



Education Horizon-Scanning Bulletin – January 2021

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Dental Education

Burnout and the dental student

Source: BMC Medical Education

In a nutshell: In this study, Simin Z. Mohebbi from Tehran University led a team of researchers investigating burnout in “senior dental students”. 131 students took part in the study which found that the highest burnout score was in the “domain” of “overload”, whereas the lowest score was in the domain of “neglect”. The most-frequently mentioned motivation for studying dentistry was the money with the least-frequently mentioned being failure to get into other fields. The more altruistic students’ motivations were the more likely they were to suffer from burnout whereas the students who had been motivated to study dentistry by other people’s advice were least likely to feel burnt out. “The burnout score was higher in students with inadequate or moderate financial support from the family and lower in students whose mothers’ educational level was high-school diploma or lower”.

You can read the whole of this study at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02475-w>

General Healthcare Education

When healthcare students go back to school

Source: BMC Medical Education

In a nutshell: Street cred is a relative concept. For children in Year 4 those at the apex of primary school seem like demi-gods. For children starting secondary school sixth formers look like Mount Olympus come down to Earth and for school children students – or at least some of them* - can feel like a combination of James Dean and Sophia Loren. It was perhaps with this (and the development of the students themselves) in mind that the French Government started a scheme in 2018 where healthcare students went into “educational or social institutions, mostly high schools”, to teach people about topics such as healthy eating, exercise, addiction, and sexuality. In this study, Enora Le Roux from the Université de Paris, led a team of researchers investigating how it all went among a group of students in the French capital. Two-thirds did not feel sufficiently prepared to deliver preventive health interventions†. However 99.2% of those on the receiving end liked them (or were too polite to say they didn’t). 83% of the “host institutions,” agreed to welcome students again. “For students, the reporting of a satisfactory health-service experience was associated with the reporting of skills or knowledge acquisition. Delivering actions in high schools and to a medium-sized number of beneficiaries per week was associated with students’ satisfaction”.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02472-z>

*It's doubtful whether this author ever inspired much awe in those junior to himself

†It's also doubtful whether anything short of a lion tamer's whip and a good supply of tear gas could make one feel adequately prepared for a classroom full of French teenagers

The more you know, the more you want to know

Source: Learning and Motivation

In a nutshell: Like salted peanuts, Quality Street and prawn-cocktail KP Skips, knowledge can be a bit moreish. Once the hard part of stepping outside one’s psychological front door has been accomplished a few strides along the path reveal endless vistas of information

waiting to be explored. Despite the turgid horrors of the driving theory test many academics persist in believing the above and in this study, Annie S. Ditta from the University of California led a team of researchers investigating the effects of exposure to information on motivation to learn. They found that watching a TED talk video on any topic led to an increase in motivation to continue learning about that topic and other topics more generally.

You can read the abstract of this article at

<https://www.sciencedirect.com/science/article/abs/pii/S0023969020301612?via%3Dhub>

Positive psychology and students' wellbeing

Source: International Journal of Mental Health and Addiction

In a nutshell: Everyone with an ounce of sense knows that *Frasier* is as far superior to *Friends* as Lewis Hamilton's car is to my beloved 10-year-old Nissan Note. And everyone who watches *Frasier* knows that psychologists aren't immune from the odd mental quirk themselves. In this study, Yasuhiro Kotera from the University of Derby examined how different strengths and qualities affected the wellbeing of 145 psychotherapy and occupational-therapy students. They found that resilience and self-compassion predicted mental wellbeing and that self-compassion partially mediated the relationship between resilience and mental wellbeing. You can read the abstract of this article at

<http://dx.doi.org/10.1007/s11469-020-00466-y>

Online learning and postnatal depression

Source: Nursing for Women's Health

In a nutshell: Sleepless nights, crying and changing nappies can be a shock to anyone's system but for some mothers things can prove harder to handle and many of them develop postnatal depression. In this study, Danielle R. Beasley from the University of South Florida led a team of researchers investigating the effectiveness of an online "educational intervention", which took the form of "a self-directed learning activity in the form of a slide presentation on the virtual platform REDCap". The nursing and medical students who took the course "exhibited a mean increase for knowledge, self-efficacy, and motivation".

