Articles you may enjoy (abstracts and links) March 2016

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1. Science Supports Education: The Behavioral Research Base for Psychology's Top 20 Principles for Enhancing Teaching and Learning

Joan M. Lucariello et al

Mind, Brain, and Education Volume 10, Issue 1, pages 55–67, March 2016

Although this article is focused on K-12 teaching, it definitely applies to medical education as evidenced by the fact that I found it through a link posted on Twitter by Cees Van der Vleuten (the most cited med ed researcher/author in the world)

Abstract:

Psychological science has much to contribute to preK-12 education because substantial psychological research exists on the processes of learning, teaching, motivation, classroom management, social interaction, communication, and assessment. This article details the psychological science that led to the identification, by the American Psychological Association's Coalition for Psychology in Schools and Education, of the "Top 20 Principles from Psychology for PreK-12 Teaching and Learning." Also noted are the major implications for educational practice that follow from the principles.

To read more:

http://onlinelibrary.wiley.com/doi/10.1111/mbe.12099/full (free article, no library links needed)

2. Caught in the Middle: A Resident Perspective on Influences From the Learning Environment That Perpetuate Mistreatment

Bynum, William E. MD; Lindeman, Brenessa MD, MEHP

Academic Medicine Volume 91(3), March 2016, p 301–304

Abstract:

Understanding and addressing the issue of learner mistreatment is among the most pressing challenges facing academic medicine today. Despite the fact that residents have a significant influence on the clinical learning environment and may be both recipients and perpetrators of mistreatment, the resident perspective on the issue of learner mistreatment is notably sparse in the medical education literature. In this Commentary, the authors provide a resident response to recent data showing that mistreatment is subjective and may occur on a spectrum from incident-based mistreatment to environmental-based mistreatment. They focus on specific factors from the learning environment that may increase a learner's tendency to feel mistreated or have a suboptimal learning experience, including team cohesion, marginalization, peer-on-peer mistreatment, witnessing mistreatment, hierarchies, interdepartmental mistreatment, acculturation of uncivil behaviors, and residents themselves. This is followed by a discussion of proposed solutions to mitigate the negative impact of these influences and build safe learning environments, collaborative teams, empathic teachers, and resilient learners.

To read more:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.18.0b/ovidweb.cgi?&S=MHMKFPJELNDDPBEJNCJKDCDCKCPAAA00&Link+Set=S.sh.22.23.26%7c16%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.18.0b/ovidweb.cgi?&S=MHMKFPJELNDDPBEJNCJKDCDCKCPAAA00&Link+Set=S.sh.22.23.26%7c16%7csl_10

3. Progress testing: critical analysis and suggested practices

Mark Albanese, and Susan M. Case

Advances in Health Sciences Education volume 21, issue 1, March 2016, pp. 221-234

Abstract

Educators have long lamented the tendency of students to engage in rote memorization in preparation for tests rather than engaging in deep learning where they attempt to gain meaning from their studies. Rote memorization driven by objective exams has been termed a steering effect. Progress testing (PT), in which a comprehensive examination sampling all of medicine is administered repeatedly throughout the entire curriculum, was developed with the stated aim of breaking the steering effect of examinations and of promoting deep learning. PT is an approach historically linked to problem-based learning (PBL) although there is a growing recognition of its applicability more broadly. The purpose of this article is to summarize the salient features of PT drawn from the literature, provide a critical review of these features based upon the same literature and psychometric considerations drawn from the Standards for Educational and Psychological Testing and provide considerations of what should be part of best practices in applying PT from an evidence-based and a psychometric perspective.

