



Joint Education and Training Library



Mid Cheshire Hospitals
NHS Foundation Trust

Education Horizon- Scanning Bulletin – May 2020

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JET Library – Mid-Cheshire
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Dental Education

Is simulation barking up the right gum tree?

Source: European Journal of Dental Education

In a nutshell: As well as wielding drills, pliers and needles with varying degrees of force and enthusiasm dentists are also expected to encourage their patients to look after their gums. In this article a team of researchers led by Andreia Filipa Carvalho Rodrigues Coleco (try saying that with a mouth full of suction pump) from the University of Porto studied the effectiveness of a simulation-based training programme at teaching dental undergraduates how to broach this topic. The students who took part in the study believed that clinical simulation contributed to “an active participation of learners in their learning process, promoting the development of skills such as communication, priority management and decision making. They also mention that debriefing is an essential moment of this process, in which the consolidation of knowledge and the structuring of thought are promoted.”

You can read the abstract of this at

<https://onlinelibrary.wiley.com/doi/abs/10.1111/eje.12544>

General Healthcare Education

Is willpower like cake or exercise?

Source: Journal of Experimental Social Psychology

In a nutshell: Opinions on self-discipline vary. Some psychologists think it's like cake – a finite resource that needs to be regularly topped up and husbanded carefully – whilst others think it's like exercise and that the more you practise it the easier it gets. A team of researchers, led by Lile Jia, from the National University of Singapore, have given at least a little support to the latter approach finding that “under active pursuit of [an] academic goal ... self-control ... increased students' intentions for school work.” In another study students who had previously shown greater self-control were more likely to voluntarily surrender their mobile phone to improve their performance on a task.

You can read the abstract of this article at

<https://www.sciencedirect.com/science/article/abs/pii/S0022103118304335?via%3Dihub>

Killing two birds with one stone in Singapore

Source: BMC Medical Education

In a nutshell: Despite the best efforts of animal-rights activists and its practical unfeasibility lots of people still like to try and kill two birds with one stone. In this study Kennedy Yao Yi Ng, from the National Cancer Centre in Singapore, led a team of researchers investigating a scheme in which healthcare undergraduates and

secondary-school students carried out home visits to older people who had frequently been admitted to hospital. The scheme produced an improvement in attitudes to older people among both the students and the schoolchildren and the schoolchildren (but not the students) showed an improvement in knowledge. The requisite degree of avian carnage was achieved as the people being visited showed a significant decline in hospital visits and trips to A&E. More than 80% of the patients who answered a feedback survey said they felt happier and less lonely.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02064-x>

Psychological safety and simulation

Source: Journal of Emergencies, Trauma, and Shock

In a nutshell: Psychological safety is the belief that one can express oneself without fear of negative consequences. It's closely linked to the culture of an organisation and serves as one of the foundations of effective learning as when people feel safe and comfortable they are more open to development, growth and negotiating change. In this article Fatimah Lateef from Singapore General Hospital discusses psychological safety in simulation-based education including the characteristics and attributes of facilitators, team training and dynamics and the issues of power and hierarchy.

You can read the whole of this article at

<http://www.onlinejets.org/article.asp?issn=0974-2700;year=2020;volume=13;issue=1;spage=5;epage=14;aualast=Lateef>

Is it game over for neonatal resuscitation?

Source: BMC Medical Education

In a nutshell: Playing computer games isn't all about managing a team to the Champions' League final or shooting zombies; they're now often used to teach more useful skills as well. In this study Cheo Lian Yeo, from Singapore General Hospital, led a team of researchers investigating the effectiveness of a web-based neonatal resuscitation game. 162 healthcare professionals took part in the study which found, unfortunately, that the game had no effect on the participants' ability to remember what they had been taught in their training.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02078-5>

... but appyness all the way for undergraduates

Source: Journal of medical Internet research

In a nutshell: A team of researchers, led by Mario Lozano-Lozano, from the University of Granada in Spain, had more luck when they tested an app called iPOT

designed to give health-sciences undergraduates 13 lessons on basic health sciences. Compared to a control group who were taught in traditional lessons the group using the app did not learn more but they did feel less confused and bewildered. They were more satisfied overall and with the clarity of instructions; felt they had more capacity to learn, were more motivated and felt they had improved their English more than the students who were taught traditionally.

You can read the abstract of this article at

<https://www.jmir.org/2020/5/e17101/>

Medical Education

Is it time to call time on multiple-choice?