You can read the abstract of this article at

<http://dx.doi.org/10.1016/j.nwh.2020.11.004>

Interprofessional Education

Making an interprofessional cake without sinful ingredients

Source: Nurse Education Today

In a nutshell: Once in a way people attempt to make cakes without dairy products or sugar or gluten - or sometimes in the absence of all three - despite the fact that the resulting products are usually only fit for filling in the depression in the back garden where Snuffles the guinea pig's grave has collapsed. In much the same way researchers often try and get different types of healthcare professionals mixing in the absence of alcohol and physical contact. The latest to have a go were a team of researchers led by Jacqueline G. Bloomfield from the University of Sydney who set up a "large-scale inter-professional workshop", for first-year medical, nursing and pharmacy students. 80.8% of the participants rated their workshop experience as good or very good and nearly two-thirds (64.6%) said that it had changed how they thought about other health professionals. You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2021.104777>

Making an inter-professional cake without real life

Source: Nurse Education Today

In a nutshell: Taking even fewer risks with healthcare students' morals (see above) were a team of researchers led by Jia Qiao from Wuhan University in China who reviewed the evidence into interprofessional education carried out via "immersive virtual reality simulation [IVRS]."^{*} They reviewed 2,352 articles finding 12 which met their quality criteria. These showed that the experiences of students participating in IVRS "centred on enhanced cooperation and communication across the disciplines. They obtained a more accurate picture of the patient and developed an interdisciplinary care plan. After the IPE session, they had greater appreciation of the importance of a team approach and shared learning. Students acknowledged the usability of virtual worlds (VWs) and appreciated the immersive learning experience that was offered. They gained valuable insight into mutual roles and believed that this experience would benefit their role as a health care team member".

You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2021.104773>

*Of course you never know what people are getting up to while their video and sound are on mute

Medical Education

Lumbar punctures: Time to get real?

Source: BMC Medical Education

In a nutshell: Other than "we've booked you in to a drama workshop," few things strike fear into the heart like "we've decided you need a lumbar puncture." Sticking needles into somebody's spine is nobody's idea of a good time, except for the most confirmed sadomasochist. In this study, Sinead Gaubert from the Université de Paris led a team of researchers investigating the real-life effectiveness of simulation-training for medical students carrying out lumbar punctures. 115 students took part in the study which found that the simulation training led to significant improvement in the students' theoretical knowledge and confidence levels. Compared to a control group the group who had simulation training also had a higher success rate for their first lumbar puncture and needed help less often.

You can read the whole of this article at

<https://bmcmemeduc.biomedcentral.com/articles/10.1186/s12909-020-02452-3>

Are lecturers ready for neuro-divergent students?

Source: BMC Medical Education

In a nutshell: Being neuro-divergent covers a wide variety of differences including autism, attention-deficits, dyslexia and dyspraxia among others. At least some neuro-divergent people might end up as medical students but are lecturers really ready to cope with them? In this study a team of researchers led by Eloi Magnin from the Centre Hospitalier Universitaire de Besançon in France attempted to find out. 67 lecturers took part in the survey. Many of them said they might have come across neuro-divergent students: dyspraxia 33%; dyslexia 46%, autism 68%, ADHD 75%. The effects on students and teachers were considered important but the lecturers' knowledge of neuro-diversity and how they could adapt their teaching to help neuro-divergent people was limited. The teachers were concerned about the ethical implications of offering neuro-divergent students extra help but were interested in receiving specialised training. You can read the whole of this article at

<https://bmcmemeduc.biomedcentral.com/articles/10.1186/s12909-020-02413-w>

Career identity and the junior doctor

Source: BMC Medical Education

In a nutshell: Career identity is defined as “the ability to substantialise career goals, and results from the social-learning process achieved through interactions with others”. In other words working out what you want to get out of working life and learning from other people how to get it. In this study, Hye-Jin Lee from the Korea University of Technology and Education and Moonsang Ahn from Chungnam National University College of Medicine investigated this process in 11 interviews with junior doctors at a university hospital in Korea. Seven themes emerged from the interviews which were:

- Self-reflection through internship training
- Practical awareness of the internship programme’s operation
- Perception of individual competence
- Recognition of mentor importance
- Situational awareness in the clinical department
- Relationship experience
- Experience of institutional limitations

You can read the whole of this article at

<https://bmcmemeduc.biomedcentral.com/articles/10.1186/s12909-020-02451-4>

Does burnout make you a worse doctor?

