How has the COVID-19 pandemic changed the way we teach?

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The pandemic caused by the 2019 novel coronavirus disease — COVID-19 — has impacted all of society. Globally, we see daily reports of the increasing demand on healthcare resources, movement of staff across disciplines to support and care for those patients with a positive COVID-19 diagnosis, and community staff having to reduce visits or rely on virtual consultations. This is all underpinned by a rising sickness rate among health professionals. Nightingale hospitals have been built, yet there is a shortage of health professionals to staff these units. Despite these challenges' health professionals are managing the day-to-day needs of healthcare and the support of undergraduate and postgraduate students. Student nurses and other professionals allied to medicine have been able to assist in managing the increased workload, yet some clinical areas have been unable to maintain placements and clinical support for these students. Little has been discussed surrounding the effect the pandemic has had on undergraduate and postgraduate education. Universities have been required to continue to support students with their education and to 'flip' modules ensuring students are able to continue with their learning without attending clinical practice. Students are, however, missing out on their clinical placements and when they are on placement, they are needing to work in an environment that is far from normal.

This debate aims to explore how universities have met the changing needs of healthcare students and developed innovative ways of ensuring teaching meets learning outcomes.
Karen Ousey

1. We have been reading about staff shortages in the clinical areas. What are your thoughts about student nurses or students allied to medicine undertaking clinical placements in the current climate?

BB: The Wales Centre of Podiatric Studies at Cardiff Metropolitan University is very fortunate to have a purpose-built in-house clinical facility. Our podiatry clinics span two floors and can safely accommodate at least half of each year group, each with a patient, and a staff:student ratio of 1:6. These internal placements are staffed by members of Cardiff Metropolitan University's Podiatry Team, associate tutors, podiatrists from our key NHS partner organisation, Cardiff & Vale University Health Board, and a range of NHS Wales Health Boards. NHS staff shortages are mitigated against through close collaborative working between our Clinical Lead, Ms Keri Hutchinson, and these partners. Students also continue to experience external placement opportunities throughout Wales; however, an optional international placement has been temporarily suspended due to the logistics of travel outside of Wales.

HH: My thoughts are mixed and there are positive aspects as well as negative aspects. Positives include having a hands-on experience instead of the classroom and delivering basic nursing care, which is the cornerstone of nursing; learning about infection control; and caring for very sick people. The negatives, however, include the lack of mentoring support; using the students as only a pair of hands when on placement instead of providing a rich learning experience; and working in such a pressured, stressful environment...if they can cope on the wards now, they will cope in nursing!

LA: Students have often been part of staffing solutions within clinical areas, but this cannot simply be as a number on the unit/ward, we need to protect their education experience, ensuring learning remains a priority in the clinical area and mentorship is readily available. Students, like most other staff, will have the anxiety of contracting the COVID-19 virus, therefore, we need to ensure education is provided about personal protective equipment (PPE). Donning and the doffing needs to be part of foundation training before entering clinical work places and appropriate ongoing mentorship and support should be available.

What is not so easy to solve, is how do we manage the education of vulnerable, high-risk, students, those advised by the government to shield. Many of these students have been left with feelings of guilt through not being able to 'help in the

fight' and as such, we need to support them to deal with these emotions. However the real quandary comes from how do they complete their required practice hours to be successful in their course?

2. During the first wave of the pandemic some students could not attend their clinical placements. How did you support these students to ensure they met the learning outcomes of the course?

BB: During the initial lockdown period, internal and external placements ceased in line with Governmental guidance. The timing of the March 2020 lockdown fell, somewhat serendipitously, at the conclusion of our final year students' last external placement. Second year students where less fortunate, seeing their external placements cut short at this time. All students were supported with online lectures and tutorials as the podiatry team pivoted towards a wholly off-campus teaching approach. All learning outcomes could be met in this manner, with the exception of some clinical skills that could not be assessed online for the first- and second-year clinical modules. Third-year final clinical assessments went ahead, supported by online group tutorials and simulated clinical scenarios. This meant their graduation was not delayed. First= and second-year students were able to progress and are being assessed on-campus once more, in line with our 'hybrid' approach to learning and teaching.

