



Joint Education and Training Library



# Education Bulletin – February 2024

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## Dental Education

### When the dentist's chair goes virtual

**Source:** BMC Medical Education

**In a nutshell:** Eventually the physical world will disappear and be replaced by a virtual one, fading away into nothingness like the Cheshire Cat, while Elon Musk and Mark Zuckerberg strip to the waist and fight over the last fig roll and can of Irn-Bru in the survival pod. Who knows whether virtual-reality dental simulators will fit into this scenario, but in this article Hossain Koolivand, from Kermanshah University of Medical Sciences in Iran, led a team of researchers reviewing the evidence on them. The researchers found 14 articles which met their quality criteria and showed “the effective role of virtual-reality dental-simulators in improving students’ knowledge and practical skills.” They concluded “based on our findings, adding haptic technology to virtual reality can improve students' practical skills, hand skills, theoretical knowledge, self-confidence, and learning environment. Although a fair amount of research needs to be done, notably on cost-effectiveness, student satisfaction, and other potentially adverse effects, virtual reality is a growing phenomenon with immense potential.” And, of course, the trainee dentist don't have halitosis and six-week-old slivers of kipper to contend with when they poke around inside a virtual mouth.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-023-04954-2>

### Learning by doing (good) in oral health

**Source:** BMC Medical Education

**In a nutshell:** Being moderately intelligent and natural swots my wife and I both passed our driving theory test first time round. It was only when we got behind the wheel of our car that our troubles – and those of other road-users in South-East Cheshire – began. Learning by doing is a useful precept, something put to good use in this study by a team of researchers led by Liangyue Pan, from Sun Yat-Sen University in China. They studied the effectiveness of “an experiential service-learning project on oral-health examination and education,” in a study involving 108 fourth-year dental students. The project was made up of six sections: theoretical teaching, field investigation, data collection and analysis, investigation report writing and creating oral health education materials, oral health education and the students’ evaluation of the project. The researchers found that the students “demonstrated an improvement in their academic performance for theoretical knowledge related to Oral Health Examination and Education in comparison with the students in the previous year. Over 90% of students expressed their preference for the learning method of experiential service and believed that it helped them to better understand the course material. They also recommended this teaching method for future classes.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-023-05020-7>

## Tailoring the teaching to the trainee

**Source:** BMC Medical Education

**In a nutshell:** Once in a way one of the broadsheets gets all excited about the idea of personalized medicine. In my case I would like this to feature coffee, freshly-creased newspapers, mahogany-panelled consulting rooms and obsequiousness, although I suspect – given the current financial constraints on the NHS – it will run no further than Johnny Cash and Mozart as the call-holding music. IT allows for all sorts of personalization though and in this study a team of researchers, led by Lily Azura Shoaib, from Universitii Malaya in Malaysia, studied the effectiveness of software which allowed dental students’ learning styles to be matched to instructional strategies. 255 dental students took part in the study answering 44 questions designed to work out their learning style. The collected data was used to map the students’ learning styles against a set of instructional strategies. The system was able to instantly generate a list of suitable instructional strategies for each dental student and “demonstrated perfect precision.”

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-023-05022-5>

## General Healthcare Education

### Transfer skills, not a virus

**Source:** Personnel Review

**In a nutshell:** Managers often cascade training down through the ranks. By the time apathy, diffidence, and Chinese whispers have taken their toll what started out as a picturesque moss-covered waterfall in the Lake District has quite often turned into the sorry dribbling of a prostate patient trying to squeeze out a sample after three coffees and a can of Lucozade. In this study Ana Junça Silva, from the University of Lisbon, and Deolinda Pinto from IPT (also in Portugal) studied the knowledge transfer of Covid precautions during the Pandemic. They found that the “motivation to transfer,” had a significant indirect effect on the relationship between colleagues’ and supervisors’ support and employees’ performance. When self-efficacy (people’s confidence that they could comply with the new procedures) was higher the link between motivation to transfer and employees’ performance was stronger. “Thus, adaptability and support, both from colleagues and the supervisor, are determining factors for knowledge transfer and resultant performance in extreme contexts, such as the Covid-19 Pandemic.” The researchers also found that the most-significant predictors of transference were self-efficacy and the motivation to transfer the learned knowledge.

