

## January 2017 Articles you may enjoy (abstracts and links)

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2. **International consensus statement on the assessment of interprofessional learning outcomes**
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### **1. Entrustable professional activities (EPAs for teachers in medical education: Has the time come?)**

Charlene Dewey, Gersten Jonker, Olle ten Cate and Teri Turner

**Medical Teacher** published online December 27, 2016

#### **Abstract**

On a daily basis, patients put their trust in the healthcare system for safe and high-quality healthcare. However, what evidence do we have as an educational community that our supervising faculty members are competent to fulfill this responsibility? Few, if any, requirements exist for faculty members to have continuous professional development in the field of medical education. Many faculty “love to teach”, however, this love of teaching does not make them competent to teach or assess the competence of trainees whom they supervise. Faculty members who have a significant role as a teacher in the clinical setting should be assessed with regards to their baseline competence in applicable teaching EPAs. When competence is reached, an entrustment decision can be made. Once proficient or expert, a statement of awarded responsibility (STAR) may be granted. The time has come to reach beyond the “standards” of the old adage “see one, do one, teach one” in medical education. In this personal view, the authors outline an argument for and list the potential benefits for teachers, learners, and patients when we assess clinical teachers using EPAs within a competency-based medical education framework.

**To read more:**

<http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2016.1270447>

<http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2016.1270447>

**2. International consensus statement on the assessment of interprofessional learning outcomes**

Gary D. Rogers, Jill E. Thistlethwaite, Elizabeth S. Anderson, et al

**Medical Teacher** published online December 26, 2016

**Abstract**

Regulatory frameworks around the world mandate that health and social care professional education programs graduate practitioners who have the competence and capability to practice effectively in interprofessional collaborative teams. Academic institutions are responding by offering interprofessional education (IPE); however, there is as yet no consensus regarding optimal strategies for the assessment of interprofessional learning (IPL). The Program Committee for the 17th Ottawa Conference in Perth, Australia in March, 2016, invited IPE champions to debate and discuss the current status of the assessment of IPL. A draft statement from this workshop was further discussed at the global All Together Better Health VIII conference in Oxford, UK in September, 2016. The outcomes of these deliberations and a final round of electronic consultation informed the work of a core group of international IPE leaders to develop this document. The consensus statement we present here is the result of the synthesized views of experts and global colleagues. It outlines the challenges and difficulties but endorses a set of desired learning outcome categories and methods of assessment that can be adapted to individual contexts and resources. The points of consensus focus on pre-qualification (pre-licensure) health professional students but may be transferable into post-qualification arenas.

**To read more:**

<http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2017.1270441>

<http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2017.1270441>

**3. Prelicensure Simulation-Enhanced Interprofessional Education: A Critical Review of the Research Literature**

Palaganas, Janice C. RN, NP, PhD, ANEF; Brunette, Veronique MD, FRCPC; Winslow, Betty RN, PhD  
**Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare** Issue: Volume 11(6), December 2016, p 404–418

**Abstract:**

Summary Statement: This review explores the state of prelicensure interprofessional education (IPE) using simulation-based education (SBE) by examining studies that use SBE for prelicensure IPE through a critical review of the research literature. We focus particularly on studies that included experiential SBE with reported measures and formal IPE with prelicensure participants from at least 2 health care professions. Fifty-four studies met criteria. We explore these studies, providing a compilation of information (e.g., educational, simulation, and research methods used; outcome measures reported; and demographics of learner groups), identifying themes that may affect learning, as well as surfacing challenges and gaps in the field. The quality and rigor of the existing literature is inadequate to confidently determine factors that affect learning through simulation-enhanced IPE. We suggest that more rigorous research criteria be included in future studies and a list of reporting items be provided, where future publications can enhance knowledge to guide best practice in simulation-enhanced IPE.

**To read more:** (As this is on Ovid, you may need to access library first)

<http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.23.1b/ovidweb.cgi?&S=BENGFJJKCNDKIDENCHKEDIBPHHEAA00&Link+Set=S.sh.22.23.26%7c5%7csl10#TT3>

<http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.23.1b/ovidweb.cgi?&S=BENGFJJKCNDKIDENCHKEDIBPHHEAA00&Link+Set=S.sh.22.23.26%7c5%7csl10#TT3>

#### **4. Faith-Based Medical Education** (a critique of CBME)

Cynthia Whitehead and Ayelet Kuper

**Advances in Health Sciences Education** First on-line December 30, 2016

No abstract as this is a commentary.

**To read more:**

<http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-016-9748-8>

<http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-016-9748-8>

#### **5. Misalignments of purpose and power in an early Canadian interprofessional education initiative**

Whyte, S., Paradis, E., Cartmill, C. et al.