HH: I had no involvement with students who could not attend clinical placements, but we did liaise with universities and provided online education resources including voiceover presentations and online live lectures.

LA: So many education providers changed provision to online platforms with pre-recorded sessions or live webinar-based classes. As much as this allowed the students to continue with their academic studies, there will always be limitations with these approaches. Thinking not only about clinical skills (e.g. how to apply wound dressings or help position patients) but also essential skills that are only truly learnt though practice and repetition, such as effective communication. Simulation and scenario-based training can fill some of these voids but not all. I have personally found it very difficult to provide the needed pastoral care to my students; the conversations over coffee are a vital part of education. As much as you can try to calm students' anxiety over a video call, it is much easier face-to-face.

3. We have read about 'flipping' learning for students during the pandemic, what does this mean to you and what impact do you think it will have on students?

BB: At Cardiff Metropolitan University, we have embraced 'flipped' learning across a wide range of undergraduate and postgraduate programmes. The methods employed by the podiatry team, at both undergraduate and postgraduate levels, have included sharing publications, pre-recorded lectures, and presentation slides before scheduled online tutorials to promote discussion and peer-to-peer learning during these sessions. While flipped learning is not a new concept, social distancing measures have expedited our move to such 'flipped classroom' environments. Initial feedback has been overwhelmingly positive, allowing students to digest materials and reflect on their learning ahead of live sessions and this approach will be continued post-pandemic.

HH: My understanding is that flipped learning is a blended approach where they are responsible for pre-reading and exploring the subject before engagement with educational staff and then they look at the subject in greater depth and problem solving when having 'class time'. I think this may be a positive approach, researching the topic and then looking at it in greater depth. This approach may not suit all students and I would think the more motivated would get more out of it than others, it may also be overwhelming for some if they are researching a new topic.

LA: I believe 'flipped' learning means different things to different people, as it appears to be interpreted and implemented differently even within the same organisation. For me, it means providing the students with some 'pre-work', then performing an active learning task before any face-to-face or live online meetings/sessions. I think the impact of this it still largely unknown; there has been positive feedback from some students and also some early research studies that conclude this approach in health education yields a significant improvement in student learning compared with traditional teaching methods. Personally, I think it is still a little too early to truly assess the impact of these changes in the approach to education. I also think we need to assess the impact to the individual student, not just in terms of learning but also in terms of cost, as much as they may save money from travel they will increase the cost of electricity, heating, IT provision, and internet connection etc.

4. How have you supported students to engage with clinical skills during the pandemic?

BB: With the exception of the initial lockdown period, our students have continued to enjoy on-campus clinical sessions, complimented by online clinical tutorials. On-campus activities have increased further in term two and while first-year students previously attended campus one day per fortnight, this was increased to weekly on-campus attendance. Second-year students who had previously attended campus one day per week for clinical practice sessions

have seen their online clinical tutorials also move on-campus. This move has permitted further development of hands-on clinical assessment skills. Our final-year undergraduate students continue to receive one day of online clinical tutorials and one day of on-campus specialist clinical placements each week, although some clinical skills sessions have also been moved on-campus. The continued online tutorials ensure constructive alignment of clinical skills preparation with the online assessments they will undertake at the end of the academic year.

HH: I have been acutely aware that students are needing more support so I have consciously sought students out and offered 'on the job' training. In my role as a TVN I have spent time with students undertaking wound assessment, completion of the wound chart, wound management, as well as pressure ulcer prevention and grading. I have been quick to praise excellent examples of positive patient interaction no matter how simple they may seem, for example assisting someone to eat lunch, combing hair or taking someone for a walk. I have explained how important these aspects of care are in nursing and how important it is to never lose sight of the basics.

