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# Education Horizon- Scanning Bulletin – January 2020

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## Allied Health Professional Education

### What makes for good supervision?

**Source:** BMC Health Services Research

**In a nutshell:** Clinical supervision is recommended for allied health professionals for the purpose of supporting them in their professional role, continued professional development and ensuring patient safety and high quality care. In this study David A. Snowdon, from Monash University in Australia, led a team of researchers asking allied health professionals (AHPs) what made for good supervision. Three main themes emerged from discussions with the AHPs. The AHPs said that supervision was most effective when their professional development was the focus of clinical supervision; when the supervisor had the skills and qualities needed for a constructive supervisory relationship and when their organisation provided an environment that facilitated this relationship together with their own professional development. . Three subthemes emerged within the main themes: the importance of the supervisory relationship; prioritisation of clinical supervision relative to other professional duties; and flexibility of supervision models, processes, and approaches to clinical supervision.

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

## General Healthcare Education

### Why you're never too old to get a badge

**Source:** International Journal of Educational Technology in Higher Education

**In a nutshell:** In *Hey Duggee!* the five “squirrels,” – Norrie, Betty, Roly, Happy and Tag – have various adventures and collect badges along the way. Later children collect badges at cubs, scouts, brownies and guides with the elite few getting the juvenile version of a Victoria Cross, a Blue Peter badge. It seems you're never too old to get a badge these days and many universities now give out digital badges – “electronic symbols used as micro-credentials to document achievement or skills mastered such as course completion, professional development participation, or training completion.” In this article Jill Stefaniak, from the University of Georgia in the US, and Kimberly Carey, from Western Governors University in Salt Lake City, examined the ins and outs of digital badges. They found that usability issues, increased faculty workload, and a lack of understanding of the badges' purpose and value were the main factors which negatively affected “badge adoption.”

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

## Facial expression monitoring – coming to a classroom near you?

**Source:** Computers & Education

**In a nutshell:** The trouble with the future is it never stops arriving; for those of us of a conservative disposition this essentially means that things never stop getting worse. One of the many ways in which this is happening is the advent of facial-recognition technology – a truly dystopian prospect for anyone remotely interested in civil liberties. Lecturers in Turkey are much more relaxed about this kind of thing – or at least some of them are – and in this study Güray Tonguç, from Akdeniz University and Betül Ozaydin Ozkara, from Isparta University of Applied Sciences, investigated the use of “automatic recognition of student emotions from facial expressions during a lecture.” Over the course of the lecture (on basic information technology) feelings of contempt, anger, fear, and confusion increased while feelings of happiness, sadness and disgust decreased. During the ‘closure,’ section of the lecture happiness increased rapidly, whereas all the other emotions decreased. Future students, meanwhile, might be well advised to bring a balaclava with them next time they go on campus.

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

### What makes for good supervision in the workplace?

**Source:** Health and Care Professions Council

**In a nutshell:** Reviewing other people’s research has a number of advantages – you don’t have to try and get someone to fill out a questionnaire while their Staffordshire Bull Terrier nips your ankles and their child gets jam all over your trousers and you can do it from the comfort of your own office with coffee and biscuits freely available. Reviewing the research on effective clinical and peer supervision in the workplace were a team of researchers led by Charlotte Rothwell, from Newcastle University. The researchers found 135 studies which met their quality criteria and concluded that ten things were needed for good supervision:

- Mutual trust and respect
- Being offered a choice of supervisor matching personal tastes, cultural needs and expertise
- Having a shared understanding of the purpose of the sessions, based on an agreed contract
- Focusing on providing support, sharing and enhancing knowledge, supporting professional development and improving service delivery
- Being regular and based on the needs of the individual but with the ability to have ad hoc sessions when needed
- Using a model based on the needs of the individual
- Creating protected time, supervisor training and private space to facilitate supervision
- Giving supervisors themselves training and feedback

- Using a flexible timetable so that all staff have access to supervision
- Having several supervisors or someone who is trained to manage the overlap between being a manager and a supervisor

