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# Education Bulletin – August 2024

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# General Healthcare Education

## Simulation and motivational interviewing

**Source:** BMC Medical Education

**In a nutshell:** Motivational interviewing involves talking to people, assessing how far they are away from adopting a certain course of behaviour, and attempting to move them closer to it. In this study a team of researchers, led by Angela Massouh, from the American University of Beirut School of Nursing, attempted to assess the effectiveness of simulation for teaching healthcare professionals about motivational interviewing. The simulation training led to an increase in the participants’ confidence in carrying out motivational interviewing. They felt more empowered and satisfied when they were successful in engaging and motivating the virtual clients. “Process transformation was evident in reflections on how to improve core skills specifically reflective listening. Reflections on Motivational Interviewing spirit related values showed premise transformation, which may indicate attitude changes.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05711-9>

## How to get virtual patients into the curriculum

**Source:** BMC Medical Education

**In a nutshell:** In this study Joanna Fefarak, from Jagiellonian University Medical College in Poland, led a team of researchers analyzing what makes for an effective integration of virtual patients into health-professions curricula. After analysing 21 studies they came up with the following themes:

* Goal in the curriculum
* Phase of the curriculum when to implement virtual patients
* Effective use of resources
* Virtual-patient alignment with curricular learning objectives
* Prioritization of use
* Relation to other learning methods
* Learning activities around virtual patients
* Time allocation
* Group setting
* Presence mode
* Virtual-patient orientation for teachers and students
* Technical infrastructure
* Quality assurance, maintenance, and sustainability
* Assessment of virtual-patient learning outcomes and learning analytics

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05719-1>

## Can a simulation make you nicer to Granny?

**Source:** Nurse Education in Practice

**In a nutshell:** On our recent holiday Mrs G and I had a foretaste of what being old must feel like – at least cognitively. All the appliances were somewhat more up-to-date than the ones chez Gale, and we spent a frustrating hour or so jabbing at them like laboratory monkeys,before concluding that the modern world had become far too clever for its own good. Simulations now exist to give students the full surround-sound (muffled and inaudible presumably) experience of being of a certain age and in this study Burcu Akpinar Söylemez, from Dokuz Eylul University in Turkey, led a team of researchers investigating the effectiveness of a scenario-based aging simulation experience. 120 healthcare students from various disciplines took part in the study and they were divided into two groups; half took part in the simulation and the other half formed a control group. The simulation was found to be effective at creating a more positive attitude to older people among the healthcare students.

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104066>

## SIMBA, PPI and PCOS

**Source:** BMC Medical Education

**In a nutshell:** SIMBA – Simulation via Instant Messaging Birmingham Advance – is a virtual simulation platform that has “successfully improved participating clinicians’ confidence in managing various simulated cases with a reasonable acceptance rate and reproducibility.” SIMBA has usually been limited to healthcare professionals but in this study a team of researchers, led by Eka Melson from Imperial College London, assessed its use for a mixture of healthcare professionals and patients suffering from polycystic ovary syndrome (PCOS). 48 healthcare professionals and 25 patients took part in the study which found that SIMBA-PPI (patient and public involvement) effectively improved clinicians’ confidence in managing PCOS and adrenal conditions. The patients’ confidence in the healthcare professionals also increased after the SIMBA session.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05772-w>

## Do students really go wild for IT?

**Source:** International Journal of Electronics and Telecommunications

**In a nutshell:** Rather like Mrs G’s teacher, who assumed that the insertion of Kylie Minogue into otherwise banal phrases about toothbrushing, hair-combing, and breakfast-eating would enthuse a class full of refractory and hormonal thirteen-year-old girls with the joys of the French language, so it’s tempting for university lecturers to assume that anything digital will be catnip to today’s youngsters. But is this really true? In this study a team of researchers, led by Miłosz Wawrzyniec Romaniuk from The Maria Grzegorzewska University in Poland, surveyed 139 students about digital teaching and learning. They found that the students appreciated technology which made it easier for them to get access to teaching materials, communicate effectively, and educate themselves, but that IT was not seen as “a remedy for all educational problems.” The key challenges as far as the students were concerned were: providing appropriate infrastructure, teachers’ competence, and their own capacity (or lack thereof) not to procrastinate and/or get distracted. The students were found to get more competent at using educational IT as they went through their course.

