Education Horizon-Scanning Bulletin – April 2019

Compiled by John Gale JET Library – Mid-Cheshire NHS Foundation Trust

Contents

General Healthcare Education

Mentoring student researchers. Volunteers or voluntold?

Source: CBE Life Sciences Education

In a nutshell: Attitudes to volunteering range from Gareth Southgate and Stuart Pearce nobly offering themselves to miss penalties for England in crucial football matches to those of us who prefer skulking at the back of the room and taking a keen interest in our footwear. Such attitudes might reasonably be expected to be found among those postgraduate students lucky enough to end up supervising undergraduates as the undergraduates themselves engage in research projects. In this study Lisa B. Limeri, from the University of Georgia in the US, led a team of researchers talking to 32 postgraduate research mentors to find out more. Although some of the postgraduates reported feeling pressured to mentor undergraduate researchers all of them expressed personal motivations including both self-focused and community-focused ones. The postgraduates reported both benefits and costs of mentoring which had both vocational and psychosocial elements.

You can read the abstract of this article here.

Motivation, cognitive strategies and academic performance

Source: Educational Psychology

In a nutshell: Predicting which students will do well at university is something of a gamble albeit less exciting than the 3:30 at Aintree and – one hopes – with less money and fewer trips to the knacker's yard involved. Adding their ha'p'orth to the research on this topic was a team of researchers led by Sara Manganelli, from the National Institute for the Evaluation of the Education System in Italy. They looked into the links between self-determined motivation, the use of cognitive strategies and prior academic achievement and academic performance in a sample of 764 students. The researchers found that prior achievement influenced students' academic achievement and their motivation and use of cognitive strategies. Critical thinking was the only cognitive strategy which had a significant effect on students' academic performance, and this was, in turn, positively affected by autonomous motivation. Controlled motivation (arising from factors or people outside the individual) had a negative effect on academic performance. So for a sure-fire winner in the academic stakes it's good to look at the form book, work out which students can get to grips with the jumps and go easy on the whip.

You can read the abstract of this article here.

What motivates training in public health?
Source: Journal of Public Health Management and Practice

In a nutshell: Motivations for training can vary from a desire to make yourself a better and more knowledgeable person, a wish to have a day away from your boss with a free meal thrown in, or avoidance of a P45. In this study the rather appositely-named Nate C. Apathy and Valeria A. Yeager (rhymes with eager), both from Indiana University, looked into the motivations of public-health workers for going on training courses. They found that the most prominent motivation to seek training was personal growth (82.7% of respondents). Participants in the study fitted into four classes: those motivated by organisational pressure and requirements (31.8%); those motivated indiscriminately by all four factors (28.4%); those motivated by personal growth (21.7%) and those motivated by organisational "accommodations and supports," (18.2%). The type of motivation people had did not affect what they felt they needed training in.

You can read the whole of this article here.

Medical Education
Put down your notebooks, pick up your tablets
Source: BMC Medical Education

In a nutshell: Many lecturers watch students fiddling about on mobile phones with a sinking feeling, suspecting – possibly not without justification – that they are messing about on Instagram, looking for pictures of naked people or texting their mothers to remind them to bring their lunch in. But could they actually be taking notes? In this study Eeva Pyörälä, from the University of Helsinki, led a team of researchers investigating the uses students had put their iPads (given to them by the university) to. The researchers found that note taking was the most frequently and consistently reported study use of the iPads. While they took notes on the devices the students "processed the new information in an accomplished way and personalised the digital learning materials by making comments, underlining, marking images and drawing." However, during their clinical studies, the students faced scepticism from their teachers about their iPad usage who were ambivalent about them using the devices something which "hindered the full-scale benefit of the novel technology in the clinical context."

You can read the whole of this article here.