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

## Medical Education

### What motivates trainees on the wards?

**Source:** Medical Education

**In a nutshell:** Motivation is a bit like a glass full of water – it’s easy to keep it topped up until you start moving about. Hospital wards include a lot of distractions, moving around and competing demands on one’s time and when these demands are more than people think they can cope with motivation can plummet. In this study Wieke E. van der Goot, from Martini Hospital in the Netherlands, (where, one hopes, the patients are neither shaken nor stirred) led a team of researchers looking into the factors affecting trainee doctors’ motivation on the wards. 15 trainee doctors took part in the study which identified four dimensions of the environment that supported their motivation. Social interactions, including interpersonal relationships, supported motivation through close collaboration between health-care professionals and trainees. Organisational features, including processes and procedures, supported motivation when learning opportunities were provided or trainees were able to influence their work schedule. Technical possibilities – including “tools and artefacts,” – supported motivation when tools were used to provide trainees with feedback or trainers used specific instruments in their training. And physical space supported motivation when the physical setting improved the atmosphere or trainees were able to modify the environment to help them focus.

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

### Virtual reality and skull-base surgery

**Source:** BMC Medical Education

**In a nutshell:** Whether it’s particle physics or – in my case – working a food processor most of us have a ceiling of difficulty above which everything seems unknowably complex. Brain surgeons – along with rocket scientists - are already at the top of the tree though so learning it is one of the most challenging and difficult things anyone can try and get to grips with. In this study Xuefei Shao, from Wannan Medical College in China, led a team of researchers investigating the effectiveness of virtual-reality technology at teaching neurosurgery for skull-base tumours. In their study 30 undergraduates were randomly divided into two groups. One group received traditional teaching in this technique while the other group were taught using virtual reality. A comparison of the two groups showed that the “response effect,” of the virtual-reality group was better and “the scores of basic theory,

location, adjacent structure, clinical manifestation, diagnosis and analysis, surgical methods and total scores in the VR group exceeded those in the traditional group.”

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

### Psychological safety and the hidden curriculum

**Source:** Clinical Rheumatology

**In a nutshell:** Psychological safety is a feeling that individuals are comfortable expressing and being themselves, as well as comfortable sharing concerns and mistakes without fear of embarrassment, shame, ridicule or retribution. In this article a team of academics led by Karina D. Torralba, from Loma Linda University School of Medicine in California, argue that psychological safety is a relatively unknown concept to many medical teachers and students. As well as picking up knowledge and skills via the formal curriculum medical students also experience a hidden curriculum of norms, values, and behaviour exhibited by their teachers. The vulnerability of learners in this environment is magnified by the hierarchical nature of medicine, and the complexity, uncertainty, and ambiguity inherent to medical conditions. Teachers who engage in unprofessional behaviours which result in students being humiliated and made to feel ashamed can “dampen productive discourse and scientific dialogue. Therefore, educators must embrace psychological safety to foster learning and facilitate high-performing teams.”

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

### Written or video materials. Eyes down for a trial

**Source:** BMC Medical Education

**In a nutshell:** There’s a lot more to ophthalmology than holding lenses up in front of people’s eyes and saying “better now, or before?” in a soothing tone of voice and braving – or inflicting – halitosis as you shine searchlights into people’s retinas. In this study H.D. Jeffry Hogg, from Newcastle University, led a team of researchers comparing the effectiveness of giving medical students different types of materials before their clinical ophthalmology placements. 98 final-year medical students took part in the study. All the students were sent welcome packs before their arrival asking them to do an hour-and-a-half’s worth of work focusing on particular eye conditions. 33 were also sent written materials, 32 were sent videos and the rest weren’t sent anything at all. 87% of the group who were sent written or video material did their homework, compared to only 70% of those who hadn’t been sent anything. The students who had been sent materials also did better on post-placement tests of knowledge and skills. The students using video materials did better at giving eye tests to patients but the students who received written material did better on an end-of-placement knowledge test.

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

## Can software improve doctors' bedside manner?

**Source:** BMC Medical Education

**In a nutshell:** A good bedside manner is an important quality for a doctor; those with it could probably rub vaseline into patients' knees and infuse them with HP sauce and still leave them with a warm glow and a smile. In this study Chao Sun, from the First Affiliated Hospital in Shaanxi, China, led a team of researchers attempting to see if "learning software," could improve the manner of junior doctors. 183 junior doctors took part in the study which found that after using the software more of them could accurately identify the psychosocial or emotional factors contributing to diseases. More of the doctors were able to openly discuss lifestyle issues and prevention strategies with patients and those who did the training tended to allow patients more time to describe their feelings and concerns about their illnesses. More of them also proved to be capable of being caring and respectful to patients and showing empathetic communication behaviour.