Source: BMC Medical Education

In a nutshell: Unlit matches have the potential to bring light, life and enjoyment – whether it’s candles on a birthday cake, gas under a curry or a post-prandial cigar, burnt-out ones; not so much. But while being burnt out at work – emotionally exhausted, unable to make personal connections and feeling unable to accomplish anything – is miserable for those involved does it actually impair one’s ability as a doctor? In this study, Philippe Guillou from the University of Strasbourg led a team of researchers trying to find out. 199 junior doctors took part in the study which found that there was no significant correlation between burnout status and scores on a clinical-reasoning test. You can read the whole of this article at

<https://bmcmemeduc.biomedcentral.com/articles/10.1186/s12909-020-02457-y>

How has the pandemic affected medical students?

Source: BMC Medical Education

In a nutshell: In this study, Aaron J. Harries from the University of California San Francisco School of Medicine led a team of researchers attempting to assess how the coronavirus pandemic had affected medical students, both educationally and psychologically. 741 students answered a questionnaire. 93.7% of them were not involved in clinical rotations with in-person contact at the time of the study. Reactions to being removed were mixed. 75.8% felt it was appropriate, 34.7% felt guilty, 33.5% disappointed and 27% relieved. Three-quarters felt the pandemic had significantly disrupted their medical education and three-fifths believed they should continue with their normal clinical rotations during the pandemic. 83.4% were happy to accept the risk of infection if they returned to a clinical setting. 84.1% felt at least somewhat anxious. The most important things they said would make them feel safe were: adequate PPE (53.5%); proper testing (19.3%) and antibody testing (16.2%).

You can read all of this article at

<https://bmcmemeduc.biomedcentral.com/articles/10.1186/s12909-020-02462-1>

Soft skills and specialties

Source: BMC Medical Education

In a nutshell: We take it for granted that doctors know their gluteus maximus from their distal humerus, but there are also a range of “soft skills”, that help them to become good physicians. In this article, a team of researchers led by Elena Zelesniack from the University Medical Centre in Hamburg-Eppendorf asked 195 practising doctors from 19 different specialties about the personal qualities which made for a good doctor in their specialism. For almost all of the specialisms motivation was the most-important quality. Psychomotor and multi-tasking abilities received high ranks in areas carrying out “surgical activities”, whilst “social-interactive competencies,” and “personality traits,” were highly rated by specialisms with an intense level of patient-physician interaction. “Mental abilities”, were only rated highly by radiologists and physiologists whilst “sensory abilities”, were only seen as important by those working in ENT or anaesthesia. You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02479-6>

Why won't lectures die?

Source: BMC Medical Education

In a nutshell: Despite increasing evidence that they are less effective than other methods of teaching lectures – like Dracula – have proved immensely resilient to being killed off with many lecturers’ lectures and presentation styles (if not their complexions and waist-lines) remaining eerily preserved since 1994. In this study, Brenda A. Bucklin from the University of Colorado School of Medicine led a team of researchers attempting to get to the bottom of lecturers’ use of – and views on – active learning (AL). 146 lecturers took part in the study which found that their knowledge of active AL was high. Advanced training was positively correlated with more knowledge of AL and AL methods were reportedly used in half of the continuing medical education (CME) activities in the majority (80%) of institutions. Commonly-perceived barriers to the use of AL were presenters’ lack of familiarity and a need for more time-consuming preparation. You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02447-0>

Getting to grips with bedside ultrasound

Source: BMC Medical Education

In a nutshell: Bedside care has come a long way since the days of wet flannels, a bunch of grapes and mugs of cocoa. One of the things doctors can now do at the bedside is to take an ultrasound picture of patients’ insides although this can inspire as much trepidation in the doctors as it does in the patients. In this study, a team of researchers led by Julia Aogaichi Brant from the University of Colorado examined the effectiveness of a point-of-care-ultrasound (POCUS) curriculum for junior doctors working in paediatrics. Among the first-year junior doctors POCUS comfort level improved by 61-90%. “Completed evaluations demonstrated improvement in their ability to recognize and interpret POCUS images. Second- and third-year residents reported educational effectiveness that was rated 3.9 on a 4-point Likert scale”. You can read the whole of this article at

<https://www.theguardian.com/society/2021/jan/20/neil-greenberg-hospitals-must-give-staff-better-psychological-ppe-covid>

Writing and the transfer of knowledge

Source: BMC Medical Education

In a nutshell: Many people feel they've got a book inside them although in most cases that's the best place for it. In this study, Songeui Kim from Seoul National University in Korea led a team of researchers who investigated the effectiveness of a writing intervention on 139 medical students. The students were divided into three groups: self-study; expository writing; and argumentative writing. Each group studied the given material using the method they were assigned and they were then tested on their comprehension and "[transfer of knowledge](#)". The two writing groups did better on transfer of knowledge than the self-study group although there was no difference between the two types of writing and there was no difference in comprehension between the writing groups and the self-study group.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-021-02485-2>

What do you do when the alarm goes off?