To read more:
http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-015-9587-z/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-015-9587-z/fulltext.html

4. Hedging to save face: a linguistic analysis of written comments on in-training evaluation reports
Shiphra Ginsburg, Cees van der Vleuten, Kevin W. , Lorelei Lingard
Advances in Health Sciences Education volume 21, issue 1, March 2016, pp. 175-188

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:

http://link.springer.com.ezproxy.library.uvic.ca/article/10.1007/s10459-015-9622-0/fulltext.html

http://link.springer.com.ezproxy.library.ubc.ca/article/10.1007/s10459-015-9622-0/fulltext.html

Learners, performers, caregivers, and team players: Descriptions of the ideal medical student in longitudinal integrated and block clerkships
Bridget C. O'Brien, David Hirsh, Edward Krupat, et al
Medical Teacher Volume 38 (3) march 2016 pp. 297-305

Abstract:
Background: Hidden curriculum literature suggests that different learning environments and curricular designs reinforce disparate values and behaviors.

Aim: This study explores potential differences in learning environments afforded by two clerkship models through perceptions of the ideal student.

Methods: In this qualitative study, research assistants interviewed 48 third-year students and 26 clinical supervisors from three US medical schools. Students and supervisors participated in longitudinal integrated clerkships (LICs) or block clerkships. Students and supervisors described the ideal student in

their clerkship. Using phenomenographic techniques, authors identified five ideal student profiles and coded students' and supervisors' descriptions for alignment with one or more profiles.

Results: Most students in both models described an ideal student who matched a learner profile (proactive and self-directed). More LIC students described an ideal student who fit a caregiver profile (engaging with and advocating for patients) and more block students described performer (appearing knowledgeable and competent) and team-player (working well with others) profiles. Supervisors' descriptions paralleled students' descriptions but with less emphasis on caregiving.

Conclusions: Ideal student descriptions in LIC and block models may reflect different learning experiences and values emphasized in each model. These findings suggest implications for students' construction of professional identities that warrant further exploration.

To read more:

http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.3109/0142159X.2015.1033390

http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.3109/0142159X.2015.1033390

6. Investigating Canadian medical school attrition metrics to inform socially accountable admissions planning. Yannick Fortin, Liane Kealey, Steve Slade and Mark Hanson
Medical Teacher Volume 38 (3) march 2016 pp. 286-290

Abstract

Objective: Attrition from Canadian medical degree programs was never described despite differences in admissions requirements at the 17 faculties of medicine. Knowledge on attrition metrics could help the faculties evaluate new avenues for addressing the Association of Faculties of Medicine's (AFMC) Future of Medical Education in Canada (FMEC MD) recommendation to enhance admissions practices with the goal to improve social accountability and student diversity.

Method: AFMC databases were used to track medical degree completion of all Canadian M.D. students who enrolled between 2003 and 2007. Students were followed and assigned an M.D. completion status as of by July 1, 2013. Bivariate statistics were used to evaluate if demographic, admission and degree progression variables were associated with medical school attrition.

Results: Of 11,454 students enrolled in Canadian M.D. programs from 2003 to 2007, only 197 (1.7%) did not complete. Québec had significantly higher attrition than other jurisdictions with age, educational attainment at time of enrolment, MCAT completion and struggling academically associated with attrition.

Conclusion: Attrition from Canadian MD programs is rare and associated with differences in admission requirements and possibly suggests an optimum life stage for medical studies. Improved knowledge of attrition-related factors may offer an additional level of evidence for improving the alignment between admissions policies and the social accountability objectives of medical schools.

To read more:

http://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.3109/0142159X.2015.1045847

http://www-tandfonline-com.ezproxy.library.ubc.ca/doi/full/10.3109/0142159X.2015.1045847

7. Evaluating the Impact of Classroom Education on the Management of Septic Shock Using Human Patient Simulation

Lighthall, Geoffrey K. MD, PhD; Bahmani, Dona MD; Gaba, David MD

Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare
Issue: Volume 11(1), February 2016, p 19–24

Abstract:

Background: Classroom lectures are the mainstay of imparting knowledge in a structured manner and have the additional goals of stimulating critical thinking, lifelong learning, and improvements in patient care. The impact of lectures on patient care is difficult to examine in critical care because of the heterogeneity in patient conditions and personnel as well as confounders such as time pressure, interruptions, fatigue, and nonstandardized observation methods.