You can read the abstract of this article at

<https://doi.org/10.1108/PR-09-2022-0629>

## Can you teach digital citizenship?

**Source:** Sustainability

**In a nutshell:** Voluntary or not, it takes a [Diogenes-like](#) indifference to the world not to be a citizen of the digital universe in some capacity or another. What type of citizen is anyone's guess. Some take the part of the unfortunate souls who used to wander up and down Oxford Street with sandwich boards proclaiming the merits of veganism or theosophy; others form up into mobs hounding those with unfashionable opinions and small follower counts; and a select few amuse, entertain, and bring people together. Knowing how to be good in the online world – digital citizenship – was the subject of this study by Erkan Bal and Umut Akcil, from Near East University in Nicosia. They studied the effectiveness of a digital-citizenship curriculum developed using online teaching for undergraduate students. 39 students took part in the programme and the researchers found that it improved the student's digital citizenship and that the students' opinion of it was positive.

You can read the whole of this article at

<https://www.mdpi.com/2071-1050/16/1/445>

## Online learning – disciplined disciples or distracted dunces?

**Source:** BMC Medical Education

**In a nutshell:** Along with the evils of sans-serif fonts, the [Beeching Axe](#), and the [1972 Local Government Act](#) one of the few other hills I'm prepared to die on, so to speak, is that nothing is more interesting than history. All well and good when you're doing a history degree, not so great when you're studying to become a librarian, or doing your mandatory information-governance training; at which point your capacity for self-regulated learning plummets quicker than a rhinoceros base jumping from the top of Blackpool Tower. Add in an online environment where there's always plenty of history available to distract you and things get even worse. But what do healthcare students make of it all? In this study a team of researchers, led by Xiaoyue Xu, from Xu Zhou Medical University in China, attempted to find out. They studied 1,298 health-professions students who – they found – demonstrated “intermediate,” self-directed learning ability. The stronger the students' professional identity the greater was their capacity for self-directed learning, and “academic atmosphere,” also predicted self-directed learning too.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04876-z>

## What makes for engaged online learning?

**Source:** Sustainability

**In a nutshell:** Whether it's imaginary cricket matches, potential pitstops on a Land's End-John O'Groats cycle trip, or routes around Crewe avoiding tricky roundabouts I'm prone to drift off after about five minutes of listening to someone talking. Things are even worse online with the potential to become invisible and

inaudible, and the myriad distractions offered by Wikipedia and X. But what helps to keep students focusing and engaged in online education? That was a topic a team of researchers, led by Olusiji Adebola Lasekan, from the Catholic University of Temuco in Chile, investigated in this study. 452 students took part in the study which found that the quality of course content was “a cognitive predictor of students’ engagement.” “Possession of a designated private-space boost,” and asking students to use their webcams was also “critical for students’ engagement.” “Teaching presence,” – promoting interactive classrooms and providing rapid feedback – was also an important factor affecting engagement.

You can read the whole of this article at  
<https://www.mdpi.com/2071-1050/16/2/689>

### Online learning. Is it all about attitude?

**Source:** International Journal of Educational Technology in Higher Education  
**In a nutshell:** Transformers are used to reduce the large voltage of mains electricity into the rather smaller amount of power needed to top up a mobile phone, tablet, or toy train. Energy flows at lightning speed down wires, disappears into them, and emerges in homeopathic quantities; not dissimilar, in fact, to the transmission of knowledge from circuitry into the human brain during online learning. In this study Seyum Getenet, from the University of Southern Queensland, led a team of researchers investigating how students’ attitudes and self-efficacy affected their engagement with online learning. The researchers found that “positive student attitudes and digital literacy significantly contributed to self-efficacy, which, in turn, positively affected ... engagement.”

You can read the whole of this article at  
<https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-023-00437-y>

### Feeling belonging, and distance learning

**Source:** British Journal of Educational Technology  
**In a nutshell:** “Please accept my resignation,” cabled Groucho Marx to a club in Beverly Hills “I don’t care to belong to any club that will accept people like me as a member.” Like Groucho I remain ambivalent about the merits of belonging, simultaneously wanting its warmth and recoiling from its claustrophobic embrace. In this study Suping Yi, from Nanjing Normal University in China, led a team of researchers investigating the links between postgraduate students’ sense of belonging and their engagement with distance-learning courses. 308 postgraduate students took part in the study which found that a sense of belonging positively and significantly influenced academic self-efficacy, academic hardiness, and emotional engagement. Academic self-efficacy and academic hardiness had a positive and statistically-significant impact on postgraduates’ cognitive, emotional, and behavioural engagement.