Source: BMC Medical Education

In a nutshell: Multiple-choice exams are quick and easy to mark but have a number of drawbacks, including encouraging guesswork and not giving candidates an opportunity to show what they know. Very short answer questions (VSAQs) can provide an alternative which avoids some of these drawbacks and in this study Thomas Puthiaparampil and Md Mizanur Rahman, from Universiti Malaysia Sarawak compared the two approaches. They found that multiple-choice exams showed “skewed results and low psychometric performance,” compared to VSAQs and that the students were significantly in favour of VSAQs.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02057-w>

Teaching people evidence-based medicine (EBM): part 250

Source: BMC Medical Education

In a nutshell: Teaching people EBM is a bit like making a multi-storey car park with a trowel and a bucket of cement. It takes a long time to lay the foundations and time can easily run out before any results are visible. One way for trainee GPs to learn EBM is through “learning conversations;” meeting their supervisors to discuss medical practice, selected topics or professional performance. In this study Lisanne S. Welink, from Utrecht University, led a team of researchers who interviewed 22 GP trainees about this topic. The researchers found that the trainees found the conversations useful for learning EBM. A number of learning activities were identified such as discussing evidence together, relating evidence to cases in daily practice and discussing the supervisor’s experience and the specific local context in the light of what the evidence recommended. For learning to occur supervisors needed to supply well-substantiated answers “that are applicable in practice and give the trainee confirmation. In turn, the trainees needed to prepare well in order to ask focused, in-depth questions. A safe space allowing equal and open discussion between trainee and supervisor is perceived as an essential context for optimal EBM learning.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02051-2>

Helping teachers cope with the new normal

Source: Medical Teacher

In a nutshell: For the time being at least it seems that most medical education will be carried out remotely. There has been lots of attention given to how this might be achieved for learners but much less attention to how teachers can be supported while they do it. In this article Cesar Orsini and Veena Rodrigues, from Norwich Medical School address this issue discussing the crucial role of team leaders and how their management and leadership style can have great potential to support educators' motivation. They argue that educators' autonomous motivation depends on how they perceive their remote work environment as supporting their basic needs for autonomy, competence, and relatedness. They conclude that working from home requires space, trust, open communication, and flexibility.

You can read the abstract of this article at

<https://www.tandfonline.com/doi/full/10.1080/0142159X.2020.1758305>

Is radiotherapy training hitting the mark?

Source: BMC Medical Education

In a nutshell: Beaming radiation into people's bodies to kill cancer cells is a tricky business so it's important that the people doing it are well-trained. In this study Gerard M. Wells, from Queen's University Belfast, led a team of researchers reviewing the evidence on the teaching of radiotherapy. They found 146 articles that met their quality criteria and concluded "medical education has not kept pace with changes in the field of radiotherapy and large differences are demonstrated in experience between trainees in different hospitals, countries, and training stages. Interpersonal relationships, departmental organisation, and national curricula impact on training quality."

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02054-z>

Are medical students as good at communicating as they think they are?

Source: BMC Medical Education

In a nutshell: People's communication skills fall into a variety of categories. Some are stuck on transmit, others can't record, some can't think and talk at the same time whilst a lucky few can manage to talk, listen and think simultaneously. In this study Joachim Graf, from University Hospital Tuebingen, led a team of researchers studying communication skills in 1,027 medical students. They found that the

students rated their communication skills more highly than the people pretending to be patients for the purposes of assessing them. The students did show good levels of skills in empathy, content structure, verbal expression, and non-verbal expression although their levels of empathy decreased over time.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02049-w>

Judging students. Moving from synchronised swimming to the pole vault

Source: BMC Medical Education

In a nutshell: Measuring students' clinical skills is a complex process more akin – in Olympic terms – to judging the synchronised swimming rather than setting the bar up for the pole vault. Ratings can vary from one examiner to another so, in an attempt to even things out, examiners are often paired together. In this study a team of researchers, led by Aileen Flaherty, from the National University of Ireland in Galway, compared the reliability of examiners working on their own and in pairs and investigated how this was affected by personality factors. The scores pairs of examiners gave the students varied less from pair to pair than the score of individual examiners varied from one another. The examiners scored below average for neuroticism but 75% of them scored highly, or very highly, for extroversion. “The higher an examiner’s personality score for extroversion, the lower the amount of change in his/her score when paired up with a co-examiner; reflecting possibly a more dominant role in the process of reaching a consensus score.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02009-4>

Empathy. Is it like rhythm or touch-typing?

