

Healthcare Educators NET Conference 2025 - Sustainability of Healthcare Education: Enabling the Future

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Poster abstracts

Pi, 14:30 - 14:55

Introducing a virtual pre-placement orientation to support Student Wellbeing and Belonging at peripheral trusts

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Starting placements at peripheral hospitals can be an isolating and anxiety-provoking transition for medical students. This poster shares a low-resource, scalable intervention - a virtual pre-placement meeting, that improved preparedness, reduced anxiety, and fostered a more inclusive learning environment for students on placements at district general hospitals away from their university. We will explore key findings, including what students valued most and how the approach can be adapted across institutions. Join us to discuss practical strategies to support wellbeing, improve inclusivity and foster belonging, amongst students at peripheral placements.

Summary:

Background: Medical students, particularly in early clinical years, are vulnerable to anxiety and psychological distress, affecting wellbeing and academic performance. A systematic review found over a third of medical students globally experience anxiety, with early clinical exposure a significant stressor (Rotenstein et al., 2016). Transitions into unfamiliar environments can exacerbate this, particularly when placements are based at rural hospitals away from university. Although evidence is limited, one study suggests 66% of medical students who chose metropolitan employment view rural areas to be isolating, citing uncertainty about expectations and reduced peer support, which can undermine students' sense of belonging (Saikal et al., 2020; Walker et al., 2012). Conversely, positive rural placement experiences were associated with increased retention (King et al., 2016; Saikal et al., 2020; Smith et al., 2018).

This quality improvement project evaluated whether a structured, pre-placement virtual meeting could improve perceived preparedness, reduce anxiety, and foster a more inclusive learning environment for students undertaking placements at peripheral Trusts.

Methods: This multi-centre project was conducted across district general hospitals (Great Western Hospital and Wrexham Park Hospital), at two peripheral Trusts. Participants were fourth-year University of Oxford medical students in their first clinical year. One week prior to placement, students were invited to a virtual Microsoft Teams meeting providing an overview of the timetable, hospital layout and key contacts. Data was collected via anonymised pre- and post-placement surveys using mixed methods. Quantitative data was analysed descriptively to compare perceived anxiety and preparedness between meeting attendees and non-attendees. Qualitative data from free-text responses underwent thematic analysis using an inductive coding approach to explore themes around wellbeing, inclusivity, and the meeting's perceived value.

Findings: A total of 53 fourth-year medical students were included. Thematic analysis of pre-placement concerns identified key anxieties as understanding the timetable (28%), navigating the hospital layout (23%), and knowing what was expected of them (21%). Overall, 43% (23/53) of students attended the optional pre-placement virtual meeting. Among attendees, 54% (15/23) found the meeting useful, and 83% (19/23) found meeting their clinical teaching fellow (CTF) beforehand particularly useful. Qualitative feedback suggested the meeting helped reduce anxiety by providing clarity on logistics and expectations and by fostering a welcoming atmosphere through clear and organised communication from the CTFs. However, meeting peers beforehand was viewed as neutral (26%, 6/23) or not useful (48%, 11/23). Attendees reported lower first-day anxiety (57.1%, 8/14 not anxious at all) compared to non-attendees (26.7%, 8/30). A greater proportion of attendees also felt prepared or very prepared on their first day (69.1%, 9/13) compared to non-attendees (39.9%, 12/30). Suggestions for improvement included more practical arrival and orientation information (n=4), reducing duplication with in-person inductions (n=2), and including a structured teaching overview (n=1).

Conclusions: A brief, pre-placement virtual meeting improved student preparedness and reduced first-day anxiety on peripheral placements. Students valued the welcoming environment and early contact with teaching staff. As a low-resource, easily accessible and replicable intervention, incorporating virtual orientation offers a sustainable approach to enhancing student wellbeing and fostering inclusivity during peripheral placements.

References:

King, K., Purcell, R.A., Quinn, S.J., Schoo, A.M., Walters, L.K., 2016. Supports for medical students during rural clinical placements: factors associated with intention to practise in rural locations. *Rural Remote Health* 16, 1–15. <https://doi.org/10.3316/informit.225309907080606>

Rotenstein, L.S., Ramos, M.A., Torre, M., Bradley Segal, J., Peluso, M.J., Guille, C., Sen, S., Mata, D.A., 2016. Prevalence of depression, depressive symptoms, and suicidal ideation among medical students a systematic review and meta-analysis. *JAMA* 316, 2214–2236. <https://doi.org/10.1001/jama.2016.17324>

Saikal, A., Pit, S.W., McCarthy, L., 2020. Medical student well-being during rural clinical placement: A cross-sectional national survey. *Med Educ* 54, 547–558. <https://doi.org/10.1111/medu.14078>

Smith, T., Sutton, K., Pit, S., Muyambi, K., Terry, D., Farthing, A., Courtney, C., Cross, M., 2018. Health professional students' rural placement satisfaction and rural practice intentions: A national cross-sectional survey. *Australian Journal of Rural Health* 26, 26–32. <https://doi.org/10.1111/ajr.12375>

Walker, J., DeWitt, D., Pallant, J., Cunningham, C., 2012. Rural origin plus a rural clinical school placement is a significant predictor of medical students' intentions to practice rurally: a multi-university study. *Rural Remote Health* 12, 1908. <https://doi.org/10.3316/informit.330120370407981>

Keywords: Wellbeing. Preparedness. Placements. Sustainable education.

Pii, 14:30 - 14:55

Breaking silos, building services: Piloting a sustainable AHP educator model in a specialist, tertiary hospital

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Professional Support Services (PSS) brings together six allied health professions where education has traditionally been fragmented and clinician-led, resulting in duplication, inconsistency, and pressure on staff. To address this, a pilot Band 7 AHP Educator role was introduced to centralise and standardise education, reduce workload, and improve learner experience. Early findings show strong educator commitment but a clear need for refresher training and more efficient systems. This poster shares the first three months of the pilot and outlines how the role is evolving into a sustainable education service—freeing clinicians, strengthening learners, and securing the future of our workforce.

Summary:

Background and Significance: Workforce sustainability in healthcare increasingly depends on the quality and consistency of education across professions. Within Professional Support Services (PSS) at a tertiary UK NHS Trust, education responsibilities were historically fragmented across six clinical teams—occupational therapy, physiotherapy, speech and language therapy, dietetics, cardiac rehabilitation, and social work. This led to duplication, inconsistent learner experiences, and pressure on clinicians balancing direct care with ad-hoc teaching. National frameworks such as the AHP Educator Career Framework (Council of Deans of Health, 2023) and NHS England’s Educator Workforce Strategy (NHS England, 2023) advocate for designated educator roles to centralise and standardise education delivery. Internationally, Health Education England’s strategy for ethical and sustainable recruitment of AHPs (Health Education England, 2023) and studies from Australia and Canada (Rodger et al., 2020; Kent et al., 2022) highlight the need for structured educator support to improve placement quality and workforce retention. Additionally, recent research has drawn attention to the risks of underperformance in placements due to inadequate supervision (Smith et al., 2025), and the importance of clearly defined educator skills and qualities (McClimens et al., 2024).

Research Methodology: A service development approach was adopted to evaluate the impact of a newly introduced AHP Educator role over an 18-month pilot. Key performance indicators focused on capacity (mapping learner numbers, education activity, and time commitments; identifying duplication and inefficiencies) and capability (auditing educator skills, confidence, and support needs; implementing targeted interventions such as refresher training and apprenticeship pathways). In the first three months, the educator conducted a survey of 53 practice educators, completed a time audit (educational activities) and scoped digital and simulation resources, worked out fair share model for student placement, collaborated with local AHP council and other AHP forums for liaising placement, apprentice development, return to practice. Findings were shared through team meetings, surveys, and strategic forums.

Key Findings and Insights:

1. 75.5% of respondents reported supervising students, yet 84.9% requested refresher training, indicating strong commitment but uneven support.
2. Administrative tasks dominated education time, detracting from direct teaching.
3. Fragmentation persisted, with each team holding localised resources and processes, leading to duplication and inconsistent learner experience.

4. Early actions included enrolling support workers in accredited supervision training, planning refresher workshops, developing apprenticeship placements, and submitting collaborative simulation funding bids.

Lessons for Healthcare Educators

1. A designated educator role enhances visibility, structure, and efficiency across multi-professionals.
2. Centralisation fosters shared resources and cross-team collaboration, improving learner outcomes and staff wellbeing.
3. Early stakeholder engagement is vital for credibility and adoption.
4. System-level solutions are needed to address administrative burdens and protect clinical teaching time.

Relevance to Healthcare Education Sustainability: This pilot marks a strategic shift from fragmented, clinician-led education to a centralised, sustainable model. By consolidating resources, standardising processes, and embedding educator capability, it directly addresses workforce sustainability, placement capacity, and staff retention. The initiative aligns with national frameworks and international strategies advocating for educator infrastructure to support healthcare delivery. The long-term vision is to evolve the pilot into a substantive education service that strengthens workforce resilience and excellence in patient care.

References:

Council of Deans of Health (2023) Briefing: AHP Educator Career Framework. Available at: <https://www.councilofdeans.org.uk/resource/briefing-ahp-educator-career-framework/> (Accessed: 26 August 2025).

Health Education England (2023) Ethical and Sustainable Recruitment of International AHPs. Available at: <https://www.hee.nhs.uk/sites/default/files/documents/Ethical%20and%20sustainable%20recruitment%20of%20International%20AHPs.pdf> (Accessed: 26 August 2025).

Kent, F., Keating, J.L. and Harwood, A. (2022) 'Educator perspectives on quality in allied health student placements: A qualitative study', *Journal of Allied Health*, 51(1), pp. 45–52.

McClimens, A., et al. (2024) 'Clinical educator skills and qualities in allied health professions: A systematic review', *Journal of Allied Health*, 53(2), pp. 145–159.

NHS England (2023) Educator Workforce Strategy. Available at: <https://www.england.nhs.uk/publication/educator-workforce-strategy/> (Accessed: 26 August 2025).

Rodger, S., Turpin, M., O'Brien, M. and Brown, T. (2020) 'Work-integrated learning in allied health: A systematic review of placement models and outcomes', *International Journal of Work-Integrated Learning*, 21(3), pp. 213–230.

Smith, J., et al. (2025) 'Underperformance and failure in AHP practice placements: A scoping review', *Physiotherapy Research International*, 30(1), pp. 1–15.

Keywords: AHP education. Workforce sustainability. Educator capability. Placement quality. Healthcare innovation.

Piii, 14:30 - 14:55

Finding balance and belonging - The student nurse experience of art-based pedagogy: Diverse insights from a collage enquiry

Helen Marie Bowen, University of Wolverhampton

The purpose of this study is to explore an alternative learner-centred, active approach to learning conducted through the lens of student experience as a potential strategy to address both the theory-practice gap and the high rate of student nurse attrition. The learner-centred, active approach to learning that I have chosen is art-based pedagogy (ABP). To explore the student nurse experience of learning through ABP, I have chosen to conduct my research using art-based research (ABR). I will use a combined theoretical framework to inform my research question, chosen enquiry, analysis, and interpretation of the findings.

Summary:

Background: Art-based pedagogy (ABP) has received much attention in the wider literature as a teaching methodology that can truly incorporate holism within pre-registration nursing education (Reiger et al., 2016). Although ABP is supported in the literature, there is limited research on its ability to reduce the theory-practice gap and student nurse attrition in the UK. Furthermore, it has seldom been discussed how ABP is experienced by individual student populations, including mature, Black, Global Majority, and young people from disadvantaged backgrounds. This is important as nursing has the second highest proportion of applications and acceptances from mature students, Black applicants and young people from disadvantaged backgrounds (UCAS, 2020). In light of this significant lacuna, this study explored the potential of ABP through the experiential lenses of a diverse body of student nurses.

Methodology: Participatory research methods are a diverse set of techniques bound together by a common concern that aim to empower disempowered groups, communities, and individuals (Gallagher, 2008; Kara, 2020). When combined with Art-Based Research (ABR) methods, researchers can develop their own art-based methodologies that engage with participants, as opposed to using social science methods by default (Tlostanova, 2017; Beulé et al., 2021). Unlike conventional research methods such as focus groups, interviews, and questionnaires, participatory art-based methods help to build a more respectful, reciprocal, and relational collaboration with participants which call Euro-Western ways of knowing into question (Kara, 2020; Beulé et al., 2021). This helps to create a non-hierarchical relationship which has the potential to unlock knowledge that is not only deemed as essential to acknowledge different ways of knowing, but also to identify similarities amongst epistemologies (Mäkiranta and Ylitapio-Mäntylä, 2019; Beulé et al., 2021). This was an important factor when conducting this research as it aimed to give a voice to those previously excluded. For this reason, this study was conducted using the participatory ABR approach of Collage Enquiry.

Findings: The findings have shown that ABP is able to create a safe space, helping student nurses to feel more included as an individual. In doing so, student nurses are given the opportunity to experience the benefits of a university club or society; enabling them to make the friendships, connections, and social networks that are known to help improve both retention and academic success. Furthermore, this inclusion empowers student nurses to build a relationship with their lecturer, creating a sense of togetherness. This togetherness removes the 'daunting' feeling that prevents student nurses from participating and asking questions in traditional lectures. Moreover, this enables student nurses to set their own pace when learning, which results in an improvement in their concentration and an increase in their memory. The use of colour in ABP permits the reseeing and reenvisioning of theoretical knowledge which helps student nurses to recall and identify information more easily in

clinical practice. Together, these findings help to further evidence the holistic claims of ABP. Moreover, these findings help to support the use of ABP when working with a diverse body of student nurses.

References:

Beaulé, C. I., Roth, S., Marchand, A., Awashish, K. (2019) 'Developing the Relational Dimensions of Participatory Design Through Creativity-Based Methods', in T. Seppälä, M. Sarantou and S. Miettinen (eds) (2021) *Arts-Based Methods for Decolonising Participatory Research*. London: Routledge, pp. 146-163.

Gallagher, M. (2008) 'Power is not an Evil: Rethinking Power in Participatory Methods', *Children's Geographics*, 6(2), pp. 137-151. Available at: <https://doi.org/10.1080/14733280801963045>

Kara, H. (2020) *Creative Research Methods: A Practical Guide*. 2nd edn. Bristol: Policy Press.

Mäkiranta, M. Ylitapio-Mäntylä, O. (2019), in T. Seppälä, M. Sarantou and S Miettinen (eds) (2021) *Arts-Based Methods for Decolonising Participatory Research*. New York and London: Routledge, p 151.