You can read the abstract of this article at  
<https://doi.org/10.1111/bjet.13421>

### God, friends, and mental health in disabled students

**Source:** Sustainability

**In a nutshell:** No group of people are studied more often than students. They're handy for researchers to get hold of, and can easily be bribed with credits for their courses, pizza, or a free coffee in the canteen. Disabled students are no exception and in this study a team of researchers, led by Ebrahim A. Al-Shaer, from King Faisal University in Saudi Arabia, looked into the links between "religiosity," social connectedness, and mental health in a sample of 390 of them. They found that stress, depression, and anxiety negatively and significantly affected the quality of life of students with disabilities. Social connectedness reduced the negative effects of stress but not depression and anxiety, whereas religiosity reduced anxiety, but not depression or stress.

You can read the whole of this article at  
<https://www.mdpi.com/2071-1050/16/2/644>

### What really happened when classes went online?

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

**In a nutshell:** Whether they volunteer to be in a study or not (see above) all students are tested during their course, with the results providing fertile soil for pedagogical researchers. In this study a team of them, led by Claire V. Harper, from Edge Hill University, compared the results of biological-science students who were taught face-to-face with those who were taught using blended learning (a mixture of face-to-face and online). The researchers reviewed the results from seven different modules on the course. Four saw a decline in marks, two an improvement and one no change. And the researchers found that there was an increase in the number of students requiring reassessments. They concluded that "although there are positive benefits to incorporating an element of online learning for students, it is important to utilise this information in future module delivery planning to support the varying student cohorts of the future."

You can read this article at  
<https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-023-00435-0>

### How a green campus makes happy students

**Source:** Sustainability



**In a nutshell:** I recently watched the documentary series [Up](#) which followed a group of 14 people from the age of seven, checking in on them every seven years. One of the participants Neil had quite a rough time and was featured trudging sadly over some rocks to his tiny caravan in the wilds of Scotland. Feelings of pity and compassion were, in my case at least, mingled with a guilty feeling that I wouldn't mind a month or two up there with a few tins of pilchards and a Kindle. Green spaces can have all sorts of benefits for people's mental health and in this study Jun Zhang, from Northeast Forestry University in China, led a team of researchers studying the effects of green spaces on 550 students. They found there was a positive correlation between the sensory dimensions of the green spaces and the students "recovery experience," in them. The students "perceptual recovery and ability to be alone emerged as mediating variables in this process."

You can read the whole of this article at  
<https://www.mdpi.com/2071-1050/16/2/707>

### [How the few get through the MOOC](#)

**Source:** Sustainability

**In a nutshell:** Many young children express a desire to be an astronaut, footballer, or pop star. Their chances of making it are about as high as that of people struggling to the end of a massive online open course (MOOC) albeit with hours of tedium and a PDF certificate taking the place of ligament injuries and a Champions' League winners' medal. In this study Deming Shu, from Soochow University in China, led a team of researchers investigating what strategies made for success in students struggling through a MOOC. They found that the "core learning strategies used by college students in MOOC learning could be categorized into cognitive, resource management, and metacognitive types. Five learning strategies were frequently used: elaboration; interactive and cooperation; help-seeking; effort management; and information-selection strategies. However, association and questioning strategies were "infrequently employed... Therefore, educators must actively guide students to expand their innovative-thinking abilities by implementing these strategies."

You can read the whole of this article at  
<https://www.mdpi.com/2071-1050/16/2/716>

### [Role play and virtual reality? Run for the hills](#)

**Source:** British Journal of Educational Technology

**In a nutshell:** Most sane people would rather gouge their own eye out with a rusty compass, or parade naked down their local high street, save for a strategically-positioned Gregg's Cornish pasty, than indulge in role play. Given that virtual reality is – for the time being at least – an optional activity, it seems perverse to include role play in it rather than, say, hitting a six back over the bowler's head to win the Ashes or storming to a £100,000 jackpot on *The Chase* but there's no accounting for taste. In this study Chih-Hung Chen and Jia-Yu Su, from the National Taichung University

of Education in Taiwan, studied the effectiveness of a role-playing game combined with virtual reality. They found that compared to the students who experienced virtual reality but not role play taking part in role play “significantly enhanced the students’ perceptions of immersion, self-efficacy, and extrinsic learning motivation.”