Source: BMC Medical Education

In a nutshell: In our house the clock-radio alarm is set to Radio Three which brings either a mumbled curse of "that's a bit much for this time of the morning," or "that's lovely, I'll just have five more zzz", depending on whether Petroc Trelawny has chosen Shostakovich or Mozart that morning. Alarms in operating theatres are rather more discombobulating and in this study, Peng Gao from the First Affiliated Hospital of Dalian Medical University* led a team of researchers attempting to help trainee anaesthetists cope with them. Anaesthesia undergraduate students performed significantly better after completing their simulation training in operation-room crisis management scoring better in clinical crisis-management and non-technical skills. "Following the simulation, the students described the experience as helpful in "combining theoretical knowledge with clinical practice", helpful with memorization, and in "promoting understanding of the subject," while "learning clinical logic authentically" and "inspiring learning interests". You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02477-8>

*Presumably the use of pictograms allows you to have not-so-snappy names on signposts.

Does visualisation work in medical training?

Source: BMC Medical Education

In a nutshell: Sportspeople often visualise the successful execution of a shot before attempting to carry it out in practice although – in this not-so-talented athlete's experience at least – visualization can just as easily feature missing the ball completely or ballooning it over the crossbar à la Waddle, Pearce and Southgate. In this study, Christian Collet from the Université de Lyon led a team of researchers attempting to find out whether motor imagery could improve medical students' performance at inserting peripheral venous catheters. 40 third-year medical students were divided into two groups. One group performed both real practice and motor imagery while the other group did not use motor imagery. The study found that although there was no difference in the ultimate performance of the two groups the group which had used motor imagery learned the procedure faster.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-020-02424-7>

Why bite-sized learning is different from canapés

Source: BMC Medical Education

In a nutshell: Canapés are one of the bane of civilized life. Too small to be a meal in themselves they invariably result in a stop at the chip shop on the way home and they place one in the inconvenient position of attempting to eat from a plateful of food held in one hand while holding a wine glass in the other; a state of affairs ineluctably leading to a dry-cleaning bill at best and tears at worst. Far better just to have a huge trough of prawn-cocktail KP skips down the middle of the room for everyone to help themselves. Bite-sized learning is a different plate of vol-au-vents altogether though and in this study, Kimberly D. Manning from Emory University in Atlanta led a team of researchers investigating the effects of bite-sized teaching “distilled into manageable units, focused on relevant schemas and delivered via brief peer teaching”. Four-fifths (79.8%) of the 106 junior doctors taking part in the study said that the bite-sized teaching was among the best “conference types”, in the curriculum. They liked the distilled content, multiple short-talk format, and peer teaching. Over three-quarters (76.1%) incorporated material from the talks into their own teaching and a similar percentage (74.1%) included what they’d learned in their clinical practice. Doctors who’d taught themselves were more likely to include knowledge in their own teaching and practice than those who hadn’t.

You can read the whole of this article at

<https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-021-02496-z>

When comics come to the classroom

Source: BMC Medical Education

In a nutshell: Failing to come to terms with our mortality, blaming other people for everything that goes wrong while not taking responsibility oneself, adolescent political posturing and a need for instant gratification; sometimes it seems that nobody ever has to grow up in the 21st century. It’s now deemed perfectly respectable for grown-ups to read comic books – aka graphic novels – and Harry Potter and in this study, Travis Sutherland from the University of Toronto led a team of researchers looking into the use of a comics/graphic novel-based curriculum on “enhancing empathy and a patient-centred approach to care in post-graduate medical learners”. Four themes emerged from interviews with the junior doctors taking part in the course which were:

- The curriculum accurately reflected and addressed issues in real-world medical practice
- The comics curriculum facilitated holistic development
- Participants appreciated the comics as an educational medium
- Participant feedback on the curriculum

The doctors noted the importance of empathy while, in line with previous research, acknowledging that theirs had decreased over the course of their studies. Factors behind this included increasing responsibility, long work hours, and competing work-life responsibilities. The doctors “felt the sessions developed resilience, an appreciation for the patient perspective, and communication skills. They appreciated the comics as a novel and engaging educational modality”. You can read the whole of this article – sadly not available in comic-strip format – at <https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-021-02491-4>

Nurse Education

Are nurses ready for cultural encounters?