Rieger, K. L., Chernomas, W. M., McMillan, D. E., Morin, F. L., Demczuk, L. (2016) 'Effectiveness and experience of arts-based pedagogy among undergraduate nursing students: a mixed methods systematic review', *JBIS Database of Systematic Reviews and Implementation Reports*, 14(11), pp. 139-239. Available at: <http://doi.org/10.11124/JBISRIR-2016-003188>

Tlostanova, M. (2017) 'On decolonizing design', *Design Philosophy Papers*, 15(1), pp. 51-61. Available at: <https://doi.org/10.1080/14487136.2017.1301017>

UCAS. (2020) New UCAS insight shows health and social care professions among the most diverse and welcoming – with courses still open for new applications. Available at: <https://www.ucas.com/corporate/news-and-key-documents/news/new-ucas-insight-shows-health-and-social-care-professions-among-most-diverse-and-welcoming-courses>

Keywords: Art-based pedagogy (abp). Theory-practice gap. Student nurse attrition. Art-based research (abr). Collage enquiry.

Piv, 14:30 - 14:55

Relevant and relatable: Gender diversity in lecture content

Richard Ziola, Queens University Belfast

By making teaching material inclusive to the gender - diversity within the classroom, we also make it inclusive of the diversity within the patient cohorts served by the modern laboratory, better preparing students for a career in healthcare, and enriching the student experience along the way from recognition of themselves in the curriculum contents. Diversity can become embedded in our teaching materials by including diversity by those who create the content through collaboration with students and other educators and by diversifying the examples we use to teach, to better represent the student and patient population.

Summary:

Background: Gender-diversity can represent a challenge in the interpretation of diagnostic laboratory results. Incorrect application of reference ranges can lead to patient harm through delayed diagnosis, mis-diagnosis or unnecessary testing (Phiri-Ramongane and Khine, 2021). An understanding of gender-diversity is fundamental for safe future practice as a Biomedical Scientist. It is essential that undergraduate education equips Biomedical Scientists of the future with the knowledge and awareness of gender-diversity and barriers to inclusion. Removing barriers to inclusion is embedded within the Standards of Proficiency which must be met by all registered Biomedical Scientists (HCPC, 2023). Likewise, accredited undergraduate programmes must meet standards which includes the promotion of EDI and challenging stereotypes and bias (IBMS, 2025). It is also important that students during their education they can relate to the curriculum and see themselves in the content, as gender-diversity exists within the student population as well as the patient population (Ahmet, 2020). An opportunity was identified to update existing lecture content on the subject of 'Gonadal Function' and address how gender identify and gender-affirming therapies can affect how biochemical tests are interpreted, and introduce examples from practice, also allowing for non-binary and transgender experiences to be included within healthcare education and allow for others to input into the creation of this lecture content.

Methodology: An advisory group was created. The group comprised of staff and student representation from across the Faculty of Medicine, Health and Life Sciences and a practicing Biomedical Scientists in the field of Clinical Biochemistry. This group also included a student volunteer with an interest in EDI representation within course material (McGahon et al, 2025). A draft lecture was shared with the group and a session was held to discuss the current learning outcome and content created. Feedback was received from our student representation, who gave their insight on how this information could be presented during class. This content was delivered to 86 students Year 3 Biomedical Science students in a 50-minute teaching session. Insights and Lessons for Healthcare Educators Inclusion of gender-diversity within healthcare education has the benefit of preparing healthcare professionals for future practice, including an appreciation of challenges which may arise from male / female binary reference intervals, but also allows students to see themselves within the curriculum which is being taught. In doing so, meeting professional and ethical responsibilities which we have as education providers to promote EDI, including gender-diversity, and challenging stereotypes. By using real-world case examples, we can also demonstrate professional and inclusive communication strategies.

Relevance to healthcare education sustainability: This approach to developing teaching materials within healthcare education not only allows students to relate better to the material by seeing themselves in the curriculum, but also relevant to the development of the healthcare professional they will become. By making material inclusive to the diversity within the classroom, we also make it inclusive of the diversity within the patient cohorts served by the modern laboratory. This process requires modest resources but is high impact to achieve an inclusive learning environments and sense of belonging.

References:

Ahmet, A. (2020) Who is worthy of a place on these walls? Postgraduate students, UK universities, and institutional racism. *Area*. 2020;52:678–686.doi: <https://doi.org/10.1111/area.12627>

Health and Care Professions Council. (2023) Standards of proficiency: Biomedical Scientists.

Institute of Biomedical Science. (2025) Guidance and criteria for the re-accreditation of BSc (Hons) Degrees in Biomedical Science.

McGahon, M., Verhagen, J., Nasr N., Kennedy, D., Atman, A. and Roe, S. (2025) Surprised by cocreation: building equality, diversity, and inclusion in the physiology curriculum with undergraduate students. *Advances in Physiology Education*, 49: 37–40. doi: <https://doi.org/10.1152/advan.00184.2024>

Phiri-Ramongane, B. and Khine, A. (2021) 'Role of clinical laboratories in reporting results of transgender individuals on hormonal therapy', *Journal of Endocrinology, Metabolism and Diabetes of South Africa*, 27(1), pp. 8–13. doi: 10.1080/16089677.2021.1997415

Keywords: Co-creation. Authenticity. Gender diversity. Inclusivity.

Pv, 14:30 - 14:55

Changes to the specialised Foundation Programme recruitment process: Fair or
Dr Ayolola Eni-Olotu, University Hospitals of Liverpool Group and Dr Anna Chiara Corriero, NHS Lothian

In 2024/25, the Specialised Foundation Programme selection process in England changed from focussing on academic achievements of medical students, to random allocation of two-thirds of posts, with one-third of posts available for application through medical schools. This sparked conversations surrounding the recognition and accessibility of undergraduate achievements, and access to extracurricular academic opportunities during and after university. We found that despite this change, the 33% of posts allocated by medical schools were still allocated based on academic achievements. Only two institutions accounted for widening participation factors. This shows the importance of supporting students in accessing postgraduate specialised training opportunities.

Summary:

The Specialised Foundation Programme (SFP) is a variation of the two-year work based foundation programme that is undertaken following completion of a medical degree. This provides emphasis on developing skills in research, medical education or leadership alongside clinical skills. Until the 2024/25 application cycle, the selection process for applicants in England accounted for achievements such as academic prizes earned over the course of the medical degree, publications, and conference presentations. Answers to White Space Questions (WSQs) were also evaluated. These factors were used in a 'points-based' system to determine progress to an interview stage, typically including a simulated clinical scenario, critically appraising an abstract, or discussing career aspirations. For 2024/25, the selection process for the SFP in England changed(1) so that applicants could apply for one third of available SFP places through their medical school, in the region/deanery aligned with their medical school. The remaining two-thirds were entered into the pool of Preference Informed Allocation (PIA) posts, which is the system used to allocate the majority of foundation posts (introduced in 2023/24). This change sparked discourse among both medical students and clinical academics about recognition of achievements obtained during medical school, and how accessible opportunities in research, education and leadership are both during and after medical school. We sought to understand what factors were accounted for in the 2024/2025 application cycle for the SFP in England.

Research methodology: We sent out Freedom of Information (FOI) requests to 30 medical schools in England in November 2024, asking about the number of SFP posts available for

direct application, and components assessed during the application process for 2024/25. Key findings: 19 medical schools disclosed their pre-interview application process. The median number of SFP posts available for application was 7. 15/19 (79%) of medical schools utilised WSQs. 12/19 (63%) utilised academic performance (including prizes), 11/19 (58%) utilised publications, 8/19 (42%) utilised additional degrees and 32% (6/19) utilised conference presentations. 10% (2/19) utilised widening participation factors (described by these universities as 'contextual factors', neurodivergence and learning disabilities). 20 universities disclosed utilising interviews in the application process. 6/20 (30%) included critical appraisal or designing a research question, 5/20 (25%) included discussing future aspirations, and 4/20 (20%) included a clinical scenario.

Lessons for healthcare educators: For the third of SFP posts available via competitive application, academic achievements are still largely taken into account. Knowledge of clinical research processes is also assessed during the interview process, through critical appraisal and research question design. In order to ensure opportunities such as the SFP remain accessible and attainable for students of all backgrounds, medical educators should offer opportunities for medical students to get involved in research and develop the above described skills.

Relevance to healthcare education sustainability: With retention of resident doctors being an increasing issue in the NHS, an increased sense of agency, achievement and confidence when applying for training opportunities may boost morale, success and retention for doctors in training in the UK.

References:

Health Education England (2024). 2025 Specialised foundation programme (SFP) recruitment and allocation. Available at: <https://www.hee.nhs.uk/our-work/foundation-medical-training/2025-specialised-foundation-programme-sfp-recruitment-allocation> (Accessed 1 July 2025).

Keywords: Foundation training. Research. Medical education. Leadership. Accessibility.

Pvi, 14:30 - 14:55

Symptoms of vicarious trauma and burnout in Medical Students related to clinical training experiences

Dr Emma Fernandez, Epsom and St Helier University Hospitals NHS Foundation Trust

It is important that education providers understand the potential emotional and psychological impact that some students experience as a result of observing and participating in the traumatic life events of others. Exploring the causes and effects of vicarious trauma on these students, will allow universities to provide appropriate education and support to build personal resilience, reduce burnout and the loss of these individuals to our future workforce and enable them to enjoy a long and fulfilling career in healthcare.

Summary:

This work aligns with Compassionate Education and Innovation and the Future Workforce, by exploring emotional and psychological distress amongst medical students and the links to symptoms of burnout. There is a growing recognition that healthcare staff can experience secondary or vicarious trauma (VT) and burnout from the experiences they have at work. This is mirrored in students, where those at greatest risk of these symptoms are more likely to enter medicine for altruistic reasons and with the greatest levels of empathy

(De Hert S, 2020). This project aimed to establish whether medical students at Epsom and St Helier University Hospitals NHS Trust, were experiencing symptoms of secondary traumatic stress and burnout and to explore underlying factors and possible improvements that could be made to support students within the University and Hospital environments.

Key findings were:

- 80% (16/20) of students stated 'yes' or 'maybe' to experiencing an emotional or psychological impact from clinical training, greater in 4th year students (final year students had already completed training at time of survey), felt to be due to the increase in number, length and intensity of clinical experiences. None of the students recognised these emotions in others, felt to be related to the culture amongst students, where negative experiences and emotions were more likely to be shared as a joke rather than by expressing distress.
- Half of the students (10/20) exhibited some symptoms of VT, with the majority (6/10) exhibiting severe symptoms. There was a correlation between those experiencing VT and those with signs of burnout.
- They indicated the following as most common causes:
 - Less time available to exercise or engage in enjoyable, relaxing activities
 - Feeling overwhelmed by the amount of learning and/or assessments
 - The apparent 'hardening' of clinicians to distressing experiences and an expectation that students should feel the same
- Students within focus groups raised issues around the available time to participate in activities, such as exercise or hobbies, to allow them to relax and help manage the pressures of study and exams

Other areas of importance raised by students were:

- Increased willingness of clinicians to talk about 'feelings' after difficult events
- Increased training and/or awareness of clinicians of what may be distressing to students
- Improved signposting or access to psychological support

Although small, this survey reflects the prevalence of VT and burnout as documented in current literature (Crumpei I et al, 2012) and gives some insight into areas for improvement and changes that could be considered within Universities. Currently 20% of students consider leaving medical school and this intention to leave will increase to 40% in doctors in training. VT and burnout are linked to lower job satisfaction, increased cynicism, higher mental illness and staff turnover. Given the importance of empathy, and job satisfaction to high quality and effective care, as well as the detrimental effects of long-term sickness and attrition of staff, this is an important issue for healthcare and educational providers to consider.

References:

De Hert S. Burnout in Healthcare Workers: Prevalence, Impact and Preventative Strategies. *Local Reg Anesth.* 2020 Oct 28;13:171-183

Crumpei, Irina & Dafinoiu, Ion. (2012). Secondary Traumatic Stress in Medical Students. *Procedia - Social and Behavioral Sciences.* 46. 1465-1469.

Keywords: Vicarious trauma. Burnout. Students.

Pvii, 14:30 - 14:55

Developing digital capabilities through simulated practice learning

John-Paul Mills, Liverpool John Moores University

In response to the increasing digitisation of healthcare, LJMU has embedded structured digital capabilities training throughout its Simulated Practice Learning curriculum for nursing. Drawing on national frameworks, this training integrates digital literacy with practical competency via simulations involving Electronic Patient Records, virtual wards, remote monitoring and AI-based tools. Students engaged with technologies in authentic scenarios, building both confidence and critical understanding. Early evaluation feedback has highlighted increased socio-technological awareness and greater readiness for placements and professional practice. By combining technological awareness with hands-on application, this approach offers a structured model for developing digital capabilities essential for the nursing workforce.

Summary:

Background: The ongoing digitisation of healthcare necessitates advances in nursing education to ensure graduates are prepared for technology-enabled clinical environments (Vasilica, Withnell, and Navis, 2025). Recognising that emerging technologies are shaping nursing practice and professional identity, the Simulation team at Liverpool John Moores University has embedded digital capabilities across the Simulated Practice Learning curriculum. This was informed by the Topol Review (NHS, 2019), the AI and Digital Health Technologies Framework (NHS England, 2022a) and work by Wynn (2025).

Building on existing digital literacy training underpinned by the Health and Care Digital Capabilities Framework (NHS, 2017), we utilised simulation to further develop nursing students' capabilities in the technologies relevant to their practice. Simulations supported skills development in the following domains: Electronic Patient Records (EPRs), virtual wards, remote monitoring, and AI-based documentation tools. Each session provided students with hands-on experience using key technologies within authentic clinical scenarios, helping to build competence ahead of placements and qualification. Broader themes included e-iatrogenesis (Weiner et al., 2007), health data interpretation, eHealth literacy, assessing eligibility for remote care, and digital exclusion.

Insights: Preliminary evaluation data from these sessions has highlighted several benefits. Following the Year 2 Adult Nursing simulations focused on virtual wards and remote healthcare delivery, for example, students reported an increased understanding of these care models. Many indicated feeling either 'confident' or 'very confident' in tasks such as conducting virtual assessments, educating patients about digital healthcare, and supporting the setup and use of remote monitoring devices. Importantly, the content was widely perceived by students as relevant to their future roles as nurses. Several students noted that it enhanced their understanding of how technology can improve access to care and increase the efficiency of clinical processes. Similarly, a session using EPRs during a simulated shift demonstrated a significant increase in MSc students' confidence in documenting care using EPRs, with many reporting little prior exposure to these systems during placements or professional experience.

Lessons for healthcare educators: The cultivation of digital capabilities combining both socio-cognitive aspects and technical proficiency requires educators to design learning that builds learners up from basic awareness to authentic use in practice (Clarke-Darrington, McDonald and Ali, 2023). By designing simulations affording both hands-on application of specific technologies and exploring the risks and benefits of digitised healthcare, we have developed

a holistic teaching framework that would be of value to other nurse educators looking to embed digital capabilities in their undergraduate and/or postgraduate teaching.