You can read the abstract of this article at

<https://doi.org/10.1111/bjet.13436>

## Inter-professional Education

“So the decimal point was just a bit of coffee on your glasses?”

**Source:** BMC Medical Education

**In a nutshell:** “Nobody will be cross with you if you own up,” is one of the many lies adults tell children – at least you get a few smiles and a bit of cash out of Father Christmas and the Tooth Fairy. Children quickly pick things up though, and before we know where we are we’re losing mobile phones over North Sea ferries, or keeping our fingers crossed the police can’t retrieve our emails before our employment tribunal starts. Owning up to getting drug-doses wrong is the best thing to do as a health professional and in this study Lina Heier, from University Hospital Bonn, led a team of researchers developing and evaluating “a joint training concept for nursing trainees and medical students in Germany to improve medication-error communication.” 154 medical students, and 67 nursing students took part in the study which found the training led to significant improvements in “interprofessional error communication,” and “teamwork, roles, and responsibilities,” but not in “patient-centredness.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04997-5>

## Medical Education

You’re never too young to start being burnt out

**Source:** BMC Medical Education

**In a nutshell:** The Government recently floated the idea of raising the smoking age by a year, every year until the nation’s smokers (one in six of the population, by the way) would have had to produce a birth certificate proving they were 38 every time they nipped out for a packet of B&H. The policy has yet to become law, but whilst you might never be old enough to smoke under some legislative frameworks, you’re never too young to suffer from burnout. In this study Mabel Prendergast, from Imperial College London, investigated burnout among medical students. The students took part in a “reflection-based intervention,” which was made up of two tutorials covering the presentation, drivers, impact, and management strategies for burnout. The students showed “symptoms and signs of burnout, including exhaustion, lack of motivation and changes in personality.” However, they found that “the reflection-based intervention was effective at improving their perception of burnout and a

convenient tool to use, which could be implemented more widely and continued longer-term throughout medical school.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04948-0>

### How do students cope with pick-and-mix teaching?

**Source:** BMC Medical Education

**In a nutshell:** Researchers often trumpet the health benefits of some revolting Amazonian fruit, heedless of the fact that those sufficiently worried about their health to try it are unlikely to be frequent indulgers in marzipan, prawn-cocktail crisps, and doner kebabs. In much the same way educational techniques are unlikely to be used in isolation and are more often to be found combined with other methods of teaching. In this study Marcos Kubrusly, from Unichristus University Centre in Brazil, led a team of researchers testing how the combination of problem-based learning, traditional teaching, and practical activities affected 412 medical students. The researchers found that the students studying under these conditions had “strong levels of self-efficacy,” and that women, students who worked, and those who took part in extra-curricular activities had higher levels of self-efficacy.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-05016-3>

### Does teamwork make the dream work in medical education?

**Source:** BMC Medical Education

**In a nutshell:** Whether it’s compiling an evidence review or shifting manure on our allotment I’m perfectly happy to put a good solo shift in for the common good. Ask me to work in a team however and certain character traits – disliking being told what to do, a thin skin, and an inability to listen and act at the same time – come into play, not always with the happiest of consequences. In this study Irene Sterpu, from the Karolinska Institutet in Stockholm, led a team of researchers reviewing the evidence on team-based learning for undergraduate medical students. The researchers found 49 studies which met their quality criteria and concluded that “despite some differences in their results, the studies found that implementing team-based learning is associated with increased knowledge acquisition, student engagement, and student satisfaction.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04975-x>

### Can you teach teamwork using virtual reality?

**Source:** BMC Medical Education

**In a nutshell:** Some people approach teamwork like sheepdogs – eager, biddable, and chafing at the bit to do whatever is asked of them; others are like lions and fight for dominance, whereas I tend to be bit like a chameleon, having never seen a background I don't want to fade into. In this study Mehrnoosh Khoshnoodifar, from Beheshti University of Medical Sciences in Tehran, led a team of researchers investigating a new way of teaching students about caesarean surgery using virtual reality. The researchers identified six “micro-skills,” as training needs including: briefing, debriefing, cross-monitoring, the I'M SAFE checklist, call-out and check-back, and the two-challenge rule. The virtual-reality content “improved teamwork competencies in an interprofessional team performing caesarean section surgery.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04803-2>