What do GPs think about teaching medical students?
Source: Teaching and learning in medicine

In a nutshell: Despite the fact that most people's first contact with the health service is via their GP it can be a struggle to persuade students to become family doctors. Easier, some might say, to specialise in heart problems and treat people with the same, than cover the whole spectrum of possible human suffering with no guarantee that you haven't spread yourself too thinly somewhere during the process. Those who do want to be GPs should be encouraged, one might argue, and in Canada students can enrol in an undergraduate family-medicine programme having placements with GPs during the first-year of their studies. But what do the family doctors themselves make of it? In this study Charo Rodríguez, from McGill University in Quebec, led a team of researchers attempting to find out by interviewing 43 of them in six focus groups. Enjoying teaching, promoting family medicine, and improving medical education were the salient motivations for family physicians to become preceptors to the students. The findings also pointed out the complexity of the student-preceptor exchanges that unfolded over the academic year, and the ambiguous and changing nature of the role that the preceptors adopted in their relationships with the students, moving from simply being facilitators of the students' clinical observership to behaving as their mentors.

You can read the abstract of this article here.

Feedback and logs in the bush
Source: BMC Medical Education

In a nutshell: Like Captains Kirk, Cook and Scott (although with presumably less risk of being captured by Klingons, killed by South Sea islanders or freezing to death in the Antarctic) many medical students keep logs of their experiences. These are sometimes assessed by their tutors who give them feedback on them. Helen M. Wright, from the University of Western Australia, led a team of researchers looking into this process in a sample of students some of whom worked in remote settings (2,175 miles from the nearest city) and some of whom worked in the city itself. The urban students logged 20 written cases, while the rural students logged a minimum of 25 cases electronically. 152 students took part, 76 in each group providing 3,034 logs for analysis. Feedback learning opportunities (FLOs) occurred in more than half the logs and major FLOs occurred in over a third. Medical FLOs were the most common, accounting for 64% of rural and 75.2 of urban FLOs. The students logged cases with a variety of complexities and most cases logged by urban students in a tertiary healthcare setting were of primary and secondary complexity.

You can read the whole of this article here.

Do foreign students need international rescue?
Source: BMC Medical Education

In a nutshell: Depending on one's point of view globalisation has produced either a fantastical kaleidoscope of dazzling patterns, colours and mingled cultures or the kind of mucky, indeterminate colour paint water turns after children have been using it to wash their brushes. Either way it's important to remember that there are people at the end of the process nearly all of whom just want – perfectly legitimately – a better life for themselves. In this study Elaine Byrne, from the Royal College of Surgeons in Ireland, examined the way in which cultural backgrounds affect the students' experience of an international medical school. Some of the challenges the students faced were obvious such as difficulties with language and loss of established friendship networks. Other challenges to emerge in the study were the complex inter-relatedness of the daily challenges facing international students affected by their sex, the presence (or indeed absence) of alcohol, languages spoken (in addition to English) and the dominance of the regional grouping the students belonged to.

You can read the whole of this article here.

College of Radiologists call for doubling in numbers
Source: British Medical Journal

In a nutshell: The Royal College of Radiologists has said that the NHS needs more people working in clinical oncology (cancer treatment). The College's workforce census report for 2018 showed that the clinical-oncology consultant workforce was short by 184 whole-time equivalents. The College argued that to tackle the shortfall UK specialist training places need to double from the current average of 64 new trainees a year to 138 a year for the next five years. The College found that 70 consultant clinical oncologist posts were currently vacant – compared to 33 in 2013 – with over half having been vacant for a year or more.

If you have access to the *British Medical Journal* you can read this article here.

Branched decision making. The Tree of Life or barking up the wrong one?
Source: PloS one

In a nutshell: People of a certain age might remember those books where readers were expected to make decisions about what happened next and the story changed accordingly. The same principle can be applied to virtual patients taking part in simulations where their responses change depending on which course of treatment medical students or trainee doctors have prescribed for them. If things go wrong the students and trainee doctors – if they haven't managed to kill the virtual patient off by

that point – get a chance to remedy things giving them the opportunity to learn how to cope with medical errors and mishaps. People worry that students might end up finding this all too much and become demotivated and it was this issue that Luke A. Woodham, from the Karolinska Institutet in Sweden, led a team of researchers in investigating. Students from six universities in three countries were given either a linear virtual patient who stuck to a pre-determined script or a 'branched,' one who was free to go downhill or recover depending on what the students did to them. The researchers found that there was no significant difference in learner motivation between the two types of patient and concluded that "the inclusion of decision-making elements did not make a significant difference to undergraduate medical students' motivation, perceived self-efficacy or adopted learning strategies."

You can read the whole of this article [here](#).