Methods: The critical care environment was recreated in a simulation laboratory using a high-fidelity mannequin simulator, where a mannequin simulator with a standardized script for septic shock was presented to trainees. The reproducibility of this patient and associated conditions allowed the evaluation of "clinical performance" in the management of septic shock. In a previous study, we developed and validated tools for the quantitative analysis of house staff managing septic shock simulations. In the present analysis, we examined whether measures of clinical performance were improved in those cases where a lecture on the management of shock preceded a simulated exercise on the management of septic shock. The administration of the septic shock simulations allowed for performance measurements to be calculated for both medical interns and for subsequent management by a larger resident-led team.

Results: The analysis revealed that receiving a lecture on shock before managing a simulated patient with septic shock did not produce scores higher than for those who did not receive the previous lecture. This result was similar for both interns managing the patient and for subsequent management by a resident-led team.

Conclusions: We failed to find an immediate impact on clinical performance in simulations of septic shock after a lecture on the management of this syndrome. Lectures are likely not a reliable sole method for improving clinical performance in the management of complex disease processes.

To read more:

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.18.0b/ovidweb.cgi?&S=OAGCFPAHELDDIBEHNCJKMCJCMLIKAA00&Link+Set=S.sh.35.36.39%7c3%7csl_10

http://ovidsp.tx.ovid.com.ezproxy.library.ubc.ca/sp-3.18.0b/ovidweb.cgi?&S=OAGCFPAHELDDIBEHNCJKMCJCMLIKAA00&Link+Set=S.sh.35.36.39%7c3%7csl_10

8. **Do OSCE progress test scores predict performance in a national high-stakes examination?**
Debra Pugh, Farhan Bhanji, Gary Cole, Jonathan Dupre, Rose Hatala et al
Medical Education Volume 50 (3); 351-358 March 2016

Abstract

Context Progress tests, in which learners are repeatedly assessed on equivalent content at different times in their training and provided with feedback, would seem to lend themselves well to a competency-based framework, which requires more frequent formative assessments. The objective structured clinical examination (OSCE) progress test is a relatively new form of assessment that is used to assess the progression of clinical skills. The purpose of this study was to establish further evidence for the use of an OSCE progress test by demonstrating an association between scores from this assessment method and those from a national high-stakes examination.

Methods The results of 8 years' of data from an Internal Medicine Residency OSCE (IM-OSCE) progress test were compared with scores on the Royal College of Physicians and Surgeons of Canada Comprehensive Objective Examination in Internal Medicine (RCPSC IM examination), which is comprised of both a written and performance-based component (*n* = 180). Correlations between scores in the two examinations were calculated. Logistic regression analyses were performed comparing IM-OSCE progress test scores with an 'elevated risk of failure' on either component of the RCPSC IM examination.

Results Correlations between scores from the IM-OSCE (for PGY-1 residents to PGY-4 residents) and those from the RCPSC IM examination ranged from 0.316 (p = 0.001) to 0.554 (<.001) for the performance-based component and 0.305 (p = 0.002) to 0.516 (p < 0.001) for the written component. Logistic regression models demonstrated that PGY-2 and PGY-4 scores from the IM-OSCE were predictive of an 'elevated risk of failure' on both components of the RCPSC IM examination.

Conclusions This study provides further evidence for the use of OSCE progress testing by demonstrating a correlation between scores from an OSCE progress test and a national high-stakes examination. Furthermore, there is evidence that OSCE progress test scores are predictive of future performance on a national high-stakes examination.

To read more:

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12942/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12942/full

9. A social neuroscience-informed model for teaching and practising compassion in health care

Beth A Lown

Medical Education Volume 50 (3); 332-342 March 2016

Abstract: Empathy and compassion are important catalysts for the healing process, but some research suggests their decline during training and practice. Compassion involves recognition, understanding, emotional resonance and empathic concern for another's concerns, distress, pain and suffering, coupled with their acknowledgement, and motivation and relational action to ameliorate these conditions.