**Adv in Health Sci Educ** (2017). Published on-line January 3, 2017

##### **Abstract:**

Interprofessional education (IPE) has been widely incorporated into health professional curricula and accreditation standards despite an arguably thin base of evidence regarding its clinical effects, theoretical underpinnings, and social implications. To better understand how and why IPE first took root, but failed to grow, this study examines one of the earliest documented IPE initiatives, which took place at the University of British Columbia between 1960 and 1975. We examined a subset of

110 texts (academic literature, grey literature, and unpublished records) from a larger study that uses Critical Discourse Analysis to trace the emergence of IPE in Canada. We asked how IPE was promoted and received, by whom, for what purposes, and to what effects. Our analysis demonstrates that IPE was promoted as a response to local challenges for the Faculty of Medicine as well as national challenges for Canada's emerging public healthcare system. These dual exigencies enabled the IPE initiative, but they shaped it in somewhat divergent ways: the former gave rise to its core component (a health sciences centre) and the latter its ultimate purpose (increasing the role of non-medical professions in primary care). Reception of the initiative was complicated by a further tension: nurses and allied health professionals were sometimes represented as independent experts with unique knowledge and skills, and sometimes as assistants or substitutes for medical doctors. We relate the successes and frustrations of this early initiative to particular (mis)alignments of purpose and relationships of power, some of which continue to enable and constrain IPE today.

**To read more:**

<http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-016-9746-x>

<http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-016-9746-x>

**6. When I say autoethnography**

Laura Farrell

**Medical Education** Volume 51, Issue 1, January 2017, pp. 11-12

No abstract as this is a short piece

**To read more:**

<http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13216/full>

<http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13216/full>

**7. Practical trials in medical education: linking theory, practice, and decision-making**

Martin Tolsgaard, Kulamakan Kulasegaram, Charlotte Ringsted

**Medical Education** Volume 51, Issue 1, January 2017, pp. 22-30

**Abstract:**

**Context**

Concerns have been raised over the gap between education theory and practice and how research can contribute to inform decision makers on their choices and priorities. Little is known about how educational theories and research outcomes produced under optimal conditions in highly controlled settings generalise to the real-life education context. One way of bridging this gap is applying the concept of practical trials in medical education. In this paper we elaborate on characteristics of practical trials and based on examples from medical education we discuss the challenges, limitations and future directions for this kind of research.

## Current State

Practical trials have the overall aim of informing decision makers. They are carried out in real-life settings and are characterised by (i) comparison of viable alternative education strategies, (ii) broad inclusion criteria regarding participants across several settings and (iii) multiple outcome measures with long-term follow-up to evaluate both benefits and risks. Questions posed by practical trials may be proactive in applying theory in the development of educational innovations or reactive to educational reforms and innovations. Non-inferiority or equivalence designs are recommended when comparing viable alternatives and the use of crossover designs, cluster randomisation or stepped wedge trial designs are feasible when studying implementations across several settings. Outcome measures may include variables related to learners, teachers, educational administration, quality of care, patient outcomes and cost.

## Conclusions

Practical trials in medical education may contribute to bridge the gap between education theory and practice and aid decision makers in making evidence-based choices and priorities. Conducting practical trials is not without challenges and rigorous design and methods must be applied. Of concern is that the practical focus may lead to failure to include a sound theoretical basis in the research questions and the interventions studied, and that authors fail to obtain informed consent from their participants.

## To read more:

<http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13135/full>

<http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13135/full>

## 8. Putting the puzzle together: the role of 'problem definition' in complex clinical judgement

Sayra Cristanchi, Lorelei Lingard, Thomas Forbes et al

**Medical Education** Published on-line December 12, 2016

### Abstract

#### Context

We teach judgement in pieces; that is, we talk about each aspect separately (patient, plan, resources, technique, etc.). We also let trainees figure out how to put the pieces together. In complex situations, this might be problematic. Using data from a drawing-based study on surgeons' experiences with complex situations, we explore the notion of 'problem definition' in real-world clinical judgement using the theoretical lens of systems engineering.

#### Methods

'Emergence', the sensitising concept for analysis, is rooted in two key systems premises: that *person and context are inseparable* and that what emerges is an *act of choice*. Via a 'gallery walk' we used these premises to perform analysis on individual drawings as well as cross-comparisons of multiple drawings. Our focus was to understand similarities and differences among the vantage points used by multiple surgeons.

## Results

In this paper we challenge two assumptions from current models of clinical judgement: that experts hold a fixed and static definition of the problem and that consequently the focus of the expert's work is on solving the problem. Each situation described by our participants revealed different but complementary perspectives of what a surgical problem might come to be: from concerns about ensuring standard of care, to balancing personal emotions versus care choices, to coordinating resources, and to maintaining control while in the midst of personality clashes.

## Conclusion

We suggest that it is only at the situation and system level, not at the individual level, that we are able to appreciate the nuances of defining the problem when experts make judgements during real-world complex situations.

## To read more:

<http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13210/full>

<http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13210/full>

## 9. Faculty and Student Evaluations of a Medical Student Summer Research Program: A 15 Year Analysis

Tiffany Ho, Amkit Agarwal, Jay Khambhati et al

**Medical Science Educator** First online 10 January 2017

### Abstract:

### Objectives

The need for a better understanding of how medical student involvement in research at the university plays a role in both short-term and long-term outcomes provides the impetus for this study.