Tackling bullying of clinical students
Source: BMC Medical Education

In a nutshell: Students on their clinical placements sometimes fall victim to bullying. Apart from the possible exception of the bullies nobody really enjoys this state of affairs and much effort goes into preventing it. In this study Althea Gamble Blakey, from Otago School of Medicine in New Zealand, led a team of researchers looking into the effectiveness of a programme called CAPLE (Creating a Positive Learning Environment). CAPLE's primary practical foci were to offer clinical staff in two separate hospital wards an opportunity to develop their clinical teaching skills and to guide them in reflection and cultivation of values around students and learning. The study confirmed the effectiveness of this approach and "also that a strategic four-part framework of *approach, process, content* and *person* can further enhance a bullying intervention by increasing the likelihood of participant engagement, learning and values change."

You can read the whole of this article [here](#).

Nurse Education
When self-handicapping holds you back
Source: BMC Medical Education

In a nutshell: Many of us think that excuses, like rounds of drinks, are best got in early before doubts and recrimination set in. Psychologists are made of sterner stuff though and refer to this as 'self-handicapping;' "creating or claiming an obstacle for successful performance of tasks." In this study Ladan Zarshenas, from Shiraz

University of Medical Sciences in Iran, led a team of researchers who looked into the effectiveness of training nursing students in problem-solving skills at reducing self-handicapping. 90 students took part in the study. Half of them formed a control group while the other half had six two-hour sessions on problem-solving skills. The study showed that there was a significant difference in the group who had had the problem-solving sessions self-handicapping scores.

You can read the whole of this article [here](#).

Are students learning how to care?
Source: Nurse Education Today

In a nutshell: One of the most long-standing delusions arising from the Enlightenment is that people can be made perfect if only the systems they exist in are too. In pursuit of this delusion each scandal of poor nursing care is followed by calls to reform education so nursing students learn more about caring. In this study Elizabeth A. Rosser, from the Faculty of Health and Social Sciences in Bristol, led a team of researchers who talked to 14 nursing students. Four 'themes,' emerged,' from the interviews with the students which were:

- Articulating the terms caring and dignity
- Recognising the need for individualisation
- Learning nursing
- Personal journey

The researchers concluded "reporting on the final phase of this five-phase study and on the brink of qualifying, both cohorts of students recognised the impact of their different curriculum and their exposure to the same educators who had embraced the humanisation philosophy. They each acknowledged just how they had changed as individuals and how determined they were to influence the quality of care."

You can read an abstract of this article [here](#).

Training students to tackle obesity
Source: Nurse Education Today

In a nutshell: Fat people tend to become ill more often and die earlier. Some of them might consider this a price worth paying for enjoying food and drink, but determined to leave no oar un-poked, the medical profession has other ideas and obesity management (rather than steak-and-kidney pies and custard slices) is the order of the

day. In this study Sharon M. Fruh, from the University of South Alabama, led a team of researchers studying 99 graduate advanced-practitioner nursing students. The students' body-mass-indices ranged from 19.57 to 51.37. The areas the students were least comfortable in were prescribing anti-obesity drugs. 14% of the students felt that their graduate nursing education programme did not prepare them well in obesity management with a further 25.3% feeling only slightly well prepared. More in-depth questions found that the students also felt insecure about starting a discussion on obesity management with fat people.

You can read an abstract of this article here.

How do students use social media?
Source: Nurse Education Today

In a nutshell: Among the many gifts social media has given us are the chance to abuse total strangers for their political and religious beliefs, feel nauseated by their children and laugh at the antics of their pets. But what do nursing students make of it all? In this study Colin Ramage and Calvin Moorley, from London South Bank University, attempted to find out by reviewing the literature on the topic. They found that the following themes emerged from the literature:

- Understanding social media

- Perceptions of professional and safe social media use

- Positive aspects of social media

- Factors influencing social media usage

The researchers concluded "Social media is predominantly used by students to communicate with peers and to access course-related information. It can provide a collaborative environment which allows engagement and promotion of the nursing profession. Student nurses are generally aware of what constitutes safe and professional social media usage but there remains a need for additional training on how students should navigate the online world as there remains a significant risk of unprofessional behaviours."

You can read the abstract of this article here.

