## Articles You May Enjoy September 2019

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# **1.** Challenging feedback myths: Values, learner involvement and promoting effects beyond the immediate task

Elizabeth Molloy, Rola Ajjawi, Margaret Bearman, Christy Noble, Joy Rudland, Anna Ryan **Medical Education** First published: 01 September 2019

# Abstract:

# Context

Research suggests that feedback in the health professions is less useful than we would like. In this paper, we argue that feedback has become reliant on myths that perpetuate unproductive rituals. Feedback often resembles a discrete episode of an educator "telling," rather than an active and iterative involvement of the learner in a future-facing process. With this orientation towards past events, it is not surprising that learners become defensive or disengaged when they are reminded of their deficits.

# Methods

We tackle three myths of feedback: (a) feedback needs praise-criticism balancing rules; (b) feedback is a skill residing within the teacher; and (c) feedback is an input only. For each myth we provide a reframing with supporting examples from the literature.

# Conclusions

Equipping learners to engage in feedback processes may reduce the emotional burden on both parties, rendering techniques such as the feedback sandwich redundant. We also highlight the benefits for

learners and teachers of conceptualising feedback as a relational activity, and of tracing the effects of information exchanges. These effects may be immediate or latent, and may manifest in different forms such as changes in learner evaluative judgement or professional identity.

## To read more:

https://onlinelibrary-wiley-com.ezproxy.library.uvic.ca/doi/10.1111/medu.13802 https://onlinelibrary-wiley-com.ezproxy.library.ubc.ca/doi/10.1111/medu.13802

# 2. When I say ... merit Chanté De Freitas, Lawrence Grierson, Meredith Vanstone Medical Education September 2019 Pages 858-860

#### Abstract:

Unpacking the term 'merit', the authors of this "When I say..." piece critically examine the notion that merit is a commendable quality deserving of reward and questioning the assumption that merit is a matter of social justice.

## To read more:

https://onlinelibrary-wiley-com.ezproxy.library.uvic.ca/doi/10.1111/medu.13894

https://onlinelibrary-wiley-com.ezproxy.library.ubc.ca/doi/10.1111/medu.13894

#### 3. Beyond the cultural myth of medical meritocracy

Saleem Razack, Torsten Risør, Brian Hodges, Yvonne Steinert Medical Education First published: 29 August 2019

#### Abstract:

#### Background

We examine the cultural myth of the medical meritocracy, whereby the "best and the brightest" are admitted and promoted within the profession. We explore how this narrative guides medical practice in ways that may no longer be adequate in the contexts of practice today.

#### Methods

Narrative analysis of medical students' and physicians' stories.

#### Results

Hierarchies of privilege within medicine are linked to meritocracy and the trope of the "hero's story" in literature. Gender and other forms of difference are generally excluded from narratives of excellence, which suggests operative mechanisms that may be contributory to observed differences in attainment. We discuss how the notion of diversity is formulated in medicine as a "problem" to be accommodated within merit, and posit that medical practice today requires a reformulation of the notion of merit in

medicine, valorising a diversity of life experience and skills, rather than "retrofitting" diversity concerns as problems to be accommodated within current constructs of merit.

## Conclusions

Three main action-oriented outcomes for a better formulation of merit relevant to medical practice today are suggested: (a) development of assessors' critical consciousness regarding the structural issues in merit assignment; (b) alignment of merit criteria with relevant societal outcomes, and (c) developing inclusive leadership to accommodate the greater diversity of excellence needed in today's context of medical practice. A reformulation of the stories through which medical practitioners and educators communicate and validate aspects of medical practice will be required in order for the profession to continue to have relevance to the diverse societies it serves.