You can read the whole of this article at

<https://doi.org/10.24425/ijet.2024.149607>

## What makes students use ChatGPT?

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

**In a nutshell:** Given the ease with which computers facilitate cheating I fully expect education to have gone full circle in 20 years’ time, with calculators being seen as the work of the Devil, and students fiddling around with slide rules, abacuses, and log tables during their maths exams. It’s hard to uninvent things though and in this study Muhammad Farrukh Shahzad, from Beijing University of Technology, led a team of researchers who investigated the awareness, acceptance, and adoption of ChatGPT in universities in China. 320 students took part in the study which found that ChatGPT awareness significantly influenced the decision to use ChatGPT – a relationship that was significantly mediated by its perceived ease of use, usefulness, and “intelligence.” The trust the students had in ChatGPT significantly moderated the relationship between ChatGPT awareness and perceived ease of use, usefulness, and intelligence.

You can read the whole of this article at

<https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-024-00478-x>

## Online theatre and disabled students

**Source:** Nurse Education in Practice

**In a nutshell:** In this study Yael Mayer, from the University of Haifa in Israel, led a team of researchers investigating the effectiveness of a research-based theatre production called “Alone in the Ring,” at increasing knowledge and fostering positive attitudes towards people with disabilities in healthcare professions. 198 students took part in the study. 100 watched the play being performed in person and 98 watched it online. The researchers found that the play *did* lead to students feeling more comfortable with disabled people in healthcare professions with the online participants reporting greater comfort and engagement. Knowledge of disabled persons’ experiences and challenges, as well as possible ways of increasing inclusion improved significantly for both groups form pre- to post-performance, with the online participants showing the greatest change. “Qualitative data revealed that online theatre was perceived as authentic and beneficial for accessibility, engagement and emotional impact on students, though challenges included potential distractions and technological issues.”

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104085>

# Interprofessional Education

## What makes playing doctors and nurses successful?

**Source:** Nurse Education Today

**In a nutshell:** After the sad demise of one of our guinea pigs (RIP Orange) we’re now faced with the process of introducing a new friend to Lemon. Guinea pigs have to be introduced to one another carefully, getting used to the way they smell and look, before a phased introduction which can last a few weeks to avoid them attacking one another. All of which brings us nicely to doctors and nurses working together in interprofessional education. In this study Xiaoai Shen, from the University of Hong Kong, led a team of researchers investigating the factors that fostered “collaboration outcomes in interprofessional education.” “A sense of relatedness emerged as an important predictor of team effectiveness and goal achievement. Clear goals and technology support positively influenced collaboration outcomes.” The researchers also found that there were significant improvements in collaboration after the healthcare professionals had taken part in the interprofessional education simulation.

You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2024.106325>

# Medical Education

## When O2O+PBL>LBT

**Source:** BMC Medical Education

**In a nutshell:** Researchers are fond of acronyms, so much so that many an abstract comes to resemble a bad hand at Scrabble, or the first draft of *Hamlet* as interpreted by the famous [infinite monkeys](https://en.wikipedia.org/wiki/Infinite_monkey_theorem), more than anything conventionally intelligible. Joining the club were a team of researchers, led by Junxia Wu, from Zhejiang University in China. They studied the effects of online-to-offline (O2O) learning in which students learn about a subject on the internet before class. This was combined with problem-based learning (PBL)– tying knowledge to a particular case – and compared to conventional lecture-based teaching (LBT). The researchers found that the combination of online-to-offline and problem-based learning led to better scores in theory and practice skills, and clinical thinking. However, there was no significant difference in “teaching satisfaction,” between the two groups.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05675-w>