Source: Nurse Education in Practice

In a nutshell: Encountering new cultures used to mean a squeamish sampling of an olive in Italy or not being able to find a decent cup of tea in France. Nowadays nurses are required to encounter at least three different cultures before breakfast and empathise whole-heartedly with all of them. In this study, Elizabeth-Mary O'Brien from University Hospital Limerick led a team of researchers reviewing the evidence on “cultural competence educational interventions”, not offering rabbis pork pies and other such insights. They found 14 studies which met their quality criteria. Two themes emerged from the studies which were: *increasing knowledge and understanding* and *developing commitment and confidence*. The researchers concluded that “engaging student nurses in learning activities that augment their understanding of, and commitment to, providing culturally competent care must include a variety of integrated culturally responsive pedagogical approaches made explicit and continuously developed across all learning opportunities”.

You can read the abstract of this article at

<https://doi.org/10.1016/j.nepr.2021.102966>

Mindfulness and nursing students

Source: Nurse Education Today

In a nutshell: Barred from face-to-face contact like the rest of us many nursing researchers have had to amuse themselves by picking over the bones of past research studies to see if they can glean anything from them; conducting a systematic review in other words. In this article, Xue Chen from Yanbian University in China led a team of researchers reviewing studies on mindfulness interventions for nursing students. The researchers found 10 trials which met their quality criteria. These showed that mindfulness reduced levels of depression, anxiety and stress among the students. The researchers concluded that “college nursing educators should consider adopting mindfulness interventions in nursing education to promote the mental health of students”. You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2020.104718>

Hand-in-hand with the third sector

Source: Nurse Education Today

In a nutshell: The Third Sector might sound like the title of a John Le Carré novel, but actually refers to charities and voluntary organisations that prop up civil society. Recently the Nursing and Midwifery Council changed their rules and allowed students to spend more time on placements with voluntary-and-community-sector (VCS) organisations. In this study, Richard G. Kyle from Public Health Wales led a team of researchers asking nursing leaders’ what they thought about this development. The researchers interviewed 24 nursing leaders who identified three key roles for the VCS: determining knowledge needs; developing curricula and; providing placements. Five key benefits of a VCS placement were: understanding the contribution of the VCS to care; seeing the context and complexity of people’s lives; challenging attitudes and perceptions; gaining confidence, knowledge and skills; and supporting career decisions. Three benefits for VCS organisations were found: cross-pollinating knowledge skills and networks; changing organisational cultures; and promoting careers in the VCS. You can read the abstract of this article at

<https://doi.org/10.1016/j.nedt.2020.104732>

Covid-19 and the clinical placement

Source: Nurse Education Today

In a nutshell: Belgium was one of the countries worst-affected by Covid-19. In these circumstances you wouldn't blame nursing students for deferring their clinical placements in favour of an extra stint in the library or old episodes of Poirot. Many did go on placements though and in this study, Dorien Ulenaers from Hasselt University in Belgium led a team of researchers investigating their experiences. Nursing students from nine different Belgian nursing schools took part in the study which found that the gaps identified by the students focused on the need for more psychosocial support, establishing regular contact with their clinical-placement supervisor, recognition of the difficult work situation, and the need for more space to unwind. Most of the students felt supported by their nursing schools. "Because of Covid-19 the role of the preceptor became more important: however, due to several reasons did not always meet the student's expectations". You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104746>

Are nurses getting enough training in asepsis?

Source: Nurse Education Today

In a nutshell: Remember MRSA? Rather like skiffle bands after the advent of The Beatles (coronavirus) it's fallen out of the spotlight now, but it's still there performing the nosocomial equivalent of summer seasons at Rhyl; poised at any moment for a comeback. One of the best ways of preventing MRSA infection is aseptic technique and in this article, Dinah Gould from City University London led a team of researchers asking 941 nurses what they thought about continuing professional education (CPE) insofar as it applied to this topic. Just over a quarter were happy with current arrangements. Satisfaction was associated with a perception of good support from employers, sound preparation before qualifying and practising aseptic technique regularly. A third of the nurses were dissatisfied with levels of education: reasons included witnessing "unwarranted variations in practice"; witnessing suboptimal practice requiring correction; a perception that standards had fallen through a decline in pre-registration preparation and opportunities for updating. Some employers had introduced training when they changed their practice; in other cases nurses said they got updates when they were required to carry out a new procedure, when moving to a different department or when changing employer. Train-the-trainer teaching was used in formal and informal arrangements for updating. You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104749>

Does group work create independent learners?