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

## Integrated curricula and communication skills

**Source:** BMC Medical Education

**In a nutshell:** Also trying to improve doctors' communication skills were a team of researchers led by Tore Gude, from the University of Oslo. They compared medical students not only over time (between 2003 and 2015) but also between a medical school with an integrated curriculum – where students had contact with patients from early on in their course – and one with a more traditional one where the students had no contact with patients for the first two-and-a-half years. The researchers found that the students' communication skills had improved between 2003 and 2015. Compared with the traditional curriculum the integrated one fostered higher levels of positive attitudes towards acquiring communication skills, and this effect was most pronounced among female students.

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

## The five As of obesity management

**Source:** BMC Medical Education

**In a nutshell:** Sadly the five As of obesity management aren't avocado, anchovy, apple, asparagus and almond but ask, assess, advise, agree and assist. In this study Thea Luig, from the University of Alberta in Canada, led a team of researchers assessing the effectiveness of a course, based on this model, for junior doctors training to be GPs. The course combined lectures, the chance to wear a fat suit, practice with real and pretend patients and "narrative reflections." 42 junior doctors took part in the study which improved the doctors' attitudes towards obese people and their confidence in advising them. The doctors showed improvements in:

- Assessing the root causes of weight gain

- Helping patients address their barriers
- Counselling patients on weight gain during pregnancy
- Counselling patients on depression and anxiety
- Counselling patients on weight gain as a side effect of medical treatment
- Counselling patients with obese children
- Referring patients to inter-disciplinary providers for care

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

### How do junior doctors cope with acute care?

**Source:** BMC Medical Education

**In a nutshell:** Unwell means different things to different people from a bit of a headache or a queasy tummy to heading towards death’s door at a rate of knots. The latter group are sometimes known as the acutely unwell and in this study Samuel Burrige, from London North West University Healthcare NHS Trust, led a team of researchers asking junior doctors how they coped with looking after them. The researchers carried out seven semi-structured interviews with F1 doctors. Most of them felt unprepared at first when responding to acutely-unwell patients. They described feeling overwhelmed, apprehensive and challenged. Two main challenges involved knowing when to escalate, and feeling expected to perform beyond their level of competency. “A lack of acute-care exposure at medical school was a common thread.” However, all the doctors felt prepared to respond to unwell patients three to six months after starting work. Hands-on experience, reflection, simulation, and multidisciplinary team-working were consistently ranked as the most useful learning experiences.

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

### Are chocolate and pop the key to recruitment?

**Source:** BMC Trials

**In a nutshell:** It’s unfair to caricature Switzerland’s contribution to culture as being merely the cuckoo clock; they’ve also been known to make rather nice chocolate too. Putting this to good use – the chocolate not the cuckoo clocks – were a team of researchers led by Annika Rühle, from the Cantonal Hospital of Lucerne. The researchers encourage junior doctors to recruit patients to clinical trials by using a soft-drink machine as “the delivery tool of randomization,” and rewarded the junior doctors with free soft drinks for each patient recruited. The junior doctors were told about the trial in a lecture and by post and “to increase interest everyone received Swiss chocolate.” The researchers found that after implementation of their approach junior doctors were positively motivated to recruit people and there were high recruitment rates for the trials.

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

### How communication skills training can lower patients' blood pressure

**Source:** BMC Health Services Research

**In a nutshell:** There's nothing more guaranteed to send your blood pressure rising than someone in a white coat hovering to with a black cuff and a blood-pressure monitor. In this study Seyedeh Belin Tavakoly Sany, from Mashhad University of Medical Sciences in Iran, led a team of researchers looking into the effectiveness of a training programme for doctors in reducing blood pressure among those patients for whom it was persistently high. 240 patients being treated by 35 doctors took part in the study. Doctors in one group had three sessions involving focus-group discussions and two workshops while the other group of doctors and patients carried on as usual. For the doctors who had been trained there was a significant improvement in physician-patient communication skills, blood pressure, medication adherence, and self-efficacy, compared to the control group.