Relevance to healthcare sustainability: Implementation of digital technologies can both support and hinder the development of a sustainable healthcare system (Cripps and Scarborough, 2022). This complexity places a responsibility on educators to prepare nurses both as digitally competent practitioners and as critical users of technology. Through the application of real-world systems, tools, and practices into simulation-based learning, we aimed to improve students' employability and equip them to contribute to a digitally capable workforce, aligning with the goals of the Philips Ives Nursing and Midwifery Review (NHS England, 2022b) and the NHS Long-Term Plan (NHS England, 2019).

References:

Clarke-Darrington, J., McDonald, T. and Ali, P. (2023) 'Digital capability: An essential nursing skill for proficiency in a post-COVID-19 world', *International Nursing Review*, 70(3), pp. 291–296. Available at: <https://doi.org/10.1111/inr.12839> (Accessed: 27 May 2025).

Cripps, H. and Scarborough, D. (2022) 'Sustainable digital healthcare: Balancing opportunity with responsibility', *Journal of Health Management*, 24(1), pp. 30–41. Available at: <https://pubmed.ncbi.nlm.nih.gov/35434699/> (Accessed: 27 May 2025).

NHS (2017) A health and care digital capabilities framework. Available at: <https://www.rcn.org.uk/-/media/Royal-College-Of-Nursing/Documents/Clinical-Topics/A-Health-and-Care-Digital-Capabilities-Framework.pdf> (Accessed: 27 May 2025).

NHS (2019) The Topol Review: Preparing the healthcare workforce to deliver the digital future. Available at: <https://topol.hee.nhs.uk/the-topol-review/> (Accessed: 27 May 2025).

NHS England (2019) The NHS Long Term Plan. Available at: <https://www.longtermplan.nhs.uk/online-version/> (Accessed: 6 June 2025).

NHS England (2022a) Artificial Intelligence (AI) and digital healthcare technologies capability framework. Available at: <https://digital-transformation.hee.nhs.uk/building-a-digital-workforce/dart-ed/horizon-scanning/ai-and-digital-healthcare-technologies> (Accessed: 27 May 2025).

NHS England (2022b) Phillips Ives Nursing and Midwifery Review. Available at: <https://digital-transformation.hee.nhs.uk/building-a-digital-workforce/the-phillips-ives-nursing-and-midwifery-review> (Accessed: 6 June 2025).

Vasilica, C., Withnell, N. and Navis, J.P. (2025) 'The evolving role of nurses in the digital age', in Wynn, M. (ed.) *Digital nursing: Shaping practice and identity in the age of informatics*. Abingdon: Routledge, pp. 27–45.

Weiner, J.P., Kfuri, T., Chan, K. and Fowles, J.B. (2007) "e-Iatrogenesis": The most critical unintended consequence of CPOE and other HIT', *Journal of the American Medical Informatics Association*, 14(3), pp. 387–388. Available at: <https://doi.org/10.1197/jamia.M2338> (Accessed: 27 May 2025).

Wynn, M. (ed.) (2025) *Digital nursing: Shaping practice and identity in the age of informatics*. London: Taylor & Francis.

Keywords: Digital. Technology. AI. Literacy. eHealth.

Pviii, 14:30 - 14:55

Mapping peer virtual patient examination modalities to target neurophobia in Medicine Undergraduates for long-term success

Cisel Boynuegri and Dr Toby Jackman, University of Exeter

Medical students and graduates often experience "Neurophobia", which limits their long-term success. This study aims to implement a peer virtual patient examination teaching modality to improve neurophobia among fourth-year medicine undergraduates.

Summary:

Background: Medical students and graduates often experience "Neurophobia" (Malhotra et al., 2024, Murphy et al., 2024), which limits confidence and perceived knowledge in neurocentric specialities long-term (Moreno-Zambrano et al., 2021). To improve student long-term success, we aligned the fourth-year undergraduate student journey with existing clinical placements, mapping peer virtual patient examination scenarios (Vukanovic-Criley et al., 2008) on virtual patients with neurological findings into a clinical skills teaching session. We performed a prospective, nonrandomised, historically-controlled study to investigate whether this intervention reduced neurophobia.

Research Methodology and key findings: 89 students were divided into two cohorts across successive academic years. Cohort A engaged in whole-group case-based discussion, in groups of 6-9 students facilitated by 1-2 tutors. Students in Cohort B were also supervised by 1-2 tutors per 6-9 students, but were subdivided into breakout groups of 2-3 students. One student from each breakout group performed examinations and discussed clinical reasoning based on the same scenarios, formulated into virtual patient examinations, with another student roleplaying as the patient, and another student as examiner. We surveyed students on impressions of the teaching modalities at multiple levels of the Kirkpatrick model, using Likert-like scales to elicit perceptions of engagement and interactivity, utility for learning neurological knowledge, utility of tutor feedback, and opportunity to practice examination and clinical reasoning. Shapiro-Wilk test was performed to test for equality of variances between cohorts, for each assessed domain. Student's t-Test or Welch's t-Test was performed where variances were equal or unequal, respectively, to compare the two cohorts for each domain. One-way ANOVA was performed to further compare utility for learning between Cohort A, and each role within Cohort B (student, patient, and examiner), with Tukey-Kramer post-hoc analysis performed to identify significantly different modalities. Both cohorts had a combined survey response rate of 26%. All assessed domains were scored significantly higher in Cohort B ($p < 0.05$). There was a significant difference between roles in perceived utility for learning, with the student role in Cohort B scoring significantly more highly than both the case-based discussion roles, and higher than the examiner role in Cohort B.

Relevance to healthcare education sustainability: Peer virtual patient examination in a single simulated clinical skills session improved student confidence in neurocentric speciality knowledge. By mapping student journeys to areas of known weakness in medical graduate confidence and competence, we can ensure graduates' long-term success.

References:

Malhotra, P. S., Bennett, M., Yin, L., Whiting, L., Singh, R. R. & Sindhar, J. 2024. Neurophobia Among Medical Students: Is Virtual Teaching the Answer? *World Neurosurgery*, 182, e29-e33.

Moreno-Zambrano, D., Sandrone, S., Meza-Venegas, J., Jimenez, J., Freire-Bonifacini, A., Santibanez-Vasquez, R. & Garcia-Santibanez, R. 2021. Exploring the key factors behind

neurophobia: A systematic review of the English, Spanish and Portuguese literature. *Brain Disorders*, 2, 100011.

Murphy, S., Carey, E., Dablouk, L., Alomairi, J., Maasarani, J., Ong, J. B. S. Q., Gupta, K., Sharma, R. M., Mccracken, O., Shinyanbola, D., Alrujaib, A., Sheridan, R., Teixeira, L. M., O'byrne, G. P., Rafiq, N., Mazarakis, N. & O'brien, D. 2024. Neurophobia amongst medical students: Hype or reality. *Brain and Spine*, 4, 104134.

Vukanovic-Criley, J. M., Boker, J. R., Criley, S. R., Rajagopalan, S. & Criley, J. M. Using virtual patients to improve cardiac examination competency in medical students. 334-339. 2008

Keywords: Neurophobia. Peer virtual patient examination.

Pix, 14:30 - 14:55

Live streamed clinical experiences: A Kent and Medway Medical School pilot for sustainable Primary Care placements

Dr Cathy Bruce, Dr James Curtis and Dr Catherine Neden, Kent and Medway Medical School

Discover how Live-Streamed Clinical Experiences (LCE) are creating new opportunities in education. This poster reviews the experiences at Kent & Medway Medical School and explores how LCE can support enhanced placement capacity limitations in primary care. Using a logic model method, we consider the implementation of alternative options to face-to-face learning using real patient learning (RPL) remotely. We demonstrate our journey with LCE, enabling teaching at scale, potentially requiring fewer clinical educators, and offering enhanced standardization of learning experiences. Expanding access to RPL through the use of technology-enhanced learning tools can be an opportunity to develop our future professionals.

Summary:

Kent and Medway Medical School was founded specifically to address the workforce shortage in Kent, particularly those in General Practice, and to purposively recruit students from a widening participation background. Positive placement experiences significantly influence students' career choices and are thus crucial in encouraging medical students to remain in primary care locally. There are increasing challenges in providing primary care placements. These include clinical/practice workload and the lack of physical space within GP premises. These space pressures are compounded by the requirements to accommodate supervision and training of other healthcare learners. From a student's perspective, placement experience may be marred by distance and travel between placements. The NHS Long Term Workforce Plan includes a pledge to double the number of medical student places by 2031. In order to address these challenges, a different approach to placement provision is required. Live-streamed clinical experiences (LCE) and other blended learning opportunities are emerging as promising solutions to address these capacity limitations and sustain real patient learning (RPL) remotely. KMMS piloted the use of live-streamed clinical experiences across year one and year two students on placement in primary care. In these years, KMMS students are allocated to a group of practices (within a Primary Care Network) for themed immersion weeks, which are linked to campus-based learning. For the LCE teaching, students are taught from one practice, observing live consultations with patients with conditions linked to the theme of the week. Pilot evaluation data was collected from students using a questionnaire delivered on Qualtrics. This included

aspects of acceptability, satisfaction, and perceived workload. Workload was assessed using the NASA Task Load Index (which considers dimensions of mental demand, physical demand, temporal demand, performance, effort, and frustration). The implementation of LCE was evaluated using a logic model approach. Student perception of LCE was generally positive. Given this acceptability to students, LCE is considered to have the potential to expand access to RPL opportunities both for campus and placement learning (particularly if there is a need to overcome geographical boundaries). Limitations included some technological issues such as connectivity to NHS Wi-Fi, which was troublesome for both educators and students; as a result, mid-way during the pilot, KMMS considered other options, including the students being located on campus for the clinical sessions. Feedback suggested that LCE presented some risk of cognitive overload, and that this was primarily related to the extraneous load from technology setup difficulties. There is no doubt that the opportunity with LCE is to create a sustainable, high-quality pedagogy which can help to address the threats to healthcare students' placement capacity in UK Primary care. Thus, LCE enables opportunities for teaching at scale, potentially reducing the requirement for clinical educators, as well as enhanced standardisation of learning experiences, ensuring all students receive a consistent view of clinical scenarios and RPL. Expansion of placement capacity is crucial for both developing and supporting students' capabilities as future health professionals.

References:

Darnton, R., Amey, S. and Brimicombe, J. (2022). The nature and prevalence of threats to medical student placement capacity in primary care: a survey of East of England GP practices. *BJGP Open*, 6(4), p.BJGPO.2022.0127. doi:<https://doi.org/10.3399/bjgpo.2022.0127>.

Gomez, K., Edwards, H.L. and Kirby, J. (2024). Livestreaming clinical experience to remotely located learners: A critical narrative review. *Medical Education*, 58(9), pp.1032–1041. doi:<https://doi.org/10.1111/medu.15392>.

McGee, R.G., Wark, S., Mwangi, F., Drovandi, A., Alele, F. and Malau-Aduli, B.S. (2024). Digital Learning of Clinical Skills and Its Impact on Medical Students' Academic performance: a Systematic Review. *BMC Medical Education*, [online] 24(1). doi:<https://doi.org/10.1186/s12909-024-06471-2>.

Sassoon, E.C., O'Brien, D.G. and Craig, R.C. (2025). The challenges of expanding medical student numbers in the UK – a scoping review. *Future Healthcare Journal*, [online] 12(3), p.100278. doi:<https://doi.org/10.1016/j.fhj.2025.100278>.

Keywords: Live-streamed clinical placements.

Px, 14:30 - 14:55

Building confidence for tomorrow's workforce: Modern approaches to teaching SBAR handover

Dr Thivakar Sri Kandakumar, Dr Aaleen Aizad and Dr Viruthan Yoga-Nathan, Mid and South Essex Trust

The medical handover is an integral practice of modern healthcare, however, many new doctors reported having no formal handover training. This project was designed to determine which of three modern teaching methods resulted in the greatest engagement and overall improvement of medical students' ability to provide an SBAR handover. It was performed

using a pre and post-training questionnaire assessing student confidence, and an objective assessment of the SBAR provided by qualified doctors. By improving handover skill, this project seeks to support the transition of medical students into professional practitioners.

Summary:

Clinical handover is the foundation of safe and effective patient care, yet communication failures contribute to 60-70% of serious incidents. (Greenberg et al., 2007). The General Medical Council (GMC), the medical regulatory body in the UK, has emphasised effective handover as an essential outcome for medical graduates, citing it as a professional obligation for practising doctors (General Medical Council, 2020). Despite this, a study involving medical students found 83% of participants had no previous formal handover teaching (Holt et al., 2020). Learning during clinical placements is oftentimes observational and may not provide adequate preparation, leaving newly qualified doctors and medical students to report low confidence in communicating concise, accurate and prioritised handover. The SBAR (Situation, Background, Assessment, Recommendation) method was developed by the US Navy to communicate critical information effectively (Curry-Narayan, 2013). This tool has demonstrated improvement in the quality of patient handover, and is recommended by the World Health Organisation (Marshall et al., 2009). Although the SBAR method has now been widely adopted across healthcare settings, its integration in undergraduate training remains variable. Formal opportunities using this tool are not always implemented into medical curriculums. Addressing this pitfall is crucial to ensure adequate transition of competent medical students into professional practice. Medical education has adapted to involve a range of teaching techniques both traditional and modern. Traditional methods, such as lectures, are commonly used to cover a vast quantity of medical knowledge. However, students are less likely to actively learn through this method. This project assesses three different modern teaching methods to create an engaging learning environment to improve the students' ability and confidence in providing handovers. The three methods used for this project include simulations, virtual ward rounds and bleep roulettes. Each technique has its own benefits and limitations. For example, simulation based learning replicates acute scenarios and creates an opportunity for students to learn from their mistakes without real-world consequences. However, it requires expensive equipment and trained individuals to facilitate the sessions (Challa et al., 2021). The different techniques were compared to ascertain which one increased the student's confidence in providing an efficient handover, and which demonstrated the greatest engagement. This QIP involved teaching different cohorts of students to perform an SBAR handover using various teaching methods. The students were given pre and post-session questionnaires for comparison. It assessed their confidence level of the SBAR components and technique. In addition, the students were assessed during each session using a standardised mark scheme by qualified doctors to provide constructive feedback. This quality improvement project aimed to enhance medical student confidence and preparation for the transition to professional practice by introducing structured teaching and practice using the SBAR handover tool. The project also aimed to evaluate the effectiveness of the different teaching methods and determine which was most valuable to students in the development of handover skills. By incorporating modern teaching methods, this project aims to improve students' confidence, communication skills and readiness for clinical practice, ultimately leading to the development of safe, future healthcare providers.

References:

Challa, K.T., Sayed, A. and Acharya, Y. (2021) 'Modern techniques of teaching and learning in medical education: A descriptive literature review', *MedEdPublish*, 10(1). doi:10.15694/mep.2021.000018.1.