#### To read more:

https://onlinelibrary-wiley-com.ezproxy.library.uvic.ca/doi/10.1111/medu.13871 https://onlinelibrary-wiley-com.ezproxy.library.ubc.ca/doi/10.1111/medu.13871

# 4. McMaster at 50: lessons learned from five decades of PBL

Alan Neville, Geoff Norman, Robert White Advances in Health Sciences Education First Online: 27 August 2019

## Abstract:

Although educators frequently act as if curricula are as standardized as drug doses (300 mg of PBL t.i.d.), such is not the case. As a case in point, at its inception, Problem Based Learning was hailed as a major curriculum innovation, with the promise of enormous gains in learning outcomes. Very quickly, ecclesiastical debates arose as what was true PBL and what was "modified PBL". Ironically, systematic reviews conducted fairly early in its evolution showed that the gains in learning outcome from PBL were neither large nor uniform (Vernon and Blake in Acad Med 68:550–563, <u>1993</u>), and the most consistent finding was greater student satisfaction. In this paper, we review five decades of experience with the first PBL curriculum at McMaster. We point out how the curriculum has evolved, both theoretically and practically, in response to external influences, based both on empirical evidence and practical demands. We describe these changes in four broad domains—theoretical rationale, the curriculum, assessment and admissions.

# To read more:

https://link-springer-com.ezproxy.library.uvic.ca/article/10.1007/s10459-019-09908-2 https://link-springer-com.ezproxy.library.ubc.ca/article/10.1007/s10459-019-09908-2

## 5. Performing Under Pressure: Varsity Athletes Excel in Medical School

Lindsay C. Strowd, Hong Gao, Mary Claire O'Brien, Patrick Reynolds, David Grier, Timothy R. Peters **Medical Science Educator** September 2019, Volume 29, Issue 3, pp 715–720

## Abstract:

## Purpose

The admission process for medical school relies on objective and subjective measures of personal achievement, and selecting successful medical students is a daunting task for admission committees. While there is a significant body of literature examining MCAT scores and undergraduate grade point average (GPA) with medical school performance, there is a paucity of research on impact of specific student accomplishments on future performance. We hypothesize participation in a varsity collegiate sport will correlate with higher performance during medical school.

## Methods

A retrospective review of four medical school classes at a single institution was completed. Each student's admission application was examined for at least 1 year of participation in a varsity-level sport at their respective undergraduate institution. A total of 62 athletes (16.36%) were identified out of 441 total students. Multiple medical school performance metrics were obtained for each student.

## Results

There was no difference in MCAT scores between athletes and non-athlete medical students. There was a significant difference in step 1, step 2 CK, NBME shelf exams, cumulative year 3 performance, and AOA status with the athletes outperforming their peers.

# Conclusion

Students who participate in collegiate varsity athletics excel in medical school. One explanation for this finding may be participation in high-stakes athletic training and competition results in development of specific attributes beneficial in medical school. These attributes may include receptiveness to criticism, time management, resiliency, team participation, and performing under pressure. Additional research is needed to elucidate the attributes that determine improved medical school performance, such that medical educators can utilize this knowledge to better prepare all students for the rigors of medical school.

# To read more:

https://link-springer-com.ezproxy.library.uvic.ca/article/10.1007/s40670-019-00730-4 https://link-springer-com.ezproxy.library.ubc.ca/article/10.1007/s40670-019-00730-4 6. Envisioning a True Continuum of Competency-Based Medical Education, Training, and Practice Cate, Olle ten; Carraccio, Carol Academic Medicine Volume 94(9), September 2019, p 1283-1288

## Abstract:

The existing structure of physician education has developed in siloed stages, with consecutive degrees and certifications and progressively longer training programs. As further fragmentation of health care and training systems will not improve the quality of care and education, the authors argue that a new vision of education, training, and practice as a continuum is needed.

They advocate for a model of competency-based medical education that merges with competencybased medical practice. In this system, education and training will result in individual, dynamic portfolios of valid entrustable professional activities (EPAs) for which physicians are certified. Physicians can maintain and renew that entrustment as long as the EPAs remain within their scope of practice. Entrustment occurs initially during training but is then granted for new activities as physicians' careers evolve.

This model accounts for the need to keep pace with changes in population health needs and expectations of competence over time. It de-emphasizes the divides between the stages of training and views the continuum from undergraduate medical education until retirement as a whole. Key obligations of self-regulating medical professionals include both the reception and the provision of supervision from and for others, respectively. Learning must be embedded in practice to address expectations regarding new knowledge and skills as they evolve with scientific and technological advances.

Entrusting physicians to deliver effective and safe care, based on their performance of the requisite EPAs without supervision, should ensure that they provide high-value, quality care to patients.