## Applying PDSA to medical education

**Source:** BMC Medical Education

**In a nutshell:** Now that 40-year-old mums like Harry Styles and Taylor Swift and 18-year-olds are into The Smiths one of the best ways of dating people is using acronyms. Those who associate HP, for instance, with sauce rather than computers are probably on the wrong side of 50. In the same way I invariably associate PDSA with the People’s Dispensary for Sick Animals, rather than Plan, Do. Study, Act which is the more prevalent option these days, at least in the world of work. In this study Shu Zhou, from Zhongnan Hospital, Wuhan University, led a team of researchers assessing the effectiveness of a PDSA approach when it came to improving students’ exam results in the National Medical Licensing Examination, which all students have to pass before they can start practising medicine. After exam results fell compared to other hospitals the quality-improvement team organized regular face-to-face meetings with in-depth discussions and questionnaires. They initiated a PDSA cycle to identify and solve problems; formulated and implemented specific training plans and created Gantt charts to keep track of their progress. The result was in increase in the past rate from 80.15% in 2021 to 91.04% in 2022 and the pass rate in the skills exam rose from 95.59% in 2021 to 99.25% in 2022.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05706-6>

## Does checking your watch make you arrive earlier?

**Source:** BMC Education

**In a nutshell:** For a short, glorious period, the French kept the clocks inside railway stations five minutes behind “real time,” to give everyone a better chance of catching their train. It’s a moot point though, whether constantly checking your watch helps you to get to your destination earlier, or whether constantly testing students improves their exam results, rather than just needlessly making them more anxious and stressed. In this study a team of researchers, led by Theresa Faure, from the University of Lübeck in Germany, investigated whether reducing the number of tests would help students’ performance in a dissection exam. 166 students took part in the study. Half of them were tested as normal as part of a control group, whilst the other half experienced a “friendly feedback intervention.” The students who were tested more often felt more stress, anxiety, and negative effect than the ones in the friendly-feedback group, and they also had more intrinsic motivation and self-efficacy. So the students felt happier, and more confident, not being tested but the one thing not measured was how they did in any exams at the end of the course.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05640-7>

## When simulation is a bit of a trauma

**Source:** BMC Medical Education

**In a nutshell:** Insofar as squeamishness can be distinguished from fear, I don’t mind having an injection as long as I don’t have to look at it. Doctors working in trauma wards have got stronger stomachs though, and this study examined the effectiveness of a virtual-reality trauma simulation at teaching junior doctors and consultants trauma-room procedures. 31 doctors took part in the study of whom 10 were anaesthesia consultants, with the rest being junior doctors. The researchers found a high rate of immersion in the simulation, and a low rate of motion sickness. All the participants though virtual-reality was a useful educational tool. The junior doctors felt more secure in trauma-room procedures after taking part in the simulation, but the consultants felt it made no difference.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05764-w>

## Putting the fun into funduscope

**Source:** BMC Medical Education

**In a nutshell:** At 28bn light years away [Earendel](https://earthsky.org/space/the-colors-of-earendel-companion-most-distant-star/#:~:text=Earendel%2C%20the%20most%20distant%20star&text=So%20it%20exists%20in%20a,light%2Dyears%20away%20from%20us.) is the most-distant star yet observed. I’m reminded of this every time I get my eyes examined and the hapless person at the other end of the [funduscope](https://en.wiktionary.org/wiki/funduscope) attempts to peer into my super-long (myopic) eyeballs to observe my retina. To paraphrase the police chief in Jaws “[you’re going to need a bigger lens](https://www.youtube.com/watch?v=wB3g967rFLs),” often echoes around the consulting room. In this study Canying Liu, from Sun Yat-sen University in China, led a team of researchers investigating the effectiveness of the Eyesi Direct Ophthalmic Simulator “as an innovative tool for fundus examination training.” 168 medical students took part in the study. After training 54.17% of them believed that the images presented by the Eyesi were consistent with the real fundus. Those who had trained using the Eyesi scored significantly higher in “fundus structure recognition,” and “self-confidence in examination. The group who used the Eyesi showed a significant increase in their score for “degree of mastery over fundus theory,” whereas the control group showed no improvement. 75.59% preferred the Eyesi to traditional direct ophthalmoscope training and 88.41% were receptive to the idea of introducing the Eyesi in training.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05780-w>