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

### How much do medical students know about antibiotics?

**Source:** BMC Medical Education

**In a nutshell:** Prescribing antibiotics is a difficult balancing act for doctors. Prescribe too many and bacteria become resistant to antibiotics but don't prescribe enough and people start dropping like flies. In this study Luis Felipe Higuera-Gutiérrez, from the Universidad de Antioquia in Medellin, Colombia, led a team of researchers investigating how much 536 medical students from three universities knew about antibiotic resistance. Nearly half of them (43.5%) thought that their universities hadn't trained them sufficiently to interpret antibiograms and nearly a third (29.6%) thought that the quality of information received on the subject ranged from regular to poor. On a scale of 0 to 100 the average score for antibiotic therapy for upper-respiratory-tract infections was 44.2, for pneumonia it was 52.9, for urinary-tract-infection 58.7 and for skin and soft-tissue infections it was 63.1. This knowledge did not improve with academic term, the university, or the perceived quality of the education received.

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

## Midwifery Education

### What do midwifery students make of portfolios?

**Source:** Nurse Education in Practice

**In a nutshell:** Portfolios used to be the preserve of photographers and impossibly-cool art students carrying around their sketches – never subject to examination, and possibly non-existent – in leather receptacles the size of snooker tables. Nowadays

nearly everyone has to compile one to be allowed to carry on doing what they've already been up to for years and midwives are no exception. In this study Michelle Gray, from Charles Darwin University in Darwin, Australia, led a team of researchers asking midwifery students what they made of the portfolio process. There was a disparity between different universities about the level of detail needed for portfolios. The paper-based portfolio was criticised for not having sufficient space for the students to explain the extent of their experiences – in contrast the students completing the e-portfolio felt their reflective entries were excessive.

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

## Nurse Education

### Goodbye PowerPoint, hello PechaKucha

**Source:** Nurse Education in Practice

**In a nutshell:** PowerPoint can be a godsend for a presenter who is either nervous about presenting and/or knows nothing more about the subject than what they've written down on their slides. For those in the audience it can be a deeply tedious experience though as presenters read out their slides at a speed considerably slower than you can read them yourself. PechaKucha is a new way of presenting that involved presenters finding 20 images and speaking about them for 20 seconds each. In this study Ozgu Bakcek, from Health Sciences University in Ankara, led a team of researchers comparing PechaKucha to a traditional Powerpoint presentation. 134 nursing students took part in the study. 66 went to a presentation about knee prostheses using PechaKucha, while 68 went to a presentation on the same topic using a traditional PowerPoint approach. Although there was no difference between the two groups in terms of how much they learnt the group who had the PechaKucha presentation enjoyed it more.

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

### Senior simulation suits

**Source:** Nurse Education Today

**In a nutshell:** It's now possible – if you're not prepared to wait a few years – to wear a suit that simulates the experience of being an old person, complete with stiff limbs, dodgy eyes and unhelpful hearing. In this study Winnie Lai-Sheung Cheng, from Tung Wah College in Hong Kong, studied the educational effect of a senior simulation suit programme. 139 nursing students took part in the study. 69 wore the simulation suit and 70 wore clothing that “mimicked old age but did not actually impair faculties.” The researchers found no significant difference between the two groups but both groups showed a significant increase in positive attitudes towards, and willingness to serve, older adults.

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

## Debriefing and simulation

**Source:** Nurse Education in Practice

**In a nutshell:** People have debriefings after simulations in an attempt to work out what went right and wrong and what they might do differently next time. In this article Young-Ju Kim, from Sungshin Women's University in Korea, and Jee-Hye Yoo, from Valentine School of Nursing in Saint Louis, reviewed the literature on debriefing. They found 22 articles that met their quality threshold. Various types of debriefing were available according to learning objectives, learners' abilities, availability of resources and the context of simulations. The researchers found that peer-led debriefing was more appropriate for experienced healthcare professionals than unlicensed students due to a gap in knowledge and problem-solving skills among the latter group. They also found that tele-debriefing was feasible in some cases.

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

## Preceptorship in general practice

**Source:** Nurse Education Today

**In a nutshell:** Nurses are a bit like gnus. It's easy to see them in large herds at the water hole (hospital) but they're more difficult to track down in the bush (primary care). Some ply their trade in GP's surgeries where they can be spotted weighing patients, measuring people's blood pressure and taking blood samples, among other things. In this study Susan H. Walker and Kellie Norris, from Anglia Ruskin University, reviewed the evidence on preceptorship schemes for general-practice nurses. They found 12 articles that met their quality criteria but concluded that "the quality of the evidence on general-practice nurse preceptorship is low." They found that "a structured preceptorship programme, of more than four months' duration, which allows the development of peer-to-peer support, is a good model for general-practice nurse preceptorship." They recommended that doctors and the wider practice team should be involved in the programme and that "preceptorship should support the development of existing professional competencies, including the ability to make real-time autonomous clinical decisions."