When voting comes to the classroom
Source: Nurse Education Today

In a nutshell: As if a referendum (with another one potentially in the offing) and two General Elections in the last four years wasn't enough students are now encouraged to vote on this that and the other as part of their lectures. At one point – in what already seems an arrangement as quaint as tele-printers and Ceefax – they were given clickers to do so but increasingly they can cast their virtual ballots via tablets and smartphones too; something pedagogues refer to as "a multi-platform classroom response system." In this study Ruixi Sheng, from Queen's University School of Nursing in Kingston (Canada, not Surrey or Hull), led a team of researchers asking 181 nursing students what they made of it. The students reported that the chance to vote improved learning, enhanced formative assessment and increased participation. Perceived limitations included practical drawbacks such as redundant features, technical difficulties, limited access and cost, and some of them felt that voting added no value, or even subtracted it, as it was disruptive to classroom time.

You can read the abstract of this article here.

Does simulation of palliation work?
Source: Nurse Education Today

In a nutshell: Nursing students practise many aspects of their duties during simulations when volunteers, other students and mannequins stand in for genuinely sick people. One thing they practise is looking after patients who are dying but does this really translate into the difficult, complex and emotional process of helping people pass in to 'the undiscovered country whose bourne no traveller returns.' Kristin Valen, from the Western Norway University of Applied Sciences in Bergen, led a team of researchers trying to find out by interviewing 11 second-year nursing students. From the interviews the researchers concluded that "simulation is a preferred method to gather knowledge, skills, and attitudes towards palliative care. Realistic cases stimulated senses and feelings. Courage grew through active participation and debriefing and influenced the students' self-confidence. Debriefing seemed to alter the situation from one of chaos to control."

You can read the abstract of this article here.

What do nursing students make of OSCEs?
Source: Nurse Education in Practice

In a nutshell: Medical students are often assessed using Objective Structured Clinical Examinations (OSCEs) where – rather like David Bowie – they move from station to station treating a variety of people pretending to be patients and having their clinical

skills tested. In this study Ingrid Taylor, from the University of South-Eastern Norway, led a team of researchers looking into nursing students' experiences of OSCEs. They interviewed 15 nurse-practitioner students and five examiners. The researchers found that both groups experienced the exam as an appropriate assessment for advanced clinical competence, "though they experienced some challenges with the exam form."

You can read the abstract of this article here.

Crossing the lines in the Middle East
Source: Nurse Education Today

In a nutshell: The divide between Jews and Arabs in the Middle East makes any tension between Leavers and Remainers pale into insignificance. In this study Dorit Hadar-Shoval, from The Max Stern Yezreel Valley College in Israel, surveyed 180 Jewish and Arab nursing students asking them about their perceptions of the other group. The students found that the Jewish students had more positive stereotypes and fewer negative stereotypes about the Arab students than the Arab students did about them. However, the Jewish students showed less willingness to reduce social distance between the groups. No differences were found between beginning students and advanced students with respect to stereotypes, though advanced students expressed greater willingness to reduce social distance than beginning students.

You can read the abstract of this article here.

What helps with the shock of the wards?
Source: Nurse Education Today

In a nutshell: Along with inebriated youths, fireworks displays and ill-advised dietary regimes lunatics plunging into ice-cold water has become one of the staples of New Year's Day broadcasting. A similar sense of shock is felt by many nursing students as they forsake the congenial environment of the lecture theatre for crowded rooms, crammed to the gunwales with cross people exuding bodily fluids and not-at-all pleased to be there. In this study Eun-Young Kim and Jung Hee Yeo, from Dong-A University, South Korea, studied 312 newly-graduated nurses in an attempt to find what helped them cope with this transition. They found that the factors significantly influencing transition shock were age, self-efficacy, whether the nurses ended up working where they wanted to and nurse work environment.

You can read the abstract of this article here.

What can we learn from escaping the room?
Source: Nurse Education Today

In a nutshell: Notwithstanding the ill-advised life choices made by Julian Assange most people don't like being confined in rooms for protracted periods of time. This ideas has begun to be used in training recently with groups of people having to work together as a team to answer questions and solve puzzles so they can 'escape the room.' In this study Jose L. Gómez-Urquiza, from the University of Granada, in Spain, led a team of researches assessing the effectiveness of an Escape the Room game developed for nursing students. The students had half an hour to escape the room by demonstrating both theoretical and practical knowledge. The students who took part in the game strongly believed that this 'helped them learn the subject,' and that 'more games of this type should be included in their nursing studies.' Overall they thought that the game was enjoyable, helped them in their exam, and motivated them to study.