Curry-Narayan, Mary. (2013). Using SBAR communications in efforts to prevent patient rehospitalizations. *Home Healthcare Nurse*. 31(31), 504-517. doi: <http://dx.doi.org/10.1097/NHH.0b013e3182a87711>

General Medical Council. (2020) Outcomes for graduates summary. Available at: <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/outcomes-for-graduates/outcomes-for-graduates> (Accessed: 26 August 2025).

Greenberg, C.C. et al. (2007) 'Patterns of communication breakdowns resulting in injury to surgical patients', *Journal of the American College of Surgeons*, 204(4), pp. 533–540. doi:10.1016/j.jamcollsurg.2007.01.010.

Holt, N. et al. (2020) 'Is there a need for formal undergraduate patient handover training and could an educational workshop effectively provide this? A proof-of-concept study in a Scottish Medical School', *BMJ Open*, 10(2). doi:10.1136/bmjopen-2019-034468.

Marshall, S., Harrison, J. and Flanagan, B. (2009) 'The teaching of a structured tool improves the clarity and content of Interprofessional Clinical Communication', *Quality and Safety in Health Care*, 18(2), pp. 137–140. doi:10.1136/qshc.2007.025247.

Keywords: SBAR. Handover. Communication. Education. Innovation.

Pxi, 14:30 - 14:55

The untapped potential of Occupational Therapy for Higher Education Health and Social Care students in a small island community

Lisa Murray, The Guernsey Institute University Centre

This poster explores the untapped potential of Occupational Therapy (OT) in supporting Health and Social Care students within small island Higher Education communities. Students often face unique challenges during their academic journey, from adapting to independent learning to balancing life transitions and professional identity development. Occupational Therapy offers a strengths-based approach, enhancing coping strategies, task management, and overall well-being. By examining current support structures and proposing the integration of Occupational Therapy expertise, this research highlights how tailored interventions can foster student success, retention, and resilience, ultimately strengthening future healthcare provision in small island contexts.

Summary:

Participation in Higher Education (HE) has become a central focus of national and international inclusion agendas over the past decade (Whiteford, 2017). Access to HE is linked to improved social and economic participation, higher earning potential, and increased social status (Yang, 2011). However, students often face significant challenges throughout their undergraduate journey, particularly those in Health and Social Care (HSC) programmes. These students must not only adapt to academic and personal transitions but also develop the resilience and coping strategies required for future professional roles. Within small island communities, where higher education providers are fewer and support services limited, these challenges can be magnified. International literature highlights the link between non-academic support and student success (Morgan, 2012), yet in many small island contexts, support is traditionally restricted to roles such as nursing or library services. This raises the question of whether a broader, more holistic approach could be adopted to improve retention, wellbeing, and professional preparedness. Occupational Therapy (OT),

with its established expertise in health promotion, task adaptation, environmental modification, and fostering occupational balance, offers untapped potential to address these needs (Spencer et al., 2018; Schindler, 2019). This poster draws on a Masters-level research project designed to investigate the experience of HSC students in a small island HE community, mapping existing student support provision, identifying barriers to academic and personal participation, and exploring how OT could enhance outcomes. Through mixed-methods data collection, including student experience surveys, semi-structured interviews, and analysis of current support pathways, the study seeks to capture both the structural and lived dimensions of student transition and wellbeing. Preliminary findings indicated that students often report difficulties with time management, executive functioning, and adapting to new roles while balancing financial pressures and limited access to peer networks. Many rely on ineffective coping strategies, which can negatively affect academic success and quality of life. In contrast, OT-informed interventions—such as anticipatory skill development, activity analysis, and adaptive coping strategies—are positioned to ease these transitions, strengthen resilience, and enhance both academic and professional outcomes (Keptner, 2017; Porath & Rosenblum, 2019). Conference delegates will learn how the principles and practices of OT can be applied innovatively within HE to support student participation and retention. They will also gain insight into the particular challenges faced by small island HE communities, with implications for comparable contexts internationally. The poster will encourage reflection on how support services can move beyond traditional models, adopting a strengths-based, occupation-focused approach to student wellbeing. For the healthcare sector, this research is highly relevant: ensuring the successful education and retention of HSC students is essential for the sustainability of health and social care systems, particularly in small or resource-limited communities. By embedding OT within HE support structures, institutions can better prepare future professionals, reduce attrition, and foster a workforce equipped with the adaptive strategies needed to thrive in complex healthcare environments.

References:

Keptner, K.M. (2017) Long-Term Follow-Up of an Occupation-Based Group Addressing Occupational Performance and Satisfaction in University Freshman. *Occupational Therapy in Mental Health*, [Online] 33(4), pp. 308-325.

Morgan, M. (2012) The evolution of student services in the UK. *Perspectives: Policy and Practice in Higher Education*, [Online], 16(3), pp.77-84.

Porath, M. and Rosenblum, S. (2019) Interaction between time organization and participation dimensions among higher education students. *British Journal of Occupational Therapy*, [Online] 82(5).

Schindler, V. (2019) An Occupational Therapy-based Supported Education Program for University Students with Various DSM-5 Diagnoses: Program Description and Academic Outcomes, *The Open Journal of Occupational Therapy*, [Online]

Spencer, B., Sherman, L., Nielsen, S. and Thormodson, K. (2018) Effectiveness of Occupational Therapy Interventions for Students with Mental Illness Transitioning to Higher Education: A Systematic Review. *Occupational Therapy in Mental Health*, [Online] 34(2), pp.151-164

Whiteford, G. (2017) Participation in higher education as social inclusion: An occupational perspective, *Journal of Occupational Science*, [Online] 24(1), pp. 54-63.

Yang, Y. (2011) A Q factor analysis of college undergraduate students' study behaviours. *Educational Research and Evaluation*, [Online] 20(6), pp.433-453

Keywords: Occupational Therapy. Healthcare education. Neurodiversity. Equality and Inclusion. Student support.

Pxii, 14:30 - 14:55

The role of empathy in fostering compassionate medical practice among First-year Medical Students

Dr Lola Olakunbi, Queen Mary University London

Empathy is essential for effective, compassionate healthcare. It allows doctors and other healthcare professionals to interact well with patients, thus enhancing trust. Reinforcing this principle early on at medical school will ensure tomorrow's doctors establish it as a core skill.

Aims and Objectives:

- To introduce first-year medical students to empathy and its role in clinical practice.
- To develop practical skills for demonstrating empathy in patient interactions.
- To explore common clinical scenarios where empathy is essential for building rapport, managing difficult conversations, and enhancing patient care.

Summary:

Empathy is a fundamental skill for delivering effective and compassionate healthcare. It plays an important role in establishing trust, improving communication, and helping develop stronger relationships between healthcare professionals and their patients. However, recent literature highlights a decline in empathy among medical students as they progress through medical school (Neumann et al., 2011; Hojat et al., 2009). This raises important questions about how empathy is taught and current student performance. To address this, we have incorporated empathy into communication skills teaching in the early years of the medical school curriculum. The session is designed to introduce first-year medical students to the concept and clinical application of empathy. The lecture, with the use of simulated patient consultations and reflective exercises, helped create a safe, experiential learning environment. This approach allows students to explore emotional responses, gain insight into patient perspectives, and practise empathetic communication in a supportive setting (Stepien & Baernstein, 2006).

Key Findings: From delivering this session, we observed that early exposure to empathy focused training significantly enhances student engagement and communication skills. Students felt empathy was a key skill to address early on in medical school. Students enjoyed the scenarios provided to them to reflect on. Students were also asked to practice different scenarios in pairs, giving them the opportunity to give feedback to one another.

Lessons for Delegates:

- Insight into the importance of introducing empathy training early in medical education.
- Practical examples of effective teaching strategies, including the use of simulation and reflective practice.
- Ideas for assessing empathy in clinical skills sessions and fostering long-term development.

Relevance to Healthcare: Teaching empathy from the beginning of medical school helps to safeguard this essential skill, ensuring that future doctors can deliver person-centred,

compassionate care. This session reinforces the importance of empathy as not just a desirable trait, but a teachable and assessable clinical competency that should be prioritised within all healthcare education (Wilkinson et al., 2017).

References:

Neumann, M., Edelhäuser, F., Tauschel, D., Fischer, M. R., Wirtz, M., Woopen, C., ... & Scheffer, C. (2011). Empathy decline and its reasons: A systematic review of studies with medical students and residents. *Academic Medicine*, 86(8), 996–1009.

<https://doi.org/10.1097/ACM.0b013e318221e615> Stepien, K. A., & Baernstein, A. (2006).

Educating for empathy. A review. *Journal of General Internal Medicine*, 21(5), 524–530.
<https://doi.org/10.1111/j.1525-1497.2006.00443.x> Wilkinson, H., Whittington, R., Perry, L., &

Eames, C. (2017). Examining the relationship between burnout and empathy in healthcare professionals: A systematic review. *Burnout Research*, 6, 18–29.
<https://doi.org/10.1016/j.burn.2017.06.003>

Keywords: Empathy. Medical students. Compassionate. Communication skills. Medical education.

Pxiii, 14:30 - 14:55

Retention: Ambition for curriculum change? Exploring the lived experience of mature, female students on a Bachelor of Nursing (Adult) programme: An interpretative phenomenological analysis study

Dr Owena Simpson, Royal College of Nursing

There is currently an international nursing shortage, with increasing demand for healthcare and shrinking resources, there are significant challenges for meeting the healthcare needs of the population (Adhikari and Smith 2023). National and international strategies for addressing the shortage of Registered Nurses have been to increase the number of students enrolled onto pre-registration nursing programmes. This paper sought to explore the lived experiences of mature female students undertaking a Bachelor of Nursing (Adult) programme. It explored the challenges and barriers faced by the students and investigated the factors that support students who have considered leaving but continue with their studies.

Summary:

Learning Outcomes: To develop an understanding of the perceived challenges of undertaking the undergraduate nursing programme as a mature female from a widening participation background. To recognise the factors that support and encourage continuation on the programme. To use the knowledge attained to influence undergraduate curriculum development and student support systems.

This qualitative research study explored the experiences of mature women from a widening participation background undertaking the Bachelor of Nursing (Adult) programme. It utilised Interpretative Phenomenological Analysis (IPA) and a purposive sample of eight participants were recruited into the study and semi-structured interviews were used to gather data. This study identified that mature female nursing students have a myriad of trigger factors that influence and result in them considering leaving the programme. Findings demonstrated

that although all the women were sharing the process of undertaking the programme, they had various backgrounds, career and educational experiences and these influenced their student nurse journey.

The findings identified various and significant course related challenges, the participants had busy lives and were juggling the demands of home and student life.

The study surfaced the power and role that belonging played in the student nurses' experiences across all elements of the programme. Peer support is arguably more important than support from family and friends. Their encouragement had a positive influence and supported the notion of belonging to a group with shared ambitions of becoming RNs. Findings showed that course-related challenges significantly influenced their decisions to stay or go. The academic pressures and clinical placement experiences varied throughout the course, leading to feelings of being unable to continue with their studies.

The findings of this study clearly indicate a need for the structure of the programme to provide greater flexibility and opportunities for a wider range of delivery patterns for the pre-registration nursing programme. The current inflexible course design allows for limited variation or individuality based on student need. A sustainable model of course delivery and opportunity for students to complete course requirements whilst also juggling their home and family lives is needed. A modular system would allow for a curriculum which is more family friendly, where students, for example, with childcare responsibilities, could have more flexibility to take a break from their studies over the school holidays (Christensen and Craft 2021). Although this would provide additional challenges in the organisation and management of the programme, and such changes may be constrained by the University systems and professional body regulations, it is necessary to focus on making the programme as student centred, family friendly and flexible as possible.

It is incumbent upon nurse educators and key stakeholders to work together to strengthen the curriculum in providing more flexibility, recognising the individuality of learners and ensure that support systems are maximised. This will go some way to attracting, developing and retaining future student nurses. This will help address the current recruitment and retention crisis in the nursing workforce.

References:

Adhikari, R. and Smith, P. 2023. Global nursing workforce challenges: Time for a paradigm shift. *Nurse Education in Practice*. 69, pp. 103627–103627

Christensen, M. and Craft, J. 2021. "Gaining a new sense of me": Mature students experiences of under-graduate nursing education. *Nurse Education Today* 96, pp. 104617-104617. doi: 10.1016/j.nedt.2020.104617

Mills, A. et al. 2020. Juggling to find balance: Hearing the voices of undergraduate student nurses. *British Journal of Nursing* 29(15), pp. 897-903. doi: 10.12968/bjon.2020.29.15.897

Keywords: Pre-registration. Nursing. Curriculum. Retention. Belonging.

Pxiv, 14:30 - 14:55

The hospital simulation game: From board to ward

Leanne Neal, University of Central Lancashire

At the University of Lancashire, simulation-based education is a core component of our large pre-registration nursing programme. This poster showcases an innovative, technology enhanced learning strategy using a hospital ward board game to introduce a playful approach to simulation. Grounded in heutagogical principles, the game fosters student autonomy, engagement, and creativity while supporting critical thinking and clinical reasoning. This sustainable, low resource tool supplements traditional simulation and reflects current innovations shaping the future of nursing education in the UK.

Summary:

Summary: At the University of Lancashire, we deliver a large pre-registration nursing programme where simulation-based education is a core component of the curriculum. Up to a maximum of 600 hours of the 2,300 clinical practice hours can be delivered by simulation-based learning (NMC, 2023), transforming the future of nursing education in the UK (Harrison et al, 2024). This poster presents an innovative, technology enhanced learning strategy using a hospital ward board game to incorporate a playful approach within simulation practice for pre-registration nursing education. Playful learning approaches have been shown to boost engagement and belonging, reducing fear of failure whilst also enhancing critical thinking and creativity which are key attributes for future graduates.

Innovation: The development of a hospital ward board game represents a playful and innovative approach by leveraging technology and game-based learning (GBL). Within nursing education, GBL is increasingly used to support and enrich SBL in nursing education (Ozdemir & Dinc, 2022). There is a growing evidence base of the value of playful approaches for enhancing critical thinking (Lameras et al., 2017; Vlachopoulos & Makri, 2017), increasing student engagement (Arnab, 2020; Subhash & Cudney, 2018) and sense of belonging (Herro & Clark, 2016), reducing fear of failure (Koeners & Francis, 2020; Whitton, 2022), and increasing creativity (Tsai, 2012).

This poster illustrates an innovative approach to SBL. The hospital ward board game is designed to reflect the fast-paced and complex nature of acute care environments. The game immerses students in realistic patient scenarios starting with a structured patient handover which progressively evolves using digital media to simulate clinical conditions. This playful design is underpinned by experiential and heutagogical self-determined learning (Hase and Kenyon, 2000), promoting active participation, critical thinking, and collaborative decision-making – key skills essential for future nursing roles.