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

## How do you treat pain when people can't tell you how much it hurts?

**Source:** Nurse Education in Practice

**In a nutshell:** People are often asked to rate their pain on a scale of one to 10 with one being stubbing one's toe and ten being standing on a child's Lego brick in stockinged feet. But what happens when patients can't understand the question and/or are incapable of speech? Nurses need to pick up on subtle cues and in this study Lucia Muñoz-Narbona, from the Institute for Health Sciences Research in Barcelona, led a team of researchers studying the effectiveness of an online training course in the Pain Assessment in Advanced Dementia scale. 401 nurses took part in

the study which found that, following the course, 99% of the participants passed a quiz on the scale. The nurses gave the course an average mark of 8.6/10 and the researchers concluded that “the e-learning course was effective and acceptable for training nurses on pain assessment using validated tools.”

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

### What do students think about OSCEs?

**Source:** Nurse Education in Practice

**In a nutshell:** OSCEs (objective, structured, clinical examinations) have been an important part of medical and nursing education for a number of years now. In this study Montserrat Sola, from the University of Barcelona, led a team of researchers interviewing 70 nursing students and 12 lecturers asking them what they thought about OSCEs. The students “experienced the OSCE positively as a learning event that offered an opportunity for feedback that could help them master the required competencies.” The exams increased the students’ responsibility by presenting them with a set of challenges they had to tackle individually and reaffirmed their confidence in life-like situations. The lecturers “valued the ability of the OSCE to integrate and assess competencies, its objectivity, and the indirect information it provided on the effectiveness of the curriculum.”

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

### What do students get from research?

**Source:** Nurse Education in Practice

**In a nutshell:** Depending on one’s level of optimism an invitation to take part in a research study as a patient can conjure up either the miracle cures of *Lorenzo’s Oil* or the entomological misadventures of David Cronenberg’s *The Fly*. But what happens to students when they get involved as researchers themselves? In this study Tove Elisabet Børsting, from Lovisenberg Diaconal University College in Oslo, led a team of researchers studying what 100 nursing students made of being involved in a clinical research project. Although they had been pressed for time the students felt able to adapt their communication to patients’ situations, explain the project to them, get them to sign a consent form and do the data collection. The project had improved their communication skills, helped them become more confident, and made them able to use their theoretical knowledge to reflect, observe, assess, and act.

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

### Crossing cultures in Australia

**Source:** Nurse Education Today

**In a nutshell:** Most 21<sup>st</sup> century people approach cultural sensitivities with the cautious fastidiousness of a Victorian spinster blundering into a Paris bordello to ask

directions to the Louvre. In this study Lily Dongxia Xiao, from Flinders University in Australia, led a team of researchers investigating the effectiveness of a “nurse-led education intervention to improve the cultural competence of aged care workers.” 113 staff took part in the study and registered nurses were trained as site champions to lead the programme. The results showed a statistically-significant increase in participants’ scores in knowledge, skills, comfort level, importance of awareness and self-awareness.

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

## Physiotherapy Education

Physiotherapy and learning disabilities

**Source:** BMC Medical Education

**In a nutshell:** Disabilities – including learning disabilities such as dyslexia – can make life more difficult for students. In this study M. Norris, from Brunel University, led a team of researchers who held four focus groups for 15 students with disabilities. Three themes emerged from the focus groups which were:

“It was quite a relief,” – the personal and social implications of diagnosis

“They’re not natural,” – the specifics of adjustments made – or not – in the context of academic assessment

“My dyslexia won’t switch off,” – the inaccessibility of the learning environment and the contrast between the 24-hour nature of having a specific learning disability and the piecemeal nature of adjustments made during people’s education

The researchers concluded that “having a specific learning disability or anxiety creates a number of hurdles to success in physiotherapy education. Most were within the university setting and were perceived to result from staff ignorance or piecemeal approaches to inclusion... such an approach belies the intention of the profession and the NHS and does not maximise the potential of widening participation.”

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