## Can you teach psychological safety?

**Source:** BMC Medical Education

**In a nutshell:** In this study Kirsten A. Porter-Stransky, from the University of South Carolina School of Medicine, led a team of researchers assessing the effectiveness of a teaching programme designed to engender psychological safety among people working in a medical school. The programme was “multi-pronged,” and included training sessions, departmental champions, videos, infographics, and targeted training for medical-school leaders. The researchers found that after the programme there was a “statistically-significant increase in departmental psychological safety,” although “perceived psychological safety remained lower at the institution-wide level than at the departmental level.” The sessions were found to have “significantly increased knowledge of the topic as well as motivation to create a culture of psychological safety within the medical school.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05794-4>

## Does a Covid OSCE do the job?

**Source:** BMC Medical Education

**In a nutshell:** In this study Andrea Gotzmann, from the Medical Council of Canada, led a team of researchers assessing how accurate adapted OSCE exams were during the Pandemic. A modified exam with no face-to-face contact was used in 2020 and 2021. The researchers found that the exam was reliable and concluded that “modifications to OSCEs to address health restrictions can be implemented without compromising the overall quality of the assessment.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05774-8>

## Empathy and the junior doctor

**Source:** BMC Medical Education

**In a nutshell:** In this study Habibeh Ahmadipour and Niloofar Soltanzadeh, from Kerman University of Medical Sciences in Iran, studied empathy levels among 108 junior doctors. They found that the average score for “standing in the patient’s shoes,” increased significantly during the doctors training, but that their average score for compassionate care decreased. “The overall score for empathy decreased during the internship, but the difference was not statistically-significant.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05813-4>

## Does high-school anatomy make a difference?

**Source:** BMC Medical Education

**In a nutshell:** In this study Brianna L. Walter and Rebecca L. Pratt, from Oakland University in Minnesota, investigated whether high-school anatomy classes made any difference to medical students’ marks or propensity to specialize in surgery as their course went on. They found that prior anatomy experience did not significantly affect performance in anatomy courses or the students’ exam results in Step 1 or Step 2. However, the students who went on to apply for surgical specialties did have higher scores in their university anatomy exams. However, there were no differences between those from less-privileged backgrounds and other students when it came to applying for surgical specialties.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05642-5>

# Nurse Education

## Learning while you work in the nursing home

**Source:** Nurse Education in Practice

**In a nutshell:** Hybrids can vary in their degree of success. The wire-haired terrier/dachshund crosses we once saw in a bed-and-breakfast in Cornwall looked like toilet brushes on legs whereas cockapoos are generally considered to be some of the loveliest dogs around. But what category does hybrid learning (learn while you work) in nursing homes fall into. That was the question a team of researchers, led by Johanna E.R. Rutten, from Maastricht University in The Netherlands, attempted to answer in this study. Three themes emerged from interviews with the students:

* Design of the learning process
* Disconnection between working and learning
* Learning resources

The researchers concluded “the hybrid learning environment in a nursing home setting remains underdeveloped. By considering some improvement points (e.g., clarity of the role of work supervisor and students’ awareness of learning while executing daily tasks), the hybrid learning environment can promote a shift from working task-centred to working relationship-centred. Additionally, students must grasp the essence of the concept of relationship-centred care and need support in developing reflection skills to provide it.”

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104078>

## I’ve called the midwife – she’s on maternity leave

**Source:** Nurse Education in Practice

**In a nutshell:** In this study, Liz McNeill, from Flinders University in Australia, led a team of researchers investigating midwifery students who took maternity leave. Of the 35 students who took part in the study 17 chose to return to their studies within six weeks of their baby’s birth. Most of the childcare was carried out either by the students’ partners, or other family members. “Work integrated learning, rostering of shifts and being on call for Continuity of Care Experience relationships accounted for the most significant number of responses when identifying barriers to resuming midwifery studies.”