Source: Nurse Education Today

In a nutshell: Whether people produce better work in groups or on their own is a moot point although the precipitous decline in the quality of John Lennon and Paul McCartney's work after they left the Beatles might give one pause for thought. In this study, YongHong Wan from HeBei University in China compared the effectiveness of a "group cooperative class" and a conventional class at promoting self-directed learning. 99 students took part in the study which found that although there was no significant difference in their exam marks the students who worked as part of a group were better at managing their work and cooperating with others. The students who did group work also enjoyed the course more than those who attended conventional classes. You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104750>

[When nurses get the needle with children](#)

Source: Nurse Education Today

In a nutshell: Sticking needles into children is not usually in the top five reasons why people want to go into a career in nursing with those people who say it is usually being whittled out at the interview stage. They have to do it sometimes though and in this article, Sahar M.A. Hassanein from Ain Shams University in Cairo led a team of researchers investigating the effectiveness of “structured simulation-based PIVC (peripheral intravenous cannulation) training and [an] on-job assessment program on nurses’ knowledge, attitudes and performance”. 150 nurses took part in the study which found that it significantly improved the nurses’ knowledge, performance, and attitudes. The nurses got better at sticking the needles in, washing their hands and cleaning the infection site properly and dressing the puncture site. You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104776>

[What do students think about end-of-life care?](#)

Source: Nurse Education Today

In a nutshell: When it comes to matters of life and death most nurses would rather be lifeboat crew stopping people from going to meet their maker than pub bouncers politely asking people who’ve had enough to leave the building. However, it’s not always possible – or even advisable – to keep people alive and in this study, Sofi Fristedt from Jönköping University in Sweden led a team of researchers asking 287 nurses from different specialisms and 124 nursing students what they thought about end-of-life care. Nurses in acute care, paediatrics, and psychiatry had a less-positive attitude to end-of-life care whilst nurses working in palliative care had the most positive attitudes. You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104772>

[Are we getting physical assessment right?](#)

Source: Nurse Education Today

In a nutshell: Patients often get squeezed, prodded and poked in an attempt to find out what is wrong with them; a process more formally known as physical assessment. Only a fraction of the physical-assessment skills nurses learn during their studies are routinely performed in clinical practice and in this study, Mavis Weiting Tan from the National University of Singapore led a team of researchers reviewing the research into this topic. The researchers found 20 articles which met their quality criteria and from which six overarching themes emerged. These were:

- Role ambiguity
- Reliance on technology
- Collegial support and culture
- Practice variations across specialisms
- A lack of confidence and knowledge
- Over-teaching using the biomedical model

The researchers concluded that “there is … a need to evaluate the physical assessment content taught within nursing curricula, with emphasis on depth rather than breadth of skills. The ability to interpret physical assessment observations and develop clinical judgement need to be incorporated into the curriculum … [and] the physical assessment framework should move away from a biomedical framework to include nursing models such as nursing process and [the] clinical reasoning model”.

You can read the whole of this article at <https://doi.org/10.1016/j.nedt.2021.104759>

Student-led conferences: Recipes for disaster or valuable leadership training?

Source: Nurse Education Today

In a nutshell: Those of us who find getting out of the house with our trousers on and matching shoes and socks a logistical triumph on a par with the roll-out of the coronavirus vaccine are often content to adopt a “no contribution, no criticism”, policy when it comes to the question of leadership. One might expect students to adopt a similar approach, especially when hangovers, essay deadlines and remembering to buy milk are added into the mix. Many do volunteer to lead clubs and societies though and in this article a team of researchers led by De Juan Pardo from the Universitat Internacional de Catalunya, attempted to find out what students gained from organising student conferences. The researchers found that involvement in the student-led conference led to a “statistically-significant”, increase in self-perceived leadership competence among the students, including in their strategic thinking, emotional intelligence, impact and influence, and teamwork skills.