### Why have fun when you can be efficient?

**Source:** BMC Medical Education

**In a nutshell:** From the [Desert Fathers](#), through the Flagellants and the C17th Puritans, to modern-day vegans giving up meat to “save the planet,” there's never been any shortage of people willing to make themselves – and even better, other people – feel miserable for a vague and non-specific higher purpose. In a low-key way giving up conferences (in themselves a latter-day version of the medieval pilgrimage) is part of the same trend with the chance for travel, meeting people, and a night out on the lash being sacrificed in the name of cost-savings, efficiency, and reduced carbon emissions. Covid accelerated this trend, of course, sacrifices of enjoyment being deemed necessary to prevent future recurrences of the Plague. In this study a team of researchers, led by Shu Li from Peking University People's Hospital studied the effectiveness of a “small private online course,” and case-based learning in continually-educating junior doctors on analgesia and sedation. 117 junior doctors took part in the study which found there was no significant difference in learning between an online approach and an offline one. 91.5% thought that online learning was a useful and accessible way to improve knowledge and skills; 95.7% thought they could interact well with group members; and 87.2% believed that they had a good degree of participation. All the teachers thought offline was more flexible in terms of teaching time and location.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04839-4>

### Stress, seminars, and students

**Source:** BMC Medical Education

**In a nutshell:** “That particular avenue of pleasure has been closed off,” complains Basil Fawlty when the subject of gambling crops up at Fawlty Towers. 21<sup>st</sup> century puritanism has led to the avenues of drinking and smoking being, if not completely closed off, then certainly discouraged for medical students as a way of coping with stress, but what are the alternatives? Less pleasurable perhaps, but in this study a

team of researchers, led by Benedikt Till from the Medical University of Vienna, investigated the effectiveness of a seminar “Coping with Stress,” aimed at first-year medical students. 137 students took part in the study and they were divided into three groups. One group went to seminars on site; one group attended online seminars; and the third group were controls. The students who took part in the on site seminar reported a reduction in some aspects of burnout; a decrease in stress; and an increase in knowledge about available “help resources.” Those who took part in the online seminar showed an increase in knowledge, but their levels of stress and burnout were unaffected.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-05019-0>

### [How a racy life can damage your grades](#)

**Source:** BMC Medical Education

**In a nutshell:** Those eager to point out the deleterious effects of drugs need go no further than point to the lack of achievements of Mick Jagger, David Bowie, Shane McGowan, and Damon Albarn, compared to the towering artistic legacy left by Ed Sheeran, Cliff Richard, and the Nolan Sisters. But does the same hold true for medical students’ exams? In this study a team of researchers, led by Anas Bitar, from Damascus University, attempted to find out. They found out that the consumption of such hard drugs as “tea,” “instant coffee,” and “weekly fast food,” were all linked to lower average grades, as was “water pipe consumption.” However “no significant association was observed between other dietary habits, cigarette smoking, and academic performance.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04950-6>

### [Kippers gone down the wrong way? Let me print you a new windpipe](#)

**Source:** BMC Medical Education

**In a nutshell:** Such are the variety of ways in which 3D printing can be used these days, it’s tempting to think that they might, one day, be used to print people a new body. Best to check beforehand, I suppose, that the page layout is on A4 rather than A5 (Warwick Davis) or A3 (Richard Osman). In this study a team of researchers, led by Madison V. Epperson, from the University of Michigan, studied the effectiveness of “a deployable curriculum with 3D printed skills trainers for altered airway management.” 42 junior doctors, working in anaesthesia, took part in the study. They were guided through a 75-minute curriculum on altered airway anatomy, including discussions of cases, videos of surgery, and hands-on practice with 3D-printed tracheostomy and laryngectomy skills trainers. The researchers found that the training led to an improvement in the doctors’ confidence and technical knowledge. In an assessment of their skills, carrying out five tasks, all the doctors completed the tasks successfully “demonstrating objective skills-based competency.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-05013-6>

[“How did that webcam get \*there\*?” “I was self-studying anatomy.”](#)