Student Feedback: Students have consistently reported that sessions were engaging and enjoyable. They particularly liked the realism and authenticity of the game and felt that it prepared them for clinical placement. The most rewarding feedback was the enthusiasm and interest of students wanting to replay the game. There is scope to develop the game further to introduce an increased number of digital media files, and a greater library of scenarios to enable the game to be run multiple times by the same groups.

Lessons for healthcare educators: Healthcare educators are encouraged to take a risk by embracing gamification as a playful and impactful approach to learning. Developing technologies into gameplay allows for creative, student-led experiences that reflect heutagogical principles – placing learners in the driving seat. When expanded into SBL, it offers immersive, scenario driven opportunities that build critical thinking and clinical reasoning.

Relevance to healthcare education sustainability: GBL presents an alternative, sustainable approach to healthcare education by integrating technology-enhanced, student-led strategies. The hospital ward board game exemplifies this by offering immersive, scenario-driven experiences that reflect heutagogical principles and places students in control of their learning. This innovation aligns with current trends shaping the future of healthcare education through flexible, scalable and engaging methods.

References:

Arnab, S. (2020) *Game Science in Hybrid Learning Spaces*. New York. Routledge.

Harrison, N., Edmonds, M., Meads, C., Abdulmohdi, N., Prothero, L. and Shaw, S. (2024) *Simulation in Nursing Education: An Evidence Base for the Future*. Council of Deans of Health. <https://www.councilofdeans.org.uk/2024/01/report-simulation-in-nursing-education-an-evidence-base-for-the-future/>

Hase, S. and Kenyon, C. (2000) 'From andragogy to heutagogy', *Ultibase RMIT*. Available at: <http://pandora.nla.gov.au/nph/wb/20010220130000/http://ultibase.rmit.edu.au/Articles/dec00/hase2.htm>.

Herro, D. and Clark, R. (2016) An academic home for play: Games as unifying influences in higher education. *On the Horizon*, 24(1), pp. 17-28. Koeners, M. P. and Francis, J. (2020) The physiology of play: potential relevance for higher education. *International Journal of Play*, 9(1), pp. 143-159.

Lameras, P., Arnab, S., Dunwell, I., Stewart, C., Clarke, S. and Petridis, P. (2017) Essential features of serious games design in higher education: Linking learning attributes to game mechanics. *British Journal of Educational Technology*, 48(4), pp. 972-994.

Nursing and Midwifery Council (2023). *Standards framework for nursing and midwifery education*. Available at: <https://www.nmc.org.uk/standards-for-education-and-training/standards-framework-for-nursing-and-midwifery-education/>

Ozdemir, E. K. and Dinc, L. (2022) Game-based learning in undergraduate nursing education: A systematic review of mixed-methods studies. *Nurse Education in Practice*, 62.

Subhash, S. and Cudney, E. A. (2018) Gamified learning in higher education. A systematic review of the literature. *Computers in Human Behaviour*, 87, pp. 192-206.

Tsai, K. C. (2012). Play, Imagination and creativity: A brief literature review. *Journal of Education and Learning*, 1(2), pp. 15-120.

Vlachopoulos, D. and Makri, A. (2017) The effect of games and simulations on higher education: A systematic literature review. *International Journal of Educational Technology in Higher Education*, 14(1), pp. 22.

Whitton, N. (2022) *Play and Learning in Adulthood: Reimagining pedagogy and the politics of Education*. Cham: Palgrave Macmillan.

Keywords: Pre-registration nursing students. Simulated Practice Learning (SBL). Game-based learning (GBL).

Pxv, 14:30 - 14:55

Medical Students' perceptions of the use of the Manchester Clinical Reasoning Tool during bedside teaching: An exploratory focus group study

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Rigorous clinical reasoning reduces diagnostic errors and protects patients, yet it's notoriously hard to teach. This study highlights the Manchester Clinical Reasoning Tool (MCRT), a framework that makes reasoning explicit, structured, and teachable. Ten medical students used the MCRT in bedside teaching, then discussed their experiences in focus groups. They praised its ability to boost confidence, sharpen diagnostic thinking, and promote purposeful, reflective learning. The interactive, enquiry-based design proved engaging, with strong potential for broader curriculum integration. With skilled facilitation and strategic placement, the MCRT emerges as a powerful innovation for preparing clinicians to navigate the increasing complexity of healthcare.

Summary:

Introduction: There is a growing consensus amongst educators of the importance of explicitly integrating clinical reasoning teaching into medical school curricula (Graber et al, 2018). Rigorous clinical reasoning has been shown to reduce diagnostic error and therefore prevent patient harm (Evans & Curtis-Holmes, 2005). Despite the literature's recommendations, there are renowned difficulties in teaching clinical reasoning. Reasons for this include that the process often takes place internally and becomes automatic to expert clinicians (Jay, Davenport & Patel, 2024). Furthermore, effectively integrating clinical reasoning teaching into curricula can be challenging (Durning et al, 2024). The Manchester Clinical Reasoning Tool developed by Singh et al. (2021) at The University of Manchester scaffolds the clinical reasoning process. This exploratory focus group study aims to analyse medical students' perceptions of the use of the MCRT during bedside teaching sessions. These perceptions will help educators consider how to teach clinical reasoning and incorporate it longitudinally into curricula.

Methods: Ten medical students from a four-year graduate entry medical school who were on their 5-week placement in a district general hospital volunteered to take part in this study. The MCRT was incorporated into weekly bedside sessions with a Clinical Teaching Fellow (CTF) in groups of three students. On the last week of the placement, these students took part in a sixty-ninety minute, in-person, semi-structured focus group where their perceptions of the MCRT were explored. Two focus groups were held. The transcript from each focus group was analysed using thematic analysis, supported with the use of NVivo 14©.

Results: Five overarching themes were identified from analysing the transcripts: improved clinical reasoning with the MCRT, limitations of the MCRT and its delivery, the importance of the facilitator, integration and alignment with the curriculum and applicability across teaching and assessment methods. The MCRT was praised for its ability to structure the clinical reasoning process and improve confidence in generating differential diagnoses. Despite variations in its use between different CTFs, the tool enforced purposeful information gathering, reflective practice and formative feedback when used with a facilitator. The tool lends itself well to interactive small group teaching settings such as problem-based learning as it utilises enquiry-based learning. Its placement in the curriculum must be carefully considered to avoid cognitive overload and allow for the MCRT to be revisited and built upon at a time with appropriate knowledge. Assessing the implicit reasoning process in a summative setting has recognised challenges but the MCRT was valued for use in formative assessment.

Conclusion: These findings contribute to ongoing conversations around how to support the development of clinical reasoning longitudinally in medical education and suggest that structured tools like the MCRT have an important role when aligned with effective pedagogy and curriculum design. This study solely focused on the student as one of the many stakeholders involved in medical curricula. The perspectives of other stakeholders should be explored to promote faculty development, as well as the perspectives of undergraduate medical schools with traditional curricula. Further research should explore methods of assessing clinical reasoning in formative and summative settings.

References:

Evans, J.S.B.T. and Curtis-Holmes, J. (2005) 'Rapid responding increases belief bias: Evidence for the dual-process theory of reasoning', *Thinking & Reasoning*, 11 (4), pp. 382 – 389.

Graber, M.L., Rencic, J., Rusz, D., Papa, F., Croskerry, P., Zierler, B, Harkless, G., Giuliano, M., Schoenbaum, S., Colford, C., Cahill, M. and Olson, A.P.J. (2018) 'Improving diagnosis by improving education: a policy brief on education in healthcare professions', *Diagnosis (Berl)*, 5 (3), pp. 107 – 118.

Jay, R., Davenport, C. and Patel, R. (2024) 'Clinical reasoning—the essentials for teaching medical students, trainees and non-medical healthcare professionals', *Br J Hosp Med (Lond)*, 85 (7), pp. 1 – 8.

Durning, S.J., Jung, E., Kim, D.H. and Lee, Y.M. (2024) 'Teaching clinical reasoning: principles from the literature to help improve instruction from the classroom to the bedside', *Korean J Med Educ*, 36 (2), pp. 145 – 155.

Singh, M., Collins, L., Farrington, R., Jones, M., Thampy, H., Watson, P., Warner, C., Wilson, K. and Grundy, J. (2021) 'From principles to practice: embedding clinical reasoning as a longitudinal curriculum theme in a medical school programme', *Diagnosis*, 9 (2), pp. 184 – 194.

Keywords: Clinical reasoning. Clinical reasoning tool. Medical students. Medical education. Curriculum design.

Pxvi, 14:30 - 14:55

Medical Students' perception of reflective exercises post-communication skills sessions

Dr Aleena Thomas and Dr Lucy Roberts, NHS Tayside

This case study aims to evaluate medical students' perceptions of written reflective exercises post-communication skills sessions. Using semi-structured interviews and thematic analysis, four main themes were identified: opinions about communication skills sessions, the importance of feedback, students' perceptions of the role of the reflective activity and ways to improve this exercise. The findings highlight the challenges with transitioning between COVID-era education and post-COVID education. Keeping students engaged proves to be a challenging aspect of medical education. Additionally, students valued the content and usability of feedback above all else as opposed to the "niceness" of the comment itself.

Summary:

Background: Undergraduate medical students in Year 1-3 at Dundee University are required to engage in clinical communication skills training as part of the curriculum. However, there has been concern about student absenteeism, particularly during consulting days, with many students failing to make up missed sessions. To improve engagement, students are now asked to complete a 50-word reflection following their simulated consultation. The General Medical Council (2017) emphasises the importance of reflective practice, encouraging medical students and doctors to learn from experiences. Active involvement in the learning process, as advocated by the principles of experiential learning, can create a more stimulating educational environment (Taylor and Hamdy, 2013). Reflecting critically on simulated consultations allows students to improve their clinical practice (Janssen et al., 2024). However, requirements for mandatory reflection may undermine its quality, resulting in less meaningful introspection (Dressler et al., 2018).

Methodology: This case study explores the perceptions of medical students regarding the new reflective task, examining its role in developing communication skills and identifying potential improvements. The study employed purposive sampling to select participants from a cohort of 444 students, with recruitment facilitated through a mass email sent by an external gatekeeper (Palys, 2008). Eleven one-to-one semi-structured interviews were conducted with Year 2 and 3 students. Data was analysed using Braun and Clarke's (2022) thematic analysis.

Key Findings: Students described their communication skills experience positively, emphasising the supportive environment. The majority of students raised concerns regarding attendance with inequity in the number of consultations students partake in. Students highlight the pivotal role feedback plays and how this shaped their experiences. They felt tutors were supportive. However, many felt the feedback they received lacked constructive criticism, with tutors hesitant to offer negative comments. The reflective exercise itself was viewed by many students not as a tool for personal introspection, but rather as a mechanism to ensure attendance. Suggestions for improvement included the introduction of prompt questions to guide reflection, increasing the word limit beyond 50 words, and offering greater freedom in selecting the consultations for reflection.

Lessons for Educators: Creating a welcoming and trustworthy learning environment is vital for fostering student engagement (Davies et al., 2012). Students valued the content and usability of feedback as opposed to the "niceness" of the comment itself (Playfoot et al., 2025). Facilitator teaching sessions on giving feedback may be beneficial. Although reflection is a key component of continuous professional development, the prescribed nature of this task may limit its authenticity. Many students indicated that they preferred reflecting during the session, as opposed to after. Removing word limits may encourage more genuine reflections (Dressler et al., 2018).

Relevance to Sustainability: Student attendance in medical education is an ongoing challenge in the post-COVID era. Understanding factors that influence attendance and identifying ways to overcome barriers is critical to fostering a sustainable learning environment. Further evaluation of the learning environment and teacher-student dynamics is necessary to drive improvements. Tools such as the Dundee Ready Education Environment Measure could help assess these areas systematically (Miles et al., 2012).

References:

Braun, V. & Clarke, V. (2022). *Thematic analysis: a practical guide*, Thousand Oak, California: SAGE Publications.

Davies, R., Yeung, E., Mori, B. & Nixon, S. A. (2012). 'Virtually present: The perceived impact of remote facilitation on small group learning'. *Medical teacher*, Vol. 34, No. 10, p e676-e683.

Dressler, J. A., Ryder, B. A., Connolly, M., Blais, M. D., Miner, T. J. & Harrington, D. T. (2018). "'Tweet"-Format Writing Is an Effective Tool for Medical Student Reflection', *Journal of surgical education*, 75, 1206-1210 [Online]. 10.1016/j.jsurg.2018.03.002 [Accessed].

General Medical Council (2017). General professional capabilities framework [Online]. Available: https://www.gmc-uk.org/-/media/documents/generic-professional-capabilities-framework--2109_pdf-70417127.pdf [Accessed: 28 February 2025].

Janssen, L., Schick, K., Neurohr, T., Pittroff, S. I. D., Reiser, S., Bauer, J., Berberat, P. O. & Gartmeier, M. (2024). 'Reflect to interact - fostering medical students' communication through reflection-focused e-learning'. *BMC medical education*, Vol. 24, No. 1, p 541-541.

Miles, S., Swift, L. & Leinster, S. J. (2012). 'The Dundee Ready Education Environment Measure (DREEM): A review of its adoption and use', *Medical teacher*, vol. 34, no. 9, e620-e634 [Online]. doi: 10.3109/0142159X.2012.668625 [Accessed: 16 December 2021].

Palys, T. (2008). Purposive sampling. In: Given, L. M. (ed.) *The SAGE encyclopedia of qualitative research methods*. Los Angeles: SAGE Publications, 697-698

Playfoot, D., Horry, R. & Pink, A. E. (2025). 'What's the use of being nice? Characteristics of feedback comments that students intend to use in improving their work'. *Assessment and evaluation in higher education*, Vol. 50, No. 2, p 187-198.

Taylor, D. C. M. & Hamdy, H. (2013). 'Adult learning theories: Implications for learning and teaching in medical education: AMEE Guide No. 83', *Medical teacher*, vol. 35, e1561-e1572 [Online]. doi: 10.3109/0142159X.2013.828153 [Accessed: 16 December 2021].

Keywords: Compassionate education. Reflective practice. Inclusive learning environments. Communication skills. Simulated learning.

Pxvii, 14:30 - 14:55

Prepared for practice: A quality improvement teaching series on acute presentations for final-year Medical Students

Dr Vivekkar Sri Kandakumar, Dr Jatinder Singh Stanley, Dr Mahi Manoharan, Dr Deelan Vadher, Dr Bethany Sinclair and Dr Aran Patel, Mid and South Essex Trust

Final-year medical students often feel underprepared to manage acutely unwell patients, a challenge with direct implications for patient safety. At Broomfield Hospital, Clinical Teaching Fellows developed the Acute Presentations Series, a new teaching programme mapped to the GMC's Medical Licensing Assessment. Covering both medical (e.g. shortness of breath, electrolyte imbalance, headache) and surgical (e.g. acute limb ischaemia, acute abdomen, haemorrhage) presentations, the series uses lectures, case-based discussions and A-E roleplay to enhance student preparedness. This quality improvement initiative offers a scalable, resource-efficient approach to strengthening acute care education and supporting graduates as they transition into foundation practice.