You can read the abstract of this article at <https://doi.org/10.1016/j.nedt.2021.104748>

Online Learning

Which works better anarchy or authoritarianism?

Source: Journal of Computing in Higher Education

In a nutshell: Many Indian restaurants have menus which, if not quite as lengthy as War and Peace, certainly run to a respectable short story. One could argue that choices of political system offer a similarly bewildering range of options from right- or left-wing authoritarianism, which both leave an equally bitter taste, through to chaotic libertarianism and anarchism via any number of inadequate and unsatisfactory compromises in between. But which system of leadership works best when students are doing online projects as part of their studies? This was a question which a team of researchers led by Ramazan Yilmaz from Bartin University in Turkey attempted to answer. They compared two groups of students; one group had shared leadership, while the other had vertical leadership with more input and control from an authority figure. The researchers found no statistically-significant difference between the groups in terms of self-regulated learning skills, motivation and “group-collaboration processes.” They found advantages and disadvantages to both approaches. The shared-leadership approach was good at fostering a sense of belonging to a group, and ensuring a fair distribution of responsibility and workload among its members whereas vertical leadership was useful in providing communication, cooperation and coordination among group members.

You can read the abstract of this article at

<https://link.springer.com/article/10.1007/s12528-020-09250-2>

Paramedics' Education

Evidence in the ambulance

Source: BMC Medical Education

In a nutshell: We don't normally expect ambulance staff to turn up with some leeches, a bit of blood-letting equipment and an astrological toolkit; evidence has moved things along a bit since then. Evidence has done its bit to improve things but is this reciprocated by paramedicine students? In this study, a team of researchers led by Anna Wilson from the

University of Stirling analysed 101 learning journals compiled by final-year paramedicine students in an attempt to find out. The researchers observed variations in the students' understanding of the purpose of literature analysis, the nature of medical research, and its relationship to practice. There were two main factors contributing to students getting to grips with evidence-based medicine: epistemological stance (their views on the nature of knowledge) and "opportunities for metacognitive learning [learning about learning] generated through peer interactions and self-reflection". The researchers also found that as students started to get to grips with the complexity of medical research they became more aware of its flaws, and more sceptical about its value. You can read the whole of this article at <https://bmceduc.biomedcentral.com/articles/10.1186/s12909-021-02490-5>

Physiotherapy Education

Does going digital work in physiotherapy?

Source: BMC Medical Education

In a nutshell: Whether it's shopping, friendship, work, or entertainment increasingly large chunks of life are mediated through a computer screen these days and healthcare education is no exception. In this article, Nina Bjerketveit Ødegaard from Oslo Metropolitan University led a team of researchers reviewing studies on digital education in physiotherapy. The researchers found 22 studies which met their quality criteria and included 10 in a meta-analysis. These showed statistically-significant effects for flipped classroom in "knowledge acquisition"; for interactive websites and apps on practical skills and for students' self-produced videos on a "practical skill in a cervical-spine scenario." "Overall, the effects indicated that blended learning designs are equally as or more effective than traditional classroom teaching to achieve learning outcomes. Distance learning showed no significant differences compared to traditional classroom teaching".

You can read the whole of this article at

<https://bmceduc.biomedcentral.com/articles/10.1186/s12909-020-02483-w>

Bicycle riding, touch typing and physiotherapy

Source: BMC Medical Education

In a nutshell: After the tricky first few goes most of us don't have to think too hard about riding a bicycle or touch typing (I'm still working on driving). In fact thinking too much about them as we do them can be positively counter-productive. This process of physical movements becoming "hard-wired", is known as motor learning (ML) and in this study a team of researchers led by Daniela V. Vaz from the Universidade Federal de Minas Gerais in Brazil, investigated the effects of a new educational intervention aimed at teaching physiotherapy students about ML. As part of the intervention the students had to choose a motor skill to acquire over 10 weeks providing them with "the opportunity to apply ML theory to practice in a personally meaningful way." By the end of the intervention the students' self-efficacy had significantly increased and was higher than that of more senior students and experienced professionals. The students' increased self-efficacy correlated with improved performance on an objective knowledge test and the students "learned to apply the elements of ML-based interventions present in the scientific literature to a real-life structured ML programme tailored to personal objectives". You can read the whole of this article at

<https://bmceduc.biomedcentral.com/articles/10.1186/s12909-021-02486-1#Abs1>