#### To read more:

http://ovidsp.dc2.ovid.com.ezproxy.library.uvic.ca/sp-4.02.0b/ovidweb.cgi?&S=DOJMFPMCAHEBJIPJIPCKCGOGPDJJAA00&Link+Set=S.sh.57.58.61%7c13%7csl\_ 10

http://ovidsp.dc2.ovid.com.ezproxy.library.ubc.ca/sp-4.02.0b/ovidweb.cgi?&S=DOJMFPMCAHEBJIPJIPCKCGOGPDJJAA00&Link+Set=S.sh.57.58.61%7c13%7csl\_ 10

and the accompanying editorial: (no abstract) Creating a Medical Education Continuum With Competencies and Entrustable Professional Activities Sklar, David P. MD Academic Medicine Volume 94(9), September 2019, p 1257-1260

http://ovidsp.dc2.ovid.com.ezproxy.library.uvic.ca/sp-4.02.0b/ovidweb.cgi?&S=DOJMFPMCAHEBJIPJIPCKCGOGPDJJAA00&Link+Set=S.sh.57.58.61.71%7c1%7c sl\_10 http://ovidsp.dc2.ovid.com.ezproxy.library.ubc.ca/sp-

4.02.0b/ovidweb.cgi?&S=DOJMFPMCAHEBJIPJIPCKCGOGPDJJAA00&Link+Set=S.sh.57.58.61.71%7c1%7c sl\_10

# 7. The Implicit Association Test in health professions education: A meta-narrative review

Javeed Sukhera, Michael Wodzinski, Maham Rehman, Cristina M. Gonzalez Perspectives on Medical Education First Online: 18 September 2019

# Abstract:

## Introduction

Implicit bias is a growing area of interest among educators. Educational strategies used to elicit awareness of implicit biases commonly include the Implicit Association Test (IAT). Although the topic of implicit bias is gaining increased attention, emerging critique of the IAT suggests the need to subject its use to greater theoretical and empirical scrutiny.

## Methods

The authors employed a meta-narrative synthesis to review existing research on the use of the IAT in health professions education. Four databases were searched using key terms yielding 1151 titles. After title, abstract and full-text screening, 38 articles were chosen for inclusion. Coding and analysis of articles sought a meaningful synthesis of educational approaches relating to the IAT, and the assumptions and theoretical positions that informed these approaches.

#### Results

Distinct, yet complementary, meta-narratives were found in the literature. The dominant perspective utilizes the IAT as a metric of implicit bias to evaluate the success of an educational activity. A contrasting narrative describes the IAT as a tool to promote awareness while triggering discussion and reflection.

# Discussion

Whether used as a tool to measure bias, raise awareness or trigger reflection, the use of the IAT provokes tension between distinct meta-narratives, posing a challenge to educators. Curriculum designers should consider the premise behind the IAT before using it, and be prepared to address potential reactions from learners such as defensiveness or criticism. Overall, findings suggest that educational approaches regarding implicit bias require critical reflexivity regarding assumptions, values and theoretical positioning related to the IAT.

# To read more:

https://link.springer.com/article/10.1007/s40037-019-00533-8

# 8. Awareness and usage of evidence-based learning strategies among health professions students and faculty

Felipe Piza, ,Jennifer Cohn Kesselheim, Juliette Perzhinsky, Joanna Drowos, Roni Gillis, Khen Moscovici **Medical Teacher** Published online: 13 Aug 2019

#### Abstract:

**Introduction:** Learning is essential and life-long for faculty and students. Often students and teachers use ineffective learning strategies and are not aware of evidence-based strategies.

**Methods:** A multicenter, international, cross-sectional, online survey-based assessment of awareness of evidence-based learning strategies among health professions students (n = 679) and faculty (n = 205).

**Results:** Students endorsed many study habits which violate evidence-based principles, including studying whatever is due soonest (389/679, 57%), failing to return to course material once a course has ended (465/679, 68%), and re-reading underlined or highlighted notes (298.679, 44%). While the majority of faculty surveyed (125/157, 80%) reported recommending effective study strategies for their students, most students (558/679, 82%) said they did not study the way they do because of instruction from faculty. The majority of faculty (142/156, 91%) and students (347/661, 53%) believe students have different learning styles.