**Source:** BMC Medical Education

**In a nutshell:** “Self-studying anatomy,” conjures up images of unfortunate incidents with web cams similar to the “accidents,” people claim to sustain from sitting on Hoover attachments, or the cosmetics that mysteriously appeared on my daughter’s face after she “tripped and fell into Mummy’s make-up bag.” In this study Anna Pettersson, from the Karolinska Institutet in Sweden, led a team of researchers investigating how 127 medical students used digital resources in their anatomy “self studies.” Most of the students said that they spent more than 30 hours a week on self-study. Most used digital resources to prepare for exams, when they encountered difficulties, and after going through a section. They said they would use digital resources more if they were offered an introduction to them; if the resources were more accessible; and if they could interact with a tutor. The resources helped the students to understand anatomy, allowed them to make active choices, provided tools for repetition and memorization, accelerated and simplified their learning, and complemented other learning resources.

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04987-7>

[When film-making met physiology](#)

**Source:** BMC Medical Education

**In a nutshell:** As a bookish child who only had to look at a pot of paint to knock it over, I sadly failed to share in my classmates’ glee when we were told to build a model of a castle instead of read a book about them. For the selfie generation making a film about something might be said to fulfil the same function, creating joy among the outgoing and confident and sparking latent monasticism among the rest of us. In this study Noha N. Lasheen, from Galala University in Egypt, led a team of researchers investigating the use of film-making to teach first-year medical students physiology. Over the course of the Pandemic – when learning went online – the students were randomly allocated into 18 groups. A topic from the physiology curriculum was chosen and the students “formulated a related case scenario,” then made a video about it. The researchers concluded that “the project helped students to improve their skills in problem-solving, teamwork, active learning, communication, planning, and time management. In addition, it also increased their confidence in their abilities to learn, face unexpected challenges, and achieve goals.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04924-8>

## Can ChatGPT pass its public-health exams?

**Source:** BMC Medical Education

**In a nutshell:** It won't be long before one of the political parties decides to run an AI-powered hologram as its candidate for Prime Minister. It would be hard to tell with the Liberal Democrats and it promises an absence of sex scandals, ill-advised tweets, and [awkwardly-eaten bacon sandwiches](#). But could ChatGPT pass a public-health exam? That was the question a team of researchers, led by Nathan P. Davies, from Nottingham University, attempted to answer in this study. ChatGPT was provided with a bank of 119 publicly-available questions from the Faculty of Public Health's diploma exam to practise on. In the exam it passed three out of the four papers, "surpassing the current pass rate." Examiners were able to identify ChatGPT's answers with 73.6% accuracy and human answers with 28.6% accuracy. "Chat GPT provided a mean of 3.6 unique insights per question and appeared to demonstrate a required level of learning on 71.4% of occasions."

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-024-05042-9>

## Nurse Education

### It's a boy! Can I interest you in a spot of duty free?

**Source:** Nurse Education Today

**In a nutshell:** Whilst communication should probably be an important skill for most health professionals, entrepreneurship is not the first one that springs to mind. One suspects most patients aren't able, or in the frame of mind, to embrace new business opportunities although those who have just endured the restrictions of pregnancy might, I suppose, be keen to avail themselves of a duty-free trolley should one present itself. In this study Zehra Baykal Akmese, from Ege University in Turkey, led a team of researchers studying the effectiveness of a course designed to teach midwives communication and entrepreneurship skills. 117 first-year midwifery students took part in the course which, the researchers concluded, "improved the students' entrepreneurship and communication skills."

You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2023.106070>

## How to prevent a (professional) identity crisis

**Source:** Nurse Education Today

**In a nutshell:** One of the many contradictory messages sent out by the powers-that-be these days is the need both to bring your authentic self (lazy, misanthropic, passive, and easily-distracted in my case) to work, and to be professional at all times.

In this study Shuanglan Lin, from Chongqing Medical University, led a team of researchers investigating “the formation of professional identity,” (presumably not along the lines adopted by Leonardo di Caprio in [Catch Me If You Can](#)) in 93 nursing students. Interviews with the nurses revealed a dynamic process when it came to the formation of professional identity, a process made up of *Outsider of Nursing* [sic]; *Entering the Nursing Courses* [sic]; *Building Nursing Competence* and *Thinking and Acting Like a Nurse*. Six barriers to doing this were: *Conflict between Ideals and Reality*; *Sociocultural Stereotypes About Nursing*; *The Negative Impact of Covid-19*; *Pre-Internship Concerns*; *Struggling to Meet Expectations* and *Potential Danger and Discrimination in Healthcare Settings*. Enablers of developing a professional identity were: *Self-Motivation and Inner Belief Towards the Nursing Profession*; *The Power of Role Models*; *The Improvement of Nursing Capacity*; *Well Integration* [sic] *Into the Healthcare Professional Teams*; *Understanding of the Clinical Environment*, and *Recognition and Encouragement from Others*.