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104073>

## Infographic vs video – which is best for CPR?

**Source:** BMC Medical Education

**In a nutshell:** “The arc of the moral universe is long,” declared Martin Luther King “but it bends towards justice,” proving that optimism is just as much of a mind-altering drug as all the other substances people partook of in the 1960s. In truth human history is just as likely to go round in circles as upwards to enlightenment. After our brief flirtation with literacy and printing presses, for example, we seem to be returning – via graphic novels and TikTok videos – to bashing each other over the head and grunting at one another. In this study a team of researchers, led by Kheizaran Miri, from Torbat Heydariyeh University of Medical Sciences in Iran, compared the effectiveness of two semi-literate modes of communication – infographics and video feedback – at teaching cardiopulmonary resuscitation to nursing students. The researchers found that whereas infographics were better at teaching students knowledge about cardiopulmonary resuscitation video feedback was better at teaching them practical skills.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05763-x>

## Getting nursing students ready for clinical practice

**Source:** Nurse Education Today

**In a nutshell:** In this study Wie How Darryl Ang, from the National University of Singapore, led a team of researchers evaluating the effect of a “psychological readiness programme and final clinical practicum,” in a study of 148 final-year nursing students. The psychological readiness programme led to significant changes in the students’ anxiety and patient-centredness scores and “the accumulated effects of the psychological readiness [programme] and clinical practicum showed significant improvements in students’ practice readiness and confidence.” However, there were no significant improvements in the students’ depression, stress, and resilience scores.

You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2024.106317>

## Can you teach caring to nurses?

**Source:** Nurse Education in Practice

**In a nutshell:** Famously grumpy novelist Evelyn Waugh was once asked to square his curmudgeonly behaviour with his devout Catholicism. He was a bit indignant and replied “but imagine how much more awful I’d be if I *wasn’t* a Christian.” Whether you can teach people to be caring is a moot point. In this study Nevin Dogan from Siirt University and Zehra Gocmen Baykara from Gazi University studied the effect of education based on the [Theory of Human Caring](https://online.utulsa.edu/blog/theory-of-human-caring/#:~:text=Registered%20nurse%20Jean%20Watson%20developed,sick%2C%20and%20restoring%20health.%E2%80%9D) on nursing students’ caring behaviours and ethical attitudes. 95 students took part in the study which found that the training led to significant differences in the students’ caring behaviours and ethical attitudes. The participating students said they were satisfied with the education provided, and said that the teaching methods had increased their motivation and positively influenced their perspectives on caring and its ethical dimensions.

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104072>

## Teaching nurses digital health

**Source:** BMC Medical Education

**In a nutshell:** Getting to grips with matters digital is increasingly important in healthcare, and in this study a team of researchers, led by Hongxia Shen from Guangzhou Medical University in China, assessed the effectiveness of an online Digital Health and Informatics Course at teaching 24 nursing students digital skills. The researchers found that the course improved the students’ knowledge and comprehension of key digital and health information topics. The students were more aware of the benefits of informatics in clinical practice and the role of healthcare professionals in informatics and digital health. The students reported “high satisfaction with various aspects of this course, including the opportunity to explore broad horizons in informatics for future careers, engaging in group discussions, and analysing case studies on the use of informatics and digital health in clinical practice.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-05785-5>

## Learning communities – coming to a hospital near you?

**Source:** Nurse Education in Practice

**In a nutshell:** In this study Wendy M. Heemskerk, from Leiden University Medical Centre in The Netherlands interviewed people who had taken part in three hospital learning communities. Seven themes emerged from the interviews which were:

* Learning community features
* Learning community preconditions
* Learning community needs
* Impetus
* Application
* Research context
* Meaningfulness

“Individual members applied acquired knowledge, skills and attitudes later or in other situations. Depending on the case, collective application manifested as inventing, consulting, or reusing, but this seemed less sustainable in the research context at the time.”

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.104084>