You can read the abstract of this article here.

The self-regulating student
Source: Nurse Education in Practice

In a nutshell: Self-regulated learning is a process of taking control of, and evaluating, one's own learning and behaviour. Students who are self-regulated learners believe that opportunities to take on challenging tasks, practise their learning, develop a deeper understanding of subject matter and exert effort will give rise to greater success. Self-regulated learners are successful because they control their learning environment by directing and regulating their own actions towards their learning goals. In this study Jian Hua Chen, from Lishui University in China, led a team of researchers studying self-regulated learning activity, metacognitive ability and general self-efficacy in a population of 199 nursing students. The study found that, overall, nursing students had moderate levels of self-regulated learning, ability and metacognitive ability but lower levels of general self-efficacy. There was a positive relationship between self-regulated learning abilities, metacognitive ability and general self-efficacy. Compared to second-year students third-years had a higher level of self-regulated learning but lower levels of self-efficacy. The researchers concluded "interventions are required for the improvement of nursing students' self-regulation ability, metacognitive ability and general self-efficacy."

You can read the abstract of this article here.

Simulation and psychological safety
Source: Nurse Educator

In a nutshell: "There is hardly a single action that we perform in that phase which we would not give anything, in later life, to be able to annul. Whereas what we ought to regret is that we no longer possess the spontaneity which made us perform them. In later life we look at things in a more practical way, in full conformity with the rest of society, but adolescence is the only period in which we learn anything." Notwithstanding the wise words of Marcel Proust many nursing students worry about making a fool of themselves during simulation exercises and in this study Sook Jung Kang, from Ewha Womans University in Seoul, led a team of researchers looking into psychological safety in simulation. The researchers interviewed 15 nursing students and four themes emerged from the interviews which were:

- Feeling unready

- Anxious about having students' mistakes exposed

- Worry about damaging teamwork

- Fear of evaluation

The researchers concluded that "providing debriefing and considering students' level of simulation experience in sharing their recorded video may help ensure a psychologically safe environment."

You can read an abstract of this article here.

Physiotherapy Education
Being there, or being great – is motivation the key?
Source: BMC Medical Education

In a nutshell: Some people join a gym, pay their membership fee, never darken the doors and then get cross when they don't turn into finely-honed athletes. Some students adopt a similar philosophy when it comes to tuition fees and in this article Susan Edgar, from the University of Notre Dame in Australia, led a team of researchers looking into the influence of motivation into physiotherapy students' performance. Self-belief was identified as the key dimension of motivation affecting students' success as they started university. There was a link between their scores for self-belief on entry and academic performance in their first year, including grade-point average and performance in six out of the nine courses they took. The other three courses were

identified as curriculum areas where students may be less motivated. There was a relationship between the admissions interview and the students' motivation to learn "demonstrating a link between non-cognitive selection measures and student motivation to learn on entry into the programme."

You can read the whole of this article [here](#).

What do students make of motivational interviewing?
Source: BMC Medical Education

In a nutshell: Health professionals are always looking for new ways to help people give up bad habits. One method is motivational interviewing "an evidence-based talking therapy designed to affect client health behaviour change." In this study Meriel Norris, from Brunel University in London, led a team of researchers looking into how students found being trained in this technique. The researchers held four focus groups including 24 undergraduates – 14 occupational therapists and 10 physiotherapists. Two main themes emerged from the data: *learning different ways to interact* and *the challenge of transformation*. Another theme *using the spirit of motivational interviewing, but not every contact counts* highlighted the facilitators and challenges of using motivational interviewing on students' placements. The researchers concluded "motivational interviewing is a useful addition to training neophyte health students. Key skills were adopted and in some cases transferred into practice. The process of learning indicates areas of potential improvement to enhance relevance of practice scenarios. The transfer to practice is more complex illustrating a need to negotiate professional and institutional expectations which should be considered in training."

You can read the whole of this article [here](#).