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nedt.2023.106087>

### [Coping with death and caring for the dying](#)

**Source:** Nurse Education Today

**In a nutshell:** With the possible exception of the TV licence people the only visit we can all expect in life is the last one from The Grim Reaper. Some run upstairs screaming and hide under the duvet, others conduct a civilized process of negotiation over tea and biscuits, while on a grey January morning in Crewe it’s tempting to imagine saying “well hello! What took you so long?” In this study Xiaona He, from Xinjiang Medical University in China, led a team of researchers studying 204 nursing students. The researchers assessed the students’ “hospice competence,” and their ability to cope with death. They found that the students’ overall hospice competency was low-to-moderate and that there was a positive correlation between the students’ ability to cope with death and their “hospice competencies.”

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nedt.2023.106080>

### [Adding virtual to the simulation games](#)

**Source:** BMC Medical Education

**In a nutshell:** It’s easy to imagine working in a critical-care unit being rather like a benign version of “[Whac-A-Mole](#),” albeit instead of bashing patients over the head in an attempt to make them go away the idea is to tend to them and stop them slipping out altogether, so to speak. In this study a team of researchers, led by Jian Yang from Wuhan University, studied the effectiveness of adding a virtual simulation to face-to-face training in teaching 122 third-year nursing students about working in an ICU. The students who took part in the virtual simulation on top of face-to-face training showed “significant improvement in clinical-judgement ability scores.” The



researchers concluded “this integrated non-immersive virtual simulation and high-fidelity face-to-face simulation program may benefit nursing students and newly graduated nurses in the ICU more than face-to-face simulation only.”

You can read the whole of this article at

<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04988-6>

### Can you do a virtual placement?

**Source:** Nurse Education in Practice

**In a nutshell:** Other than masochists most people go on holiday somewhere nicer than where they live. People who live in nice places tend not to go anywhere in case their house in St Ives gets bought by a derivatives trader from Hoxton who changes the locks and sets up a micro-brewery. For those of us who live in Crewe not on Capri, or in Runcorn rather than the Riviera it’s easy to see the attraction of virtual reality but can it be used to give nursing students a clinical placement? In this study a team of researchers, led by Kate Morgan from HRCG Care Group in Runcorn, attempted to find out. They developed a virtual practice placement attended by 184 students. The placement “required considerable resources to run,” but was rated highly by the students. Four main themes emerged from questionnaires filled out by the students which were:

- Increased understanding of community healthcare and holistic approaches to care
- Developing interpersonal skills
- A positive effect on future career opportunities
- The value of realistic case studies

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2024.103884>

### Simulation and desperation

**Source:** Nurse Education in Practice

**In a nutshell:** Of all the jobs nurses do talking to parents about the treatment of dying children must be one of the toughest. It’s hard to see how this can ever be fully prepared for, but in this study a team of researchers led by Hsiao-Wei Chen from Taipei City Hospital attempted to see if “scenario-based simulation,” would help. 79 perinatal nurses took part in the study. Half took a palliative communication course specifically designed for nurses in perinatal units whilst the other half went to traditional lectures. The nurses who took part in the simulation showed significant improvements in confidence, competence, and performance compared to the group who had traditional lectures and the nurses who took part in the simulations gave their learning higher satisfaction ratings.

You can read the abstract of this course at

<https://doi.org/10.1016/j.nepr.2024.103885>

## Emotional regulation and empathy

**Source:** Nurse Education in Practice

**In a nutshell:** Emotional regulation can vary – in my experience at least – widely from context to context. So, for instance, while I can resort to [Malcolm Tucker](#)-levels of inventive swearing when faced with a malfunctioning printer or rawl plug I can display saintly levels of patience with the children and guinea pigs.\* In this study Meng Na Li, from Xinxiang Medical University in China, led a team of researchers investigating the links between emotional regulation and empathy in a sample of 761 nursing students. The researchers found a significant positive correlation between emotion regulation, empathic ability and “self-harmony.” There were also significant positive correlations between emotion regulation, empathic ability, and emotional intelligence. Self-harmony and emotional intelligence partially mediated the relationship between emotion regulation and empathic ability.

