEAPAA00&Link+Set=S.sh.31.32.35%7c13%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.15.1b/ovidweb.cgi?&S=LAJGFPEFKIDDOHNFNCKKKCFBOEAPAA00&Link+Set=S.sh.31.32.35%7c13%7csl_10

9. **Professional Identity (Trans)Formation in Medical Education: Reflection, Relationship, Resilience**
Wald, Hedy S.
Academic Medicine June 2015 Volume 90(6), p 701-706

ABSTRACT

A fundamental goal of medical education is the active, constructive, transformative process of professional identity formation (PIF). Medical educators are thus charged with designing standardized and personalized curricula for guiding, supporting, and challenging learners on the developmental professional identity pathway, including the process of socialization. The author of this Commentary provides an overview of foundational principles and key drivers of PIF supporting the being, relating, and doing the work of a compassionate and competent physician. Key elements of PIF including guided reflection, use of personal narratives, integral role of relationships and role modeling, and community of practice are viewed through various lenses of PIF theory and pedagogy. Questions informing the PIF discourse are raised, including interprofessional identity considerations. Central emergent themes of reflective practice, relationships, and resilience are described as supporting and reciprocally enhancing PIF. Overarching lessons include attending to learners' and faculty's PIF within a developmental trajectory of the professional life cycle; process and content within PIF curricula as well as learners' individual and collective voices; curricular/extracurricular factors contributing to socialization, self-awareness, development of core values, and moral leadership; integrating PIF domains within pedagogy; faculty development for skilled mentoring and reflective coaching; and implementing resilience-promoting skill sets as "protective" within PIF. Outcomes assessment including the impact of curricula on learners and on patient-centered care can be challenging, and potential next steps toward this goal are discussed.

Read full article:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.15.1b/ovidweb.cgi?&S=LAJGFPEFKIDDOHNFNCKKKCFBOEAPAA00&Link+Set=S.sh.22.23.26%7c8%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.15.1b/ovidweb.cgi?&S=LAJGFPEFKIDDOHNFNCKKKCFBOEAPAA00&Link+Set=S.sh.22.23.26%7c8%7csl_10

10. **Balancing care and teaching during clinical activities: 2 contexts, 2 strategies**
Dominique Piquette, Carol-Anne Moulton and Vicki Leblanc
Journal of Critical Care August 2015 (early e-pub); 30 (4); pp. 678-684

Abstract

Purpose
The goal of this study was to better understand how clinical supervisors integrate teaching interactions with medical trainees into 2 types of clinical activities in the critical care setting: multidisciplinary rounds and medical crises.

Methods
We conducted a qualitative, observational study based on an ethnographic approach. We observed the teaching interactions among clinical supervisors and medical trainees during 12 multidisciplinary rounds and 74 medical crises in 2 academic hospitals. Grounded theory methods (theoretical sampling and saturation, inductive thematic coding, and constant comparison) were used to analyze data.

Results
Two models of integration of teaching interactions into clinical activities are described: the in series model, typical of multidisciplinary rounds and characterized by well-structured learning bubbles uninterrupted by patient care, and the in parallel model, common during medical crises and involving multiple, short learning flashes intricately related to and frequently interrupted by patient care. By adopting a model over the other, supervisors appeared to adapt to 2 contexts that differed in terms of priority, supervisor's understanding of events, and social context of interactions. Each model presented complementary opportunities and limitations for learning.

Conclusions
Modern views of medical apprenticeship and clinical teaching need to take into account the specific clinical context in which learning occurs. Teaching interactions that differ in structure and content in response to changing clinical circumstances could impact learning in unique ways. Learning outcomes resulting from different models of integration of teaching into clinical activities need to be further explored.
Read full article:
http://www.sciencedirect.com.ezproxy.library.uvic.ca/science/article/pii/S0883944115000842
http://www.sciencedirect.com.ezproxy.library.ubc.ca/science/article/pii/S0883944115000842