Compassion, Altruism and Reward Neuroscientists have identified neural networks that generate shared representations of directly experienced and observed feelings, sensations and actions. When shared representations evoke empathic concern or compassion for another's painful situation, humans experience altruistic motivation to help. The resulting behaviours are associated with activation of areas in the brain associated with affiliation and reward.

Compassion Modulators Activation of these neural networks is sensitive to multiple inter- and intrapersonal influences. These include the ability to focus one's attention, the ability to receive and accurately interpret input about distress, the perspective one adopts in order to understand another's experience, self-other boundary awareness, the degree to which one values another's welfare, the ability to recognise and regulate one's own emotions, the ability to attend to one's own wellbeing through self-care and self-compassion, effective communication skills, reflection and meta-cognition.

Conclusions Current research suggests that compassion can be modulated through education and training and is associated with positive emotions, a sense of affiliation, reward and prosocial behaviours. A compassion process model and framework with examples of educational goals, interventions and resources for curriculum development are described. However, education must be aligned with changes in clinical practice to sustain compassionate care.

To read more:

http://onlinelibrary.wiley.com.ezproxy.library.uvic.ca/doi/10.1111/medu.12926/full

http://onlinelibrary.wiley.com.ezproxy.library.ubc.ca/doi/10.1111/medu.12926/full

10. Advancing Competency-Based Medical Education: A Charter for Clinician–Educators

Carol Carraccio, et al on behalf of the International Competency Based Medical Education Collaborative

Academic Medicine Published ahead of print March 2016

Abstract The International Competency-Based Medical Education (ICBME) Collaborators have been working since 2009 to promote understanding of competency based medical education (CBME) and accelerate its uptake worldwide. This article presents a charter, supported by a literature-based rationale, which is meant to provide a shared mental model of CBME that will serve as a path forward in its widespread implementation. At a 2013 summit, the ICBME Collaborators laid the groundwork for this charter. Here, the fundamental principles of CBME and professional responsibilities of medical

educators in its implementation process are described. The authors outline three fundamental principles: (1) Medical education must be based on the health needs of the populations served; (2) the primary focus of education and training should be the desired outcomes for learners rather than the structure and process of the educational system; and (3) the formation of a physician should be seamless across the continuum of education, training, and practice. Building on these principles, medical educators must demonstrate commitment to teaching, assessing, and role modeling the range of identified competencies. In the clinical setting, they must provide supervision that balances patient safety with the professional development of learners, being transparent with stakeholders about level of supervision needed. They must use effective and efficient assessment strategies and tools for basing transition decisions on competence rather than time in training, empowering learners to be active participants in their learning and assessment. Finally, advancing CBME requires program evaluation and research, faculty development, and a collaborative approach to realize its full potential.

To read more:

(apologies- I can't seem to find/make a shorter link that works)

http://ovidsp.tx.ovid.com.ezproxy.library.uvic.ca/sp-3.18.0b/ovidweb.cgi?WebLinkFrameset=1&S=MHMKFPJELNDDPBEJNCJKDCDCKCPAAA00&returnUrl=ovidweb.cgi%3fMain%2bSearch%2bPage%3d1%26S%3dMHMKFPJELNDDPBEJNCJKDCDCKCPAAA00&directlink=http%3a%2f%2fgraphics.tx.ovid.com%2fovftpdfs%2fFPDDNCDCDCEJLN00%2ffs046%2fovft%2flive%2fgv023%2f00001888%2f00001888-900000000-98615.pdf&filename=Advancing+Competency-Based+Medical+Education%3a++A+Charter+for+Clinician-Educators.&link_from=S.sh.22.23.27.35%7c56&pdf_key=FPDDNCDCDCEJLN00&pdf_index=/fs046/ovft/live/gv023/00001888/00001888-900000000-98615&D=ovft&link_set=S.sh.22.23.27.35|56|sl_10|tocsiblings|S.sh.22.23.27.35.43|0

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