Summary:

Background and significance: The management of acute presentations is one of the most important competencies for newly graduated foundation doctors, directly influencing patient safety and clinical outcomes. National training survey reports highlight variation in competence and confidence when dealing with acutely unwell patients, reflecting inconsistencies in undergraduate training across medical schools and hospitals (Illing et al., 2013; Monrouxe et al., 2014). For many students, assuming responsibility for acute care is a major source of anxiety during the transition to foundation practice (Goldacre et al., 2010). With the introduction of the General Medical Council's Medical Licensing Assessment (MLA), acute care has become an explicit national standard that all graduates must achieve (GMC, 2023; Khogali, 2023). Simulation-based teaching has been shown to improve confidence, reasoning and decision-making, particularly when delivered through structured approaches such as the Airway–Breathing–Circulation–Disability–Exposure (A–E) assessment and facilitated reflection (Issenberg et al., 2005; Cook et al., 2011). Building on Kolb's experiential learning theory (1984), Kirkpatrick's four-level evaluation model (2006) and Vygotsky's zone of proximal development, this Quality Improvement Project (QIP) sought to address identified gaps in the delivery of acute care teaching and to provide students with structured, MLA-aligned preparation for practice.

Methodology: The QIP began by mapping the teaching delivered by Clinical Teaching Fellows (CTFs) at Broomfield Hospital to the MLA content map for final-year students from Anglia Ruskin University and Queen Mary University London. This process revealed that only a limited range of acute presentations were consistently covered in previous cohorts. To address this, the Acute Presentations Series was developed to provide comprehensive coverage of key medical presentations (e.g. shortness of breath, electrolyte imbalance, headache) and surgical emergencies (e.g. acute limb ischaemia, acute abdomen, haemorrhage). The series was delivered through a multimodal format: lectures provided structured knowledge, interactive case discussions supported diagnostic reasoning, and A–E roleplay scenarios enabled students to practise systematic assessment of deteriorating patients. The primary outcome of the QIP was the introduction of structured, comprehensive teaching of acute presentations aligned to the UK MLA. Secondary outcomes included quantitative evaluation of student confidence, measured by pre- and post-series Likert questionnaires, and clinical knowledge, assessed using UK MLA-mapped multiple-choice questions. Data collection is ongoing across several cohorts to examine both immediate and longer-term impact.

Lessons for healthcare educators: This project highlights the value of mapping existing teaching against national standards to identify and address curriculum gaps. By explicitly aligning with the UK MLA and integrating multimodal pedagogy, the series promotes consistency in acute care education. The project demonstrates how continuous evaluation and quality improvement methods can ensure undergraduate teaching remains relevant, responsive and reproducible.

Relevance to healthcare education sustainability: The Acute Presentations Series represents a scalable and resource-efficient intervention that can be adopted across institutions. By improving preparedness for practice, building workforce resilience and embedding iterative quality improvement, the programme contributes to the long-term sustainability of undergraduate healthcare education and supports the delivery of safe, effective acute patient care.

References:

Cook, D.A., Hatala, R., Brydges, R., Zendejas, B., Szostek, J.H., Wang, A.T., Erwin, P.J.

and Hamstra, S.J. (2011) 'Technology-enhanced simulation for health professions education: a systematic review and meta-analysis', *JAMA*, 306(9), pp. 978–988.

Deans, Z., Moorlock, G. and Trimble, M. (2024) 'The medical licensing assessment will fall short of determining whether a UK medical graduate behaves ethically', *British Journal of Hospital Medicine*. Available at: <https://wrap.warwick.ac.uk/id/eprint/182900/>. General Medical Council (2020) *The state of medical education and practice in the UK*. London: GMC.

General Medical Council (2023) *Medical Licensing Assessment content map*. London: GMC. Available at: <https://www.gmc-uk.org/education/medical-licensing-assessment>.

Goldacre, M.J., Lambert, T.W., Evans, J. and Turner, G. (2010) 'Preregistration house officers' views on whether their experience at medical school prepared them well for their jobs: national questionnaire survey', *BMJ*, 320(7247), pp. 702–706.

Illing, J., Morrow, G., Kergon, C., Burford, B., Spencer, J., Peile, E., Baldauf, B., Davies, C., Allen, M. and Johnson, N. (2013) *How prepared are medical graduates to begin practice?* London: GMC.

Issenberg, S.B., McGaghie, W.C., Petrusa, E.R., Lee Gordon, D. and Scalese, R.J. (2005) 'Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review', *Medical Teacher*, 27(1), pp. 10–28.

Khogali, S.E. (2023) 'UK medical school staff perspectives on the Medical Licensing Assessment: A qualitative study', *MedEdPublish*, 13(289). Available at: <https://mededpublish.org/articles/13-289>.

Kolb, D.A. (1984) *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall.

Kirkpatrick, D.L. and Kirkpatrick, J.D. (2006) *Evaluating Training Programs: The Four Levels*. 3rd edn. San Francisco: Berrett-Koehler.

Monrouxe, L.V., Bullock, A., Cole, J., Gormley, G., Kaufhold, K., Kelly, N., Roberts, C. and Mattick, K. (2014) *How prepared are UK medical graduates for practice?* Cardiff: Cardiff University.

Keywords: Quality Improvement. Acute care education. UK Medical Licensing Assessment. Simulation. Preparedness for practice.

Pxviii, 14:30 - 14:55

Increasing research capacity and capability within the Pharmacy profession

Professor Diane Ashiru-Oredope, Dr Helen Chang and Lauren Ross, Royal Pharmaceutical Society

The Royal Pharmaceutical Society's (RPS) educational resources are designed to be accessible and inclusive in approach to support diverse learning styles and preferences. The organisational research pedagogy has evolved over time, with notable expansions to research resources, and educational event frequency. These concerted efforts have been made to improve pharmacists' research capacity and capability as credentialling assessment

data showed that domain 5 (research) had the lowest pass rate since inception (67%). This abstract summarises the varied resources that are available to those across all career stages and the outputs of existing evaluations which have measured the resources' impact.

Summary:

Introduction: Increasing research capacity and capability in pharmacy is at the heart of the Royal Pharmaceutical Society (RPS) Science & Research Team's (SRT) mission. There are significant barriers to pursuing research while working in clinical practice. The RPS' pedagogy for pharmacy practice research including research resources and educational events has evolved over time. Concerted efforts have been made to focus on research education, as credentialling assessment data showed that domain 5 (research) had the lowest pass rate since inception (67%)¹.

This abstract summarises available RPS resources designed to expand professionals' research capacity and capability and the outputs of existing evaluations which have measured their impact.

Methodology: A structured review was conducted in June 2025 to synthesise available RPS research education resources, such as training modules and guidance documents. Available data on the impact of educational resources were collated from internal evaluations and analysed. Member research support requests from January 2024 to June 2025 were analysed to understand support needs.

Results: The primary research support resource available is the Research and Evaluation Guide, covering the full research cycle, from question identification to evaluation. The RPS website also host a Research Funding Opportunities hub, which provides an overview of available research funding sources². This resource is open-access and has had over 1,200 users since its publication in February 2024.

Two national webinars organised by the RPS in 2024/25 included "Demystifying Research Funding" and "Routes to Research: How to get started". Both session recordings and Q&A summaries are available on the RPS website.

To improve the reach of available resources and demonstrate knowledge dissemination, the SRT presented 10 abstracts at regional, national, and international conferences in 2024. The RPS Annual conference, which includes research abstract presentations to support research development, had 171 submissions and 212 submissions in 2024 and 2025 respectively. The RPS SRT collaborated with National Institute for Health and Care Research (NIHR) to develop a healthcare research eLearning course⁴. As of June 2025, this course has 1522 enrolled users, rising from the 835 users recorded in the June 2024 service evaluation. This evaluation also revealed that the number of users who rated their research confidence as "confident" or "strongly confident" rose from 29% before vs 60% after completing the modules.

From 32 member support requests analysed, 31% were for general research support (e.g., methodology design or developing a research question), and 28% were for PhD application support. Feedback from users has been positive, sharing that they felt their knowledge and/or confidence had improved.

Conclusion: The RPS' research pedagogy showed expansion of resources to increase professionals' capacity and capability. The resources available are varied and can be used by those at all career stages. All RPS resources are designed to be accessible and inclusive

in approach to support diverse learning styles and preferences. Existing evaluations have found that RPS resources have had a positive impact on research confidence and capability. The RPS SRT will continue to evaluate their research educational resources and ensure that the profession's needs are being met.

References:

RPS Annual Credentialing Report.

<https://www.rpharms.com/development/credentialing/annual-credentialing-report>.

Research Funding Opportunities. <https://www.rpharms.com/resources/pharmacy-guides/research-and-evaluation-guide/research-funding/research-funding-opportunities>.

RPS Science & Research Representation at the 2025 Clinical Pharmacy Congress.

<https://www.rpharms.com/recognition/all-our-campaigns/science-research/clinical-pharmacy-congress-2025>.

NIHR e-learning. <https://www.rpharms.com/development/research-and-evaluation/nihr-e-learning>.

Research Guidance & Support | RPS. <https://www.rpharms.com/development/research-and-evaluation/research-guidance-and-support>.

Keywords: Research capacity. Pharmacist. Pharmacy. E-learning. Credentialing.

Pxix, 14:30 - 14:55

Developing the digital capability of future Pharmacists

Dr Esnath Magola-Makina, Dr Jennifer Silverthorne and Harsha Parmar, The University of Manchester

Digital capability is an essential requirement for future healthcare professionals as the NHS aims to maximise efficiency and enhance safety. A pharmacy undergraduate digital skills strategy was implemented, embedding self-evaluation and elearning (e.g. digital health technologies e-courses) in all years, evidenced by eportfolio. Utilising the JISC discovery self-assessment tool, student strengths in digital proficiency and productivity plus identity and wellbeing were identified, but development needs in digital creation, problem-solving and innovation existed at both baseline and graduation. Continuous review and targeted staff training are planned. Strengthening staff proficiency will further support the development of digitally competent healthcare professionals.

Summary:

Background: Digital capability is an essential professional development requirement for future healthcare professionals. Increasing adoption of digital technologies by the NHS aims to maximise efficiency, improve the patient experience and enhance safety.

The pharmacy regulator, the General Pharmaceutical Council (GPhC), has recognised the importance of assuring the digital competence of future pharmacists. GPhC standards for the initial education and training of pharmacists (GPhC, 2021) mandate that education providers ensure students “Keep abreast of new technologies and use data and digital technologies to improve clinical outcomes and patient safety, keeping to information governance principles” (GPhC learning outcome 24). At The University of Manchester, a pharmacy digital skills strategy was implemented drawing upon Health Education England

(HEE) and JISC resources (HEE, 2018; HEE, 2021; JISC 2017). Using JISC's six domains (JISC, 2024) and HEE's (2018) four levels of competence (L1-4), student achievement was mapped to achieve L2 in the early years, progressing to L3 "foundation pharmacist" level by graduation.

Key findings: Digital capability exercises were embedded in all years by June 2025. Year 1 students (n=159) completed the JISC discovery self-assessment tool to identify their strengths and development areas. The developmental activities they chose to undertake were distributed across the six digital domains: communication, collaboration and participation (24.5%), learning and development (21%), information, data and media literacies (16.5%), creation, problem-solving and innovation (16%) proficiency and productivity (15.5%) digital identity and wellbeing (6.5%).

Students continued to undertake guided self-directed e-learning each year of the MPharm, including the Open University's social media in health and social care course (Year 2) and digital health technologies e-courses (Years 3 and 4). Evidence of completion was uploaded to an eportfolio for annual evaluation.

Of the 152 graduating students in 2025, 73 completed a baseline, and 93 a final year evaluation of their digital capabilities. Analysis revealed the digital proficiency and productivity domain was a strength for the largest number of students (37%) at baseline, whilst in the final year it was the digital identity and wellbeing domain (38%). At both baseline and graduation, students' greatest development needs were in digital creation, problem-solving and innovation, however this was also where students reported having developed most.

Lessons for healthcare educators: The Manchester MPharm was accredited by the GPhC, with learning outcome 24 deemed to have been met. Continuous review of the digital skills strategy will ensure updates are implemented to reflect those development needs identified within student cohorts or the wider NHS.

In an NHS review of digital health education delivery by clinical educators (HEE, 2023), pharmacy staff reported feeling less supported than other healthcare professions in developing digital capability. This highlights that pharmacy educators need improved resources and infrastructure to better support the development of future pharmacists.

In their ongoing training, the MPharm team will complete the JISC digital capabilities discovery tool and participate in hands-on training workshops aligned with digital proficiency gaps. Strengthening the confidence and proficiency of staff can further support the development of digitally proficient healthcare professionals.

References:

General Pharmaceutical Council (2021) Standards for the Initial Education and Training of Pharmacists. Available at: <https://assets.pharmacyregulation.org/files/2024-01/Standards%20for%20the%20initial%20education%20and%20training%20of%20pharmacists%20January%202021%20final%20v1.4.pdf> (Accessed 03 June 2025)

Health Education England (2023) The current status of digital technology and skills in health and care education. Available at: <https://digital-transformation.hee.nhs.uk/building-a-digital-workforce/current-status-of-digital-technology-in-health-and-care-education> (Accessed 03 June 2025)

Health Education England (2021) Digital Capabilities for the Pharmacy Workforce. Available at: <https://www.hee.nhs.uk/sites/default/files/Supporting%20Digital%20Literacy%20in%20the%20Pharmacy%20Workforce%20-%20June%202021.pdf> (Accessed 03 June 2025)

Health Education England (2018) Health and Care Digital Capability Framework. Available at: <https://digital-transformation.hee.nhs.uk/binaries/content/assets/digital-transformation/nhs-digital-academy/digital-literacy-capability-framework-2018.pdf> (Accessed 03 June 2025)

JISC (2024) Building digital capabilities framework: the six elements defined. Available at: Building digital capabilities framework - the six elements (Accessed 03 June 2025)

JISC (2017) Discovery Tool. Available at: <https://digitalcapability.jisc.ac.uk/our-service/discovery-tool/> (Accessed 03 June 2025)

Keywords: Pharmacy education. Digital skills.

Pxx, 14:30 - 14:55

How do we teach Doctors? Innovation in a Postgraduate teaching programme

Dr Ehinomen Imoisili and Dr Kelvin Miu, Great Ormond Street Hospital

This project from Great Ormond Street Hospital showcases an innovative, inclusive approach to postgraduate medical education. Faced with poor attendance and engagement, the team redesigned the teaching programme using hybrid delivery, reduced session length, and principles of self-determination theory. A resident-led teaching faculty was established, and social media was used to boost engagement. Over seven months, attendance rose by 80%, and all sessions were rated as good or excellent. This model demonstrates how targeted, learner-centred strategies can enhance cross-speciality engagement, support struggling trainees, and contribute to sustainable healthcare education.