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nepr.2024.103882>

\*You’d need to ask Mrs G about my patience levels with her.

## What do students make of virtual reality?

**Source:** Nurse Education in Practice

**In a nutshell:** Virtual reality would have transformed my experience of student life allowing me to miss open goals and slice clearances into touch at a virtual Wembley, and bowl full tosses and get out for nought at Lord’s – humiliation simulation if you will. But what do today’s nursing students make of it? That was the question a team of researchers, led by Gonul Bodur, from Istanbul University, attempted to find out in this study. The researchers found that the students “generally held positive views towards virtual-reality technologies and exhibited a high level of self-directed learning skills,” with men scoring higher than women.

You can read the abstract of this article at  
[https://www.sciencedirect.com/science/article/pii/S1471595324000106?dgcid=rss\\_sd\\_all](https://www.sciencedirect.com/science/article/pii/S1471595324000106?dgcid=rss_sd_all)

## Dealing deftly with delirium

**Source:** Nurse Education in Practice

**In a nutshell:** Between Donald Trump’s haircuts, Nicola Sturgeon and her camper van, Joe Biden’s wobbly cognition, and Liz Truss launching a movement called Popular Conservatism it’s easy to imagine that you’re suffering from delirium; and that when you recover, a nurse will be round with a cup of tea and a biscuit in time for you to celebrate Bradley Walsh’s fifteenth year as Prime Minister. In this study, a

team of researchers, led by Yunchuan Zhao from Boise State University in Idaho, reviewed the evidence on interventions designed to teach nurses how to manage delirium. The researchers found 17 articles that met their quality criteria which covered a variety of interventions such as workshops, simulations, group discussions, online modules, and one-to-one coaching. The interventions focused on defining delirium, risk-factors, assessment and management and enhanced nurses' perceptions of delirium, boosting their confidence and knowledge. The interventions also led to increased compliance with delirium assessment and management protocols, "which ultimately resulted in improved documentation accuracy and patient outcomes."

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nepr.2024.103887>

### Board games and ECMO

**Source:** Nurse Education in Practice

**In a nutshell:** Given the propensity of dice to go missing the introduction of board games into medical education seems fraught with risk with any jubilation to be gained from throwing a double six being cancelled out by a dice getting stuck in Mrs Thompson's windpipe. In this study a team of researchers, led by Hsin-Yi Wang from Mackay Memorial Hospital in Taiwan, investigated the use of board games to teach intensive-care unit nurses about extra-corporeal membrane oxygenation (ECMO). 73 nurses took part in the study. 37 of them used board games to learn about ECMO, and 36 "completed the training through a traditional teaching approach." The researchers found that the group who used the board games "demonstrated significantly higher scores in ECMO care knowledge, clinical reasoning and learning engagement than the control group." This was an improvement that was still there three weeks after the intervention had finished.

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nepr.2024.103895>

### Smartphone addiction and nursing students

**Source:** Nurse Education in Practice

**In a nutshell:** As a wannabe Chaser with a thirst for trivia, and with an incurably curious son to cater to I often find myself resorting to my smartphone; all well and good when you're finding fascinating facts out about black holes, not so good when you're reading your 15<sup>th</sup> article of the evening about "Stunning market towns two hours from London where you can buy a one-bed flat for £250,000," from the Daily Express while the dishes remain resolutely unwashed downstairs. In this article Bo Zhou from Huangshan Vocational College of Health in China, led a team of researchers analysing the research on smartphone addiction in nursing students. The researchers found 39 articles which met their quality criteria from 15 different countries. Rates of smartphone addiction ranged from 19% to 72%, and averaged 40-50%. Physiological harms included: sleep disruption and vision concerns.

Psychological problems included addiction – correlated with increased anxiety and depression – a decline in self-esteem; and learning and attention problems. Social harms included “challenges in interpersonal relationships,” and a decline in social abilities. Risk factors for smartphone addiction included “interpersonal relationship anxiety,” perceived academic pressure, and stress.

You can read the abstract of this article at  
<https://doi.org/10.1016/j.nepr.2024.103874>