Source: BMC Medical Education

In a nutshell: There has been much debate as to whether empathy is like rhythm – something you either have or haven't got – or touch typing, a skill you can learn. Support for the latter point of view comes from a team of researchers led by Luiz Miguel Santiago, from the University of Coimbra in Portugal. They compared levels of empathy in medical students in two different medical schools in Portugal and found that they were higher in one than another “when earlier and more intense contact with patients accompanied by skilled tutors was developed.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02034-3>

Assessing communication skills at a ski resort near you

Source: BMC Medical Education

In a nutshell: It seems strange now but a few months ago people could travel around the world on the flimsiest of pretexts, getting somebody else to cough up for it and tacking on a few days at the end of their trips to keep their partners and children happy. Meeting up for a vital and serious purpose – not at all connected to any of the above – were 29 experts who went to Bern in Switzerland (famously remote from nice scenery and skiing) to discuss how to rate candidate’s communication skills displayed during OSCEs. The experts came up with nine major suggestions for improving assessments which a team of researchers – led by Matteo Monti from the University of Lausanne – classified into four categories:

- The role of the OSCE scenarios
- Rating tool
- Raters’ training
- Simulated patients

Future symposia are expected to achieve an even higher attendance as academics retreat to the office and confer via Zoom rather than chiselling off tramped-in Weetabix from beneath the high chair or re-sealing the bath.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02079-4>

Teaching paediatric gynaecology. Is high-fidelity simulation the answer?

Source: BMC Medical Education

In a nutshell: Paediatric and adolescent gynaecology is a tricky and sensitive area of work for which there are often not enough volunteers. In this study Anna Torres, from the Medical University of Lublin in Poland, led a team of researchers comparing a “high-fidelity simulation hybrid model,” (HFS) to a “task-trainer simulated-patient voice model.” The junior doctors taking part in the study rated the HFS model higher in cognitive, affective, and behavioural “attitude components.” Six factors were found to influence learning which were:

- Task difficulty
- Attention
- Emotional realism of the simulation
- Patients’ emotions
- Physical realism of the simulation
- Technical issues

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02076-7>

Nurse Education

When placements are like *The Texas Chainsaw Massacre*

Source: Nurse Education Today

In a nutshell: Ideally what nursing students see out on placement should be viewed with the warm glow engendered by *The Sound of Music* not through one's fingers like *The Texas Chainsaw Massacre*. This isn't always the case though and in this study Marina Garcia-Gamez, from the University of Malaga, led a team of researchers investigating the number, and type, of adverse incidents witnessed by 4,284 undergraduate nursing students. They found that the students had witnessed 1,638 adverse incidents between them. The most common were clinical accidents, followed by sharp and needle-stick injuries, then medication errors. The most common arena for incidents was critical care (35.9%) and 32.4% of the adverse events were deemed to be serious. Half of the incidents (49.8%) were classified as ones that could "happen again some time." Fourth-year students reported four times as many adverse events as second- and third-year ones.

You can read the abstract of this article at

<https://www.sciencedirect.com/science/article/abs/pii/S0260691719310585#!>

Do nursing students feel like other students?

Source: Nurse Education Today

In a nutshell: History students tend to spend their nights getting drunk before getting up for a coffee at about eleven, breaking for lunch at about half-past twelve and then playing a bit of sport in the afternoon to work up an appetite for dinner. Nursing students are made of sterner stuff though and in this article Sue Jackson and Alison Steven from Northumbria University interviewed eight lecturers and seven student nurses about their views on student life. Three "discourse tensions," emerged from the interviews which were:

- The university student and the student nurse
- The Nursing Midwifery Council registrant and the lecturer
- Student nurses as consumers of their university education

The researchers found that the students did not appear to align themselves with the university after experiencing clinical practice and that lecturers' language attempted to position students away from traditional student experiences (see getting drunk above) to protect professional standards.

You can read the abstract of this article at

<https://www.sciencedirect.com/science/article/abs/pii/S0260691718311390#!>

Ready, willing, but not that able?

Source: International Journal of Environmental Research and Public Health

In a nutshell: Doctors and nurses are expected to help out during disasters not run away in the opposite direction or stand around feeling guilty and awkward like the rest of us. In this study Shwu-Ru Liou, from Chang Gung University of Science and Technology in Taiwan, led a team of researchers who studied 90 nursing students to find out what they made of this state of affairs. The researchers found out that whereas the students' levels of competence were low anticipatory disaster stress was not high, and motivation for disaster engagement was high. Students who were more willing to participate in disaster management had a higher level of anticipatory disaster stress and motivation for disaster engagement.

You can read the abstract of this article at

<https://www.mdpi.com/1660-4601/17/10/3542>

How do you weigh up a preceptor?

Source: BMC Medical Education

In a nutshell: Preceptors are supposed to show new nurses around making sure they are “socialised,” as nurses and fit to be let loose on the general public. But how do you make sure that new nurses aren't experiencing the healthcare equivalent of being sent to Craggy Island to be shown the ropes by Father Ted? In this study a team of researchers, led by Andrew D. Bartlett, from the University of Sydney, reviewed the evidence on the assessment of preceptors. The researchers found 41 studies which met their quality criteria. The studies identified 17 evidence-based competencies of which 11 had an associated performance indicator. The competency of preceptors was most commonly measured using a preceptee completed survey, followed by preceptor self-assessment, and peer-assessment. Preceptee outcomes as a measure of preceptor performance had good but limited evidence.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02082-9>