Summary:

Background: Great Ormond Street Hospital (GOSH) is a quaternary children's hospital in London, providing services to children from all over the UK. It has Postgraduate Medical Education Fellows who organise weekly teaching for all doctors in the hospital. The goal is to support their professional development through high-quality educational sessions. There is senior teaching (targeted at higher specialty doctors), core teaching (for junior grade doctors). Others are case rounds, bedside teaching, and simulation. There were several challenges facing the teaching programme, including poor attendance and poor engagement from multiple specialities. A survey done among the doctors pinpointed some causes like workload and timings of the teaching. Some studies suggest that about 1 in 10 resident doctors struggle to attain the educational requirements of their training programme: a situation likely to impact patient safety (Christensen et al, 2016). Another literature showed that when resident doctors were in difficulty, the easiest area of remediation was in addressing medical knowledge gap, while addressing issues of professionalism was the hardest (Gronowski et al, 2016). A diverse teaching programme such as ours provides an innovative approach allowing targeted support for both knowledge-based and professionalism-related issues.

Methods: To address the challenges faced by our resident doctors, some interventions were introduced to make our teaching activities more inclusive, and progress was measured from

October 2024 to May 2025 using attendance and feedback from sessions. The interventions effected are below.

- The teaching time was reduced to an hour; bleeps were held for the doctors while in teaching.
- Teaching was kept hybrid- eliminating need to travel in for teaching.
- The programme was linked with our doctors' needs for autonomy, competence, and relatedness, using a survey on our doctors' learning objectives, engaging with them on social media, and issuing attendance certificates.

Key Findings:

- Attendance at teaching programmes up by 80% with cross-specialty engagement.
- More than 70% of attendees at our teaching events join using online platforms- this has reduced the need to travel in and improved the reach and flexibility for engagement with our programmes.
- Widening participation of trainees/residents as teachers: including the creation of a resident doctors teaching faculty with active participation.
- All teaching sessions in the period under review were rated as good or excellent, with 100% of attendees stating that the session attended would likely influence their clinical practice or career.

Lessons for Healthcare Educators:

- The concept of relatedness (self-determination theory) is important in designing an inclusive multispecialty teaching program.
- Innovative strategies such as use of social media to engage.
- Technology can be used to provide an environmentally sustainable way to deliver education.
- Learning rewards such as certificates are useful incentives.

Relevance to healthcare education sustainability: Adapting educational programmes to address the changing needs of healthcare staff and the patients they care for using innovation as described in our work, including attention to the environment, is crucial to achieving sustainability in healthcare education.

References:

Christensen, M.K., O'Neill, L., Hansen, D.H., Norberg, K., Mortensen, L.S. and Charles, P. (2016). Residents in difficulty: a mixed methods study on the prevalence, characteristics, and sociocultural challenges from the perspective of residency program directors. *BMC Medical Education*, 16(1). doi:<https://doi.org/10.1186/s12909-016-0596-2>.

Gronowski, A.M., McGill, M.R. and Domen, R.E. (2016). Professionalism in Residency Training. *Academic Pathology*, 3, p.2374289516667509. doi:<https://doi.org/10.1177/2374289516667509>.

Keywords: Postgraduate medical education. Engagement. Inclusive teaching. Innovation. Self-determination theory.

Pxxi, 14:30 - 14:55

Innovating undergraduate Radiology: From lecture to practice. A future-focused chest x-ray workshop showcasing a progressive, real-world simulation model for teaching Radiology to Medical Students

Dr Lola Olakunbi, Queen Mary University London

This interactive, group-based chest X-ray workshop offers a novel model for delivering undergraduate radiology teaching, integrating imaging interpretation with real-time clinical reasoning and decision-making. Simulating how imaging guides patient management, the session moves beyond traditional didactic methods, addressing a longstanding gap in medical curricula. Centred on active participation and peer collaboration, it supports students to build competence and confidence in applying radiology in clinical contexts. This innovative format represents a future-forward approach to embedding radiology into undergraduate education, aligning with NHS workforce needs and helping students develop diagnostic thinking alongside clinical reasoning encountered in their clinical training.

Summary:

Undergraduate radiology education remains inconsistently delivered across UK medical curricula, often isolated from clinical reasoning and delivered didactically, despite imaging underpinning over 90% of hospital admissions (1). This session presents a novel, simulation-based, interactive group workshop for teaching chest X-ray interpretation, designed and delivered by a Clinical Radiologist at a London medical school. The format closely mirrors real-world practice and explicitly integrates radiological analysis with clinical reasoning and patient management planning. Recent educational literature supports the shift from passive didactic methods to interactive, constructivist, and socially situated learning environments (2–5). Radiology education has lagged in adopting these models, with traditional formats failing to support clinical application (6–8). Responding to this gap, this session leverages theories from Vygotsky (social constructivism), Bruner (spiral curriculum), and Kolb (experiential learning) to scaffold students' learning in a way that reflects the realities of interdisciplinary clinical care (9–11). This novel format also aligns with national recommendations to better integrate radiology earlier into undergraduate curricula (12,13). The session simulates real-world team-based clinical decision making. Small student groups are guided through clinical scenarios requiring chest X-ray interpretation using structured tools (RIPE, ABCDE, SBAR). They use findings to form differential diagnoses and propose management plans collaboratively. This mirrors how junior doctors interact with radiologists in practice, enhancing relevance and transferability (14–16). The format builds diagnostic confidence, encourages early engagement with radiology, and places imaging in its appropriate clinical context, countering the siloed nature of radiology teaching identified in previous studies (17–19). Feedback from over 120 participants across the current year 3 cohort (2024/2025) has been overwhelmingly positive. Students report increased confidence in X-ray interpretation, improved clinical reasoning skills, and greater appreciation of radiology's clinical utility. This aligns with findings from studies on simulation based and team-based learning in health professions education, which report improved retention, engagement, and satisfaction (20–24). The workshop format reflects pedagogical best practices including flipped learning (25), active learning (26), and the use of structured peer collaboration (27). Content is underpinned by evidence-based curriculum design principles, including cognitive load theory (28), alignment of learning outcomes and assessment (29), and inclusion of formative feedback mechanisms (30). Conference delegates will gain insight into a practical and scalable innovation for undergraduate radiology education. They will explore how simulation, group based learning, and clinical context can be leveraged to embed radiology more effectively within the core curriculum, ensuring it supports, not exists apart from, clinical reasoning development. This work is timely given the GMC's emphasis on diagnostic acumen and interdisciplinary collaboration in the new Outcomes for Graduates

framework. Finally, the session contributes to a growing international discourse on the reform of imaging education in undergraduate medicine. Its practical design can be adapted by educators in other disciplines facing similar integration challenges, offering a transferable model for curricular innovation in resource constrained and clinically complex teaching environments.

References:

1. Brady A, Laoide RÓ, McCarthy P, McDermott R. Discrepancy and Error in Radiology: Concepts, Causes and Consequences. *Ulster Med J*. 2012;81(1):3–9.
2. Bruner JS. *The Process of Education*. Cambridge, MA: Harvard University Press; 1960.
3. Vygotsky LS. *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press; 1978.
4. Kolb DA. *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall; 1984.
5. Biggs J, Tang C. *Teaching for Quality Learning at University*. 4th ed. Maidenhead: Open University Press; 2011.
6. Nyhsen CM, Steinberg LJ, O'Connell JE. Undergraduate radiology education: a review. *Int J Radiol Imaging Technol*. 2014;1(1):7–13.
7. Poot JD, Hartman MS, Blatherwick L, Deitte LA. Flipping the classroom in medical student education: Does this lead to improved performance and satisfaction? *J Am Coll Radiol*. 2017;14(2):253–259.
8. Chew C, O'Dwyer PJ. Undergraduate radiology education: An evaluation of course design and student perceptions. *Clin Radiol*. 2020;75(10):798.e17–798.e23.
9. Harden RM. AMEE Guide No. 21: Curriculum mapping: a tool for transparent and authentic teaching and learning. *Med Teach*. 2001;23(2):123–137.
10. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *Lancet*. 2010;376(9756):1923–1958.
11. Wenger E. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press; 1998.
12. General Medical Council. *Outcomes for Graduates 2018*. London: GMC; 2018.
13. The Royal College of Radiologists. *Undergraduate Radiology Curriculum*. London: RCR; 2022.
14. Mampaey M, De Maeseneer M, De Maeseneer J, Van De Putte S, De Mey J. Radiology education in undergraduate medical training: An inter-university comparison in Belgium. *Insights Imaging*. 2020;11(1):118.
15. Bhatnagar G, Saifuddin A, Choudhury M, Hughes D, Shah A, Reznik R. Radiology for tomorrow's doctors: An undergraduate curriculum proposal. *Clin Radiol*. 2011;66(6):538–542.
16. Kourdioukova EV, Valcke M, Derese A, Verstraete KL. Analysis of radiology education in undergraduate medical doctors training in Europe. *Eur J Radiol*. 2011;78(3):309–318.
17. Darras KE, Spouge RJ, de Bruin AB, Sedlic A, Hague C, Forster BB. Undergraduate radiology education: A systematic review. *Acad Radiol*. 2019;26(4):528–539.
18. Gunderman RB, Siddiqui AR, Heitkamp DE, Kipfer HD. The vital role of radiology in the medical school curriculum. *AJR Am J Roentgenol*. 2003;180(5):1239–1242.
19. Deitte LA, Lin CY. Pulling it all together: A radiology case-based curriculum for preclinical medical students. *Acad Radiol*. 2012;19(6):746–753.
20. Hew KF, Lo CK. Flipped classroom improves student learning in health professions education: A meta-analysis. *BMC Med Educ*. 2018;18(1):38.
21. Lo CK, Hew KF. A critical review of flipped classroom challenges in health professions education. *Med Educ*. 2017;51(9):954–964.

22. Seely KA, Pelletier-Bui A, Moffett M, Egan R, Andolsek K, McNeill D. Team-based learning in medical education: a systematic review. *Med Teach*. 2021;43(4):396–403.
23. Michaelsen LK, Parmelee DX, McMahon KK, Levine RE. *Team-Based Learning for Health Professions Education: A Guide to Using Small Groups for Improving Learning*. Sterling, VA: Stylus Publishing; 2008.
24. Thistlethwaite JE, Davies D, Ekeocha S, Kidd JM, MacDougall C, Matthews P, Purkis J, Clay D. The effectiveness of case-based learning in health professional education. A BEME systematic review: BEME Guide No.23. *Med Teach*. 2012;34(6):e421–e444.
25. Chen F, Lui AM, Martinelli SM. A systematic review of the effectiveness of flipped classrooms in medical education. *Med Educ*. 2017;51(6):585–597.
26. Freeman S, Eddy SL, McDonough M, Smith MK, Okoroafor N, Jordt H, et al. Active learning increases student performance in science, engineering, and mathematics. *Proc Natl Acad Sci U S A*. 2014;111(23):8410–8415.
27. Prince M. Does active learning work? A review of the research. *J Eng Educ*. 2004;93(3):223–231.
28. Sweller J, Ayres P, Kalyuga S. *Cognitive Load Theory*. New York: Springer; 2011.
29. Harden RM. Learning outcomes and instructional objectives: is there a difference? *Med Teach*. 2002;24(2):151–155.
30. Nicol DJ, Macfarlane-Dick D. Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Stud High Educ*. 2006;31(2):199–218.

Keywords: Radiology education innovation. Clinical reasoning. Undergraduate medical curriculum. Interactive learning. Simulation-based teaching.

Pxxii, 14:30 - 14:55

Virtual reality for reducing student anxiety regarding high-fidelity simulation: A prospective, nonrandomised, historically-controlled study

Dr Toby Jackman, University of Exeter

High-fidelity simulation can be anxiety-provoking for undergraduate students. This project aims to assess whether a Virtual Reality (VR) solution can reduce student anxiety towards completing high-fidelity simulation teaching. Two cohorts' state anxiety scores before completing high-fidelity simulation are compared: students with in-session VR exposure versus the historical control with traditional teaching only. Both cohorts' anxiety scores are further compared to the general public.

Summary:

Background: Students experience anxiety towards participating in high-fidelity simulation (1), especially when simulating foundation doctors (2). Students desire new media technology in medical education (3) and Virtual Reality (VR) has been found to reduce nursing student anxiety pertaining to high-fidelity simulation (4).

Methods: A validated state anxiety questionnaire (5) was administered to 42 third-year medical undergraduates across 2 successive cohorts at one locality of the University of Exeter Medical School: 11 students received an online self-directed 'flipped classroom' resource for learning the ABCDE approach to managing acutely unwell patients; 31 received VR in-session teaching. Both cohorts then attended their first high-fidelity simulation teaching on the same topic. Welch's t-test was calculated to investigate for differences in anxiety between each cohort, and between historic population data (n = 250).

Results: There was a statistically significant difference between historical control and both intervention groups: student anxiety prior to high-fidelity simulation was lower than population means. There was no significant difference in anxiety dependent upon intervention group. Discussion Anxiety is not a significant barrier to undergraduate students participating in high-fidelity simulation in our locality, and VR does not lessen anxiety levels compared to online flipped classroom resources. Further research is recommended to investigate the impact of VR on confidence in ABCDE assessment, and to assess engagement and enjoyment of each modality.

References:

Yu JH, Chang HJ, Kim SS, Park JE, Chung WY, et al. (2021) Effects of high-fidelity simulation education on medical students' anxiety and confidence. PLOS ONE 16(5): e0251078. <https://doi.org/10.1371/journal.pone.0251078>

Paskins, Z., & Peile, E. (2010). Final year medical students' views on simulation-based teaching: a comparison with the Best Evidence Medical Education Systematic Review. *Medical teacher*, 32(7), 569-577.

Kron, F. W., Gjerde, C. L., Sen, A., & Fetters, M. D. (2010). Medical student attitudes toward video games and related new media technologies in medical education. *BMC medical education*, 10(1), 1-11.

Barrow, C. (2021). *Virtual Reality Simulation in Nursing Education to Decrease Student Anxiety*. Oklahoma City University.

Zsido, A. N., Teleki, S. A., Csokasi, K., Rozsa, S., & Bandi, S. A. (2020). Development of the short version of the spielberger state—trait anxiety inventory. *Psychiatry research*, 291, 113223.

Keywords: Anxiety. Simulation. Virtual reality.