### Methods

Over the past 15 years, our institution has supported medical students through an 8-week summer research program, the Medical Student Summer Research Program (MSSRP). This study tracks short-term and long-term effects of the MSSRP through student surveys and match outcomes. We conducted analyses to understand the association between student and preceptor responses and determine factors that aided in positive research experiences. We followed a subgroup of students to their residency match to analyze the relationship between research interests and career paths.

### Results

We found that program participants regarded the Medical Student Summer Research Program (MSSRP) favorably. In addition, we found that the student's relationship with his or her preceptor strongly correlated to a positive research experience. Two factors—the student's possibility of publishing his or her findings and the student-reported availability of the preceptor—contributed to the student's interest in continuing his or her research project during medical school. From a subgroup of the MSSRP, we found a strong positive correlation between first-year summer research topics and match results from residency programs, 3 years later.

## Conclusion

Among the factors analyzed, we found that mentorship and collaboration are the most important drivers of research continuity, student satisfaction, and preceptor satisfaction.

### To read more:

<http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s40670-016-0367-z/fulltext.html>

<http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s40670-016-0367-z/fulltext.html>

## 10. The Causes of Errors in Clinical Reasoning: Cognitive Biases, Knowledge Deficits, and Dual Process Thinking

Norman, Geoffrey; Monteiro, Sandra, Sherbino, Jonathan, et al  
**Academic Medicine** Volume 92(1), January 2017, p 23–30

### Abstract:

Contemporary theories of clinical reasoning espouse a dual processing model, which consists of a rapid, intuitive component (Type 1) and a slower, logical and analytical component (Type 2). Although the general consensus is that this dual processing model is a valid representation of clinical reasoning, the causes of diagnostic errors remain unclear. Cognitive theories about human memory propose that such errors may arise from both Type 1 and Type 2 reasoning. Errors in Type 1 reasoning may be a consequence of the associative nature of memory, which can lead to cognitive biases. However, the literature indicates that, with increasing expertise (and knowledge), the likelihood of errors decreases. Errors in Type 2 reasoning may result from the limited capacity of working memory, which constrains computational processes. In this article, the authors review the medical literature to answer two substantial questions that arise from this work: (1) To what extent do diagnostic errors originate in Type 1 (intuitive) processes versus in Type 2 (analytical) processes? (2) To what extent are errors a consequence of cognitive biases versus a consequence of knowledge deficits?

The literature suggests that both Type 1 and Type 2 processes contribute to errors. Although it is possible to experimentally induce cognitive biases, particularly availability bias, the extent to which these biases actually contribute to diagnostic errors is not well established. Educational strategies directed at the recognition of biases are ineffective in reducing errors; conversely, strategies focused on the reorganization of knowledge to reduce errors have small but consistent benefits.

**To read more:** *(As this is on Ovid, you may need to access the library first)*

[http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.23.1b/ovidweb.cgi?&S=CMEHFPHFOLDJIIJNCHKFBGCPGOEAA00&Link+Set=S.sh.22.23.26%7c13%7csl\\_10](http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.23.1b/ovidweb.cgi?&S=CMEHFPHFOLDJIIJNCHKFBGCPGOEAA00&Link+Set=S.sh.22.23.26%7c13%7csl_10)

<http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.23.1b/ovidweb.cgi?&S=CMEHFPHFOLDDJIJNCHKFBGCPGOEAA00&Link+Set=S.sh.22.23.26%7c13%7csl>  
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## **11. Visual Research in Clinical Education**

Jeff Bezemer

**Medical Education** Volume 51, Issue 1, January 2017, pp. 105-113

### **Abstract:**

#### **Aim**

The aim of this paper is to explore what might be gained from collecting and analysing visual data, such as photographs, scans, drawings, video and screen recordings, in clinical educational research. Its focus is on visual research that looks at teaching and learning 'as it naturally occurs' in the work place, in simulation centres and other sites, and also involves the collection and analysis of visual learning materials circulating in these sites.

#### **Background**

With the ubiquity of digital recording devices, video data and visual learning materials are now relatively cheap to collect. Compared to other domains of education research visual materials are not widely used in clinical education research. The paper sets out to identify and reflect on the possibilities for visual research using examples from an ethnographic study on surgical and inter-professional learning in the operating theatres of a London hospital.

#### **Main contribution**

The paper shows how visual research enables recognition, analysis and critical evaluation of (1) the hidden curriculum, such as the meanings implied by embodied, visible actions of clinicians; (2) the ways in which clinical teachers design multimodal learning environments using a range of modes of communication available to them, combining, for instance, gesture and speech; (3) the informal assessment of clinical skills, and the intricate relation between trainee performance and supervisor feedback; (4) the potentialities and limitations of different visual learning materials, such as textbooks and videos, for representing medical knowledge.

#### **Discussion and conclusion**

The paper concludes with theoretical and methodological reflections on what can be made visible, and therefore available for analysis, explanation and evaluation if visual materials are used for clinical education research, and what remains unaccounted for if written language remains the dominant mode in the research cycle. Opportunities for quantitative analysis and ethical implications are also discussed.

#### **To read more:**

<http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.13163/full>

<http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.13163/full>