**Discussion:** The results of this study demonstrate health professions students continue to use many ineffective study strategies, and both students and faculty hold misconceptions about evidence-based learning. While planning a curriculum, medical educators should focus on teaching students how to learn and use higher order thinking procedures in addition to teaching content.

#### To read more:

https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2019.1645950 https://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2019.1645950

# 9. The utility of mini-Clinical Evaluation Exercise in undergraduate and postgraduate medical education: A BEME review: BEME Guide No. 59

Sara Mortaz Hejri, Mohammad Jalili, Rasoul Masoomi, Mandana Shirazi, Saharnaz Nedjat, & John Norcini **Medical Teacher** Published online: 15 Sep 2019

# Abstract:

**Background:** This BEME review aims at exploring, analyzing, and synthesizing the evidence considering the utility of the mini-CEX for assessing undergraduate and postgraduate medical trainees, specifically as it relates to reliability, validity, educational impact, acceptability, and cost.

**Methods:** This registered BEME review applied a systematic search strategy in seven databases to identify studies on validity, reliability, educational impact, acceptability, or cost of the mini-CEX. Data extraction and quality assessment were carried out by two authors. Discrepancies were resolved by a third reviewer. Descriptive synthesis was mainly used to address the review questions. A meta-analysis was performed for Cronbach's alpha.

**Results:** Fifty-eight papers were included. Only two studies evaluated all five utility criteria. Forty-seven (81%) of the included studies met seven or more of the quality criteria. Cronbach's alpha ranged from 0.58 to 0.97 (weighted mean = 0.90). Reported G coefficients, Standard error of measurement, and confidence interval were diverse and varied based on the number of encounters and the nested or crossed design of the study. The calculated number of encounters needed for a desirable G coefficient also varied greatly. Content coverage was reported satisfactory in several studies. Mini-CEX discriminated between various levels of competency. Factor analyses revealed a single dimension. The six competencies showed high levels of correlation with statistical significance with the overall competence. Moderate to high correlations between mini-CEX scores and other clinical exams were reported. The mini-CEX improved students' performance in other examinations. By providing a framework for structured observation and feedback, the mini-CEX exerts a favorable educational impact. Included studies revealed that feedback was provided in most encounters but its quality was questionable. The completion rates were generally above 50%. Feasibility and high satisfaction were reported.

**Conclusion:** The mini-CEX has reasonable validity, reliability, and educational impact. Acceptability and feasibility should be interpreted given the required number of encounters.

# To read more:

https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/0142159X.2019.1652732 https://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.1080/0142159X.2019.1652732

10. Exploring the Construct of Psychological Safety in Medical Education.

Tsuei SH, Lee D, Ho C, Regehr G, Nimmon L. Academic Medicine published ahead of print July 30, 2019

#### Abstract:

#### **PURPOSE:**

Psychological safety (PS) is recognized as key in health professional education. However, most studies exploring PS in medical education have focused on mistreatment, thus focusing on what PS is not. The authors set out to explicitly explore learners' concept of PS in the context of medical education to better understand and define PS and its educational consequences for medical students.

#### METHOD:

This descriptive exploratory study was conducted in the context of a pilot peer-assisted learning (PAL) program. The program brought together residents and medical students for 16 semi-formal learning sessions. Eight medical students from a PAL program were recruited for semi-structured interviews to explore their experiences of PS. Transcripts were thematically analyzed using an inductive approach, and social ecological theory was integrated in the latter stages of analysis.

#### **RESULTS:**

Students described PS as not feeling judged. Having supportive relationships with peers and mentors improved PS. Students' sense of PS appeared to free them to focus on learning in the present moment

without considering the consequences for their image in the eyes of others. Feeling safe also seemed to facilitate relationship building with the mentors.

## CONCLUSIONS:

A sense of PS appears to free learners from constantly being self-conscious about projecting an image of competence. This enables learners to be present in the moment and concentrate on engaging with the learning task at hand. The authors propose the term "educational safety" be used to describe a relational construct that can capture the essence of what constitutes psychological safety for learners.

#### To read more:

For **UVic**: <u>http://bit.ly/2kR7pWU</u>

For UBC: <u>http://bit.ly/2kT4YD4</u>