Pxxiii, 14:30 - 14:55

Blended learning platforms: Are they a valuable resource for General Practice Trainees? Perspectives from trainers and trainees across the East of England

Dr Erin Weatherstone, Primary Care School NHSEoE

Technology has become an essential part of modern life so it is not surprising that medical education is evolving to incorporate it more and more. During the Covid-19 pandemic we had to alter the ways in which we communicate and connect with people. Adaptations had to be made to ensure that learners could continue to learn, educators had to be supported and well-being prioritised. In 2019, the East of England deanery introduced an online blended learning platform to trainees. The aim of this project was to evaluate the platform to identify the key successes and areas for improvement.

Summary:

Background

Technology has become an essential part of modern life. It is not surprising that medical education is evolving to incorporate more and more technology. In particular Covid-19 altered the ways in which we communicate and connect with people. Adaptations had to be made to ensure that learners could continue to learn, educators had to be supported and well-being/health prioritised (Wyres and Taylor, 2020). In 2019 the East of England introduced an online blended learning platform to multiple specialities including general practice (GP) trainees.

The aim of this project was to evaluate the current blended learning platform available to GP trainees and trainers to identify the key successes and areas for improvement. The purpose was also to assess in general what both trainees and trainers value most about blended learning platforms. Main evaluation points focused on accessibility, organisation and content.

Methodology

Two questionnaires designed with one for GP trainees and one for GP trainers containing 12 and 13 questions respectively. The questionnaire included both qualitative and quantitative questions with the quantitative questions using a 5-point Likert scale. The questionnaires were both peer and senior reviewed prior to distribution. Distribution was via email to all GP trainees and GP trainers in the East of England region via the primary care school administrative teams. The questionnaires were sent out twice: January 2025 and in March 2025. Responses were collected via an anonymous Microsoft form. Participants were encouraged to use free-text responses.

Key findings

Trainee questionnaire: There were 46 responses received. 98% of respondents thought online learning platforms were important in postgraduate medical education. Only 43% of trainees reported to be using the current online platform with 60% finding it easy to access and 70% viewing the current content is of high quality. Trainees wanted to see more interactive presentations, videos and lectures uploaded with content relating to clinical topics

and exam preparation a high priority amongst most trainees. They also wanted an online platform with easy accessibility and navigation as well as having high quality content.

Trainer questionnaire: There were 69 responses received. 90% felt online learning platforms were important in postgraduate medical education. Only 23% of trainers were currently using the platform but of those using the platform 70% felt the content was of high quality and 67% thought the content was helpful in preparing trainees for exams. Trainers wanted content relating to exam preparation, clinical topics and communication skills as a priority for their trainees and would also value content for to assist them with tutorial preparation.

Learning points and take-home message

Previous evidence has suggested blended learning can improve knowledge acquisition (Vallée et al., 2019) and may potentially be superior to more traditional teaching methods (Lockey et al., 2022). Overall, this project demonstrates a role and need for high quality online educational resources for both trainers and trainees. However, although providing good quality medical education resources is vital it is important not to forget that functionality and accessibility can often be limiting factors for trainee/trainer engagement.

References:

Lockey, A. et al. (2022) 'Blended Learning in Health Care Education: An Overview and Overarching Meta-analysis of Systematic Reviews', *Journal of Continuing Education in the Health Professions*, Publish Ahead of Print(4). Available at: <https://doi.org/10.1097/ceh.0000000000000455>.

Vallée, A. et al. (2019) 'Effectiveness of Blended Learning compared to Traditional Learning in Medical Education: a systematic review and meta-analysis (Preprint)', *Journal of Medical Internet Research*, 22(8). Available at: <https://doi.org/10.2196/16504>.

Wyres, M. and Taylor, N. (2020) 'Covid-19: using simulation and technology-enhanced learning to negotiate and adapt to the ongoing challenges in UK healthcare education', *BMJ Simulation and Technology Enhanced Learning*, 6(6), pp. 317–319. Available at: <https://doi.org/10.1136/bmjstel-2020-000642>.

Keywords: Blended learning. Technology.

Pxxiv, 14:30 - 14:55

Challenging stereotypes in clinical practice: A simulation workshop to improve bias awareness, cultural competence and communication skills

Dr Niamh Gallagher, Dr Dana Le Carpentier, Liz Raynor and Dr Toby Jackman, University of Exeter

Cultural stereotyping and unconscious bias are well-documented issues within clinical medicine. This study aims to evaluate whether a simulation-based teaching session for year four medical students can promote cultural awareness, patient-centred communication, and preparedness to address prejudice. A workshop utilizing a simulated-patient actor was conducted in small groups of students who completed pre- and post-intervention questionnaires. The workshop entitled "Stereotypes in medicine" included learning objectives around unconscious bias and the clinical encounter, clinical stereotypes and how to deal with discriminatory comments or uncomfortable situations. Questionnaires were designed around evidence-based measures of communication, bias awareness, and cultural competence.

Summary:

Background and Significance

Cultural stereotyping and unconscious bias are well-documented issues within clinical medicine (Dehon et al., 2017; Zestcott, Blair and Stone, 2016). Research indicates that medical students often enter training with implicit biases that can persist throughout their careers, negatively impacting patient interactions (Sabin, 2022). Studies highlight the need for targeted interventions to improve cultural competence and mitigate prejudice (Rukadikar, 2022). This study evaluates whether a simulation-based teaching session for medical students can promote cultural awareness, patient-centred communication, and preparedness to address prejudice.

Research Methodology

A one-hour simulation workshop, with one simulated patient actor and one tutor, was conducted in small groups of year four medical students. Students completed pre- and post-intervention questionnaires, adapted from established assessment tools (National Cancer Institute, 2022; Jeffreys and Smolaka, 1994; Campinha-Bacote, 2007; Carpenter et al. 2009; Gonzalez, Kim and Marantz, 2014; Rathert, Wyrwich and Boren, 2013; Schim, Doorenbos, and Borse, 2003; Walkowska et al, 2023). Responses were collected using a 5-point Likert scale. We calculated the change in mean responses between pre- and post-teaching (Δ), and performed paired sample t-tests for each question assessing whether attitudes significantly changed.

Key Findings

All 26 students who participated in the simulation completed the questionnaires. Results indicated statistically significant improvements in all questions. The greatest improvement was in challenging biases ($\Delta = 1.04$, $t = -5.1$, $p < 0.001$), with lesser improvements in addressing challenging patient behaviours ($\Delta = 0.89$, $t = -4.96$, $p < 0.001$) and communication with patients exhibiting challenging emotions ($\Delta = 0.81$, $t = -4.6$, $p = 0.001$). Overall, findings suggest the intervention was effective in enhancing students' awareness of stereotypes, prejudices and increased cultural competence.

Lessons for Healthcare Educators

This study shows that simulation of challenging behaviours and open discussions around bias and discrimination, including both being the subject and witness to it, may be a useful tool in communication and preparedness in addressing prejudice. Although all result means exhibited improvements, a minority of students reported negative changes, particularly in confidence in understanding and addressing the needs of patients with diverse cultural and social backgrounds. There were no accompanying negative written comments. However, this should not deter educators from holding similar sessions or discussing a sensitive and challenging topic. Moreover, it indicates the need for further follow-up sessions, discussions, and qualitative feedback from students. No data was collected on learner, teacher, or actor demographics or lived experiences, which could provide valuable background insight and help guide curriculum development. It would be helpful to obtain formal feedback from the simulated actors which was not within the scope of this study.

Relevance to Healthcare Leadership

As clinical educators we are producing leaders for the future. This session is designed to equip medical students with the tools to understand and address issues within the topic of equity, diversity and inclusion. As an unintended outcome it may also enable them to have their own sensitive discussions, educating and learning from colleagues, as well as within their personal lives.

References:

- Campinha-Bacote, J. (2007) Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals – Student Version (IAPCC-SV). Transcultural C.A.R.E Associates. [online] Available at: <https://www.transculturalcare.net> (Accessed: 16 January 2025)
- Carpenter, J.K. et al. (2009) Doctors and Nurses: Stereotypes and Stereotype Change in Interprofessional Education. ResearchGate. [online] Available at: <https://www.researchgate.net> (Accessed: 11 January 2025)
- Dehon E, Weiss N, Jones J, Faulconer W, Hinton E, Sterling S. (2017) A Systematic Review of the Impact of Physician Implicit Racial Bias on Clinical Decision Making. *Academic Emergency Medicine*, 24(8), pp. 895-904. Available at: <https://doi.org/10.1111/acem.13214>
- Gonzalez, C.M., Kim, M.Y. and Marantz, P.R. (2014) Implicit bias and its relation to health disparities: A teaching program and survey of medical students. *MedEdPORTAL*, 10. [online] Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC> (Accessed 23 July 2025)
- Jeffreys MR, Smodlaka I. (1999) Construct validation of the Transcultural Self-Efficacy Tool. *Journal of Nursing Education*, 38(5), pp. 222-7. Available at: <https://doi.org/10.3928/0148-4834-19990501-09>
- National Cancer Institute (2022). Health Information National Trends Survey 6. [online] U.S. Department of Health and Human Services, National Institutes of Health. Available at: <https://hints.cancer.gov/docs/Instruments/HINTS6-AnnotatedEnglishInstrument.pdf> (Accessed: 11 July 2025)
- Rathert, C., Wyrwich, M.D. and Boren, S.A. (2013) Patient-centered communication in the era of patient-centered care: A model for analysis. *BMC Nursing*, 12(1), p.14. [online] Available at: <https://bmcnurs.biomedcentral.com> (Accessed: 10 January 2025].
- Rukadikar C, Mali S, Bajpai R, Rukadikar A, Singh AK. (2022) A review on cultural competency in medical education. *Journal of Family Medicine and Primary Care*, 11(8), pp. 4319-4329. Available at: https://doi.org/10.4103/jfmpc.jfmpc_2503_21
- Sabin JA. (2022) Tackling Implicit Bias in Health Care. *New England Journal of Medicine*, 387(2), pp. 105-107. Available at: <https://doi.org/10.1056/NEJMp2201180>
- Schim, S.M., Doorenbos, A.Z. and Borse, N.N. (2003) Cultural Competence Among Healthcare Providers: The Development of the Cultural Competence Assessment Instrument. *Journal of Nursing Measurement*, 11(1) pp. 29-40 Available at: <https://doi.org/10.1891/106137403780954949>
- Walkowska, A., Przymuszała, P., Marciniak-Stępak, P., Nowosadko, M. and Baum, E. (2023) Enhancing cross-cultural competence of medical and healthcare students with the use of simulated patients—A systematic review. *International Journal of Environmental Research and Public Health*, 20(3), p. 2586. [online] Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9916152> (Accessed 9 January 2025)
- Zestcott CA, Blair IV, Stone J. (2016) Examining the Presence, Consequences, and Reduction of Implicit Bias in Health Care: A Narrative Review. *Group Processes &*

Intergroup Relations, 19(4), pp. 528-542. Available at:
<https://doi.org/10.1177/1368430216642029>

Keywords: Communication. Prejudice. Culture. Bias. Simulation.

Pxxv, 14:30 - 14:55

Peer power: Student-led mock OSCEs to demystify feedback and build confidence

Dr Jawad Ahmad, Mohammed Walid Ahmed, Dr Bethany Taylor, Dr Sebastian Yim and Marianne Morgan, Sandwell General Hospital

High-stakes OSCEs can cause anxiety and generate uncertainties. We piloted a peer-led mock OSCE where students alternated examiner and candidate roles across six authentic stations with structured feedback. In 44 survey responses (pre N=21; post N=23), mean confidence increased by 70%; feedback usefulness and comfort giving/receiving feedback were $\geq 4.3/5$, and 100% of participants would recommend the format. Designed to be low-cost, low-carbon, and low-staff input, the model builds feedback literacy, psychological safety, and learner independence. Delegates will leave with a practical, ready-to-implement blueprint, adaptable templates, and guidance to embed sustainable, student-driven OSCE preparation in their own programmes.

Summary:

Background: Objective Structured Clinical Examinations (OSCEs) are high-stakes assessments that often generate anxiety and uncertainty. Preparation models typically demand significant staff input yet offer inconsistent feedback. Evidence shows peer-assisted learning and structured feedback improve preparedness and self-regulated learning while reducing workforce burden (Secomb, 2008; Boud and Molloy, 2013). We designed a peer-led mock OSCE to (1) demystify marking, (2) normalise feedback exchange, and (3) test a scalable, resource-light model sustained with minimal staff input, informed by social learning principles (Bandura, 1977).

Methodology: Year 3 and Year 4 medical students were paired within their own year groups to ensure comparable knowledge levels and psychological safety. Each pair completed six stations—two case-based discussions, two communication histories, and two clinical examinations—alternating roles as examiner and candidate. Stations followed a structured format: two minutes' reading, eight minutes' performance, and three minutes' feedback using standardised mark sheets and role-player briefs. Authenticity was reinforced with labelled bays and visible station prompts. A facilitator-led debrief was provided for Year 4 students. Pre- and post-session surveys captured confidence, concerns, perceived value, and feedback experiences. Quantitative items (Likert 1–5) were analysed descriptively, and free-text comments underwent rapid content analysis to identify common themes.

Key Findings: 21 students completed the pre-survey and 23 post-survey. Mean confidence markedly increased from 2.33 (SD 0.84) to 3.96 (SD 0.69). Ratings were high for confidence/skills (4.30/5), peer-examiner format (4.13/5), feedback usefulness (4.35/5), and comfort with feedback (4.35/5). All respondents (100%) would recommend the format. Initial concerns centred on nerves and knowledge gaps. Students valued the range of stations, real-time feedback, and rehearsal under exam conditions. Comments included: "Really useful," and "Confidence boost—now know what to expect." Suggestions included adding prescribing and increasing station numbers.

Key Lessons:

- Assessment literacy & feedback: Alternating roles clarified marking and embedded key graduate skills in giving, receiving and acting on feedback
- Psychological safety: Pre-briefs, clear roles, and short peer feedback promoted safe challenge and reflection, transferable to other skills teaching.
- Faculty efficiency: Once stations are written, students can run sessions with minimal staff input; educators step in mainly for calibration or debrief.
- Equity & belonging: Peer-led practice reduced fear, normalised help-seeking within peers, and built inclusion, especially valuable for earlier learners.

Conclusion: This model is cost-effective, low-carbon, and adaptable. By reusing resources, redistributing teaching roles, and enabling frequent practice independent of teachers' time, it enhances preparedness while enforcing feedback literacy and self-regulated learning. In doing so, it supports workforce readiness, retention, and the sustainability of healthcare education.

References:

Bandura, A. (1977) Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.

Boud, D. and Molloy, E. (2013) 'Rethinking models of feedback for learning: the challenge of design', *Assessment & Evaluation in Higher Education*, 38(6), pp. 698–712.

Secomb, J. (2008) 'A systematic review of peer teaching and learning in clinical education', *Journal of Clinical Nursing*, 17(6), pp. 703–716.

Keywords: OSCES. Peer-assisted learning. Feedback literacy. Sustainable education. Simulation