LA: Now more then ever we need to think out of the box; at times it felt like we were 'making it up as we went'. But as we all become more savvy and familiar with working online the easier things became. We have used more videos, expert testimonials, and patient stories to try and fill some of the gaps. Where students have had the equipment and a willing volunteer, we have asked them to practice and video themselves. Watching the video back together has been a useful teaching experience in certain situations. I do think we could all get better at this, through using elements such as virtual reality for some clinical skills training.

5. We are now nearly 12 months into the pandemic, learning has become a mixture of face-to-face and online education and training (hybrid), what lessons have been learnt?

BB: Cardiff Metropolitan University's 'hybrid' approach to learning and teaching delivery has afforded many new opportunities for students and staff alike. We have prioritised clinical activity when students are on-campus. In short, we do not bring students on-campus for learning and teaching activities that could, otherwise, be provided online. Feedback has been very positive, with many students expressing a preference for this approach. Students recognise the benefits of reduced travel, opportunities for further reflection between teaching sessions and the ability to achieve an enhanced work–life balance. This has proved to be particularly important for parents with school-aged children, who have had the added responsibility of ensuring they also support their children's education from home. Many teaching sessions and assessments will remain online in future, offering advantages in terms of flexible access, quality assurance and reduced variability, particularly in relation to clinical assessments.

HH: The main thing is that we all now know how to use Teams and Zoom! Again positives and negatives — on reflection I think online communication is useful and you can reach and engage with more people than in a single room. It is also more time efficient, however, we are social beings and we need socialising to grow and develop. We need a blend of approaches and this can be managed in small groups just now. We have learned how to host education events and still comply with social distancing measures.

LA: My biggest lesson is online education takes twice the amount of time and effort to deliver, it is not as easy as it sounds! You need to be thinking all the time and innovating — how can students feel different wound dressings over a video call?

The other lesson I have learnt is the power and need of peer support — group work is possible on-line but the need for social and physical support and interaction when learning how to cope with difficult clinical situations. As a nurse myself, I always feels a little uncaring and detached over a video call. Nurses are naturally tactile people who understand how the power of the human touch can show you care.

6. When the pandemic ends do you think we will continue to use a hybrid model of delivering education in healthcare?

BB: Absolutely. The pandemic has clearly demonstrated that increased home-working is not only a viable option but increases productivity for many staff groups, both within and outside of academia. In future, this 'hybrid' approach will surely continue, with prioritisation of face-to-face clinical activities and online delivery of much of the academic content. A move to increased use of telemedicine in healthcare is also highly likely to continue, increasing access to virtual multidisciplinary teams, particularly for people living in remote, rural areas. Our 'hybrid' approach to learning and teaching has promoted a rapid upskilling of teaching staff, with many key lessons learned. Clinical training for final-year students is less concerned with the development of psychomotor skills and in many ways has been enhanced by affording lecturers increased time and opportunities to help students develop their 'soft' skills. Critical appraisal and clinical decision-making skills development are particularly well-suited to this online environment.

HH: Absolutely, the online education events have proved just how popular these events are, reaching tens of thousands of people. Online events and voiceover presentations can be widely accessed at a time suitable to the participant, but there will be times when face-to-face, hands-on

learning is required. I have just sent out a webrepol poll to all acute and community staff asking what their preferred education delivery is… watch this space.

LA: Yes certainly, I think this will improve the accessibility of education for many students. I certainly will not miss the time wasted on the daily commute. We will at least for some time, all be thinking, 'do we really need to be on campus to deliver this?'. Fundamentally, this has to be a blended approach with some face-to-face sessions as many students still struggle with online learning.

But what we really need, now more then ever, is excellent clinical mentors to guide students through the mental and physical challenges brought with working in the NHS during the COVID-19 pandemic. The complexity, constantly changing clinical environment and the huge loss of so many patients has been a challenge for all health professionals, even the most experienced. We need to protect the future of our workforces by telling them it is 'ok not to be ok.' In a way, the COVID-19 pandemic has provided the greatest start to a nursing career, as you have to be resilient and be able to cope with never ending change. The students may have had a baptism of fire but they will have learnt coping skills that they will be able